FINANCIAL SECTOR ASSESSMENT

INDIA

OCTOBER 2017

FINANCE & MARKETS GLOBAL PRACTICE

SOUTH ASIA REGIONAL VICE PRESIDENCY

A joint IMF-World Bank mission visited India during December 8-14, 2016; March 14-31, 2017; and June 22-July 7, 2017, to carry out an update of the Financial Sector Assessment Program (FSAP) conducted in 2011.[1] This report summarizes the main findings of the mission, identifies key financial sector vulnerabilities, and provides policy recommendations.

[1] The team comprised Team Leader (Aurora Ferrari, Mission Chief, World Bank), Team Leader (Marina Moretti, Mission Chief, IMF), Marius Vismantas, Loic Chiquier, Massimo Cirasino, Harish Natarajan, Emile van der Does de Willebois, Anuradha Ray, Meghna Raghunath, Ines Gonzalez Del Mazo, and Igor Zuccardi Huertas (all World Bank); Hee Kyong Chon, Sonali Das, Jose Garrido, Silvia Iorgova, Suchitra Kumarapathy, Fabian Lipinsky, Dermot Monaghan, Diarmuid Murphy, Oana Maria Nedelescu, Kristel Poh, and Yasushi Sugayama (all IMF); and Jonathan Fiechter, Janne Harjunpää, David Hoelscher, Jonathan Katz, Lalit Raina, Charles Taylor, Ian Tower and Jan Willem van der Vossen (external experts).

CONTENTS

Tables

GLOSSARY

AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
AQR	Asset quality review
BC	Business correspondent
BRICs	Brazil, Russia, India, and China
CAR	Capital adequacy ratio
CBLO	Collateralized borrowing obligations
CCIL	Clearing Corporation of India
CCP	Central counterparty
CRILC	Central Repository of Information on Large Credits
CSP	Customer Service Points
DICGC	Deposit Insurance and Credit Guarantee Corporation of India
ECB	External commercial borrowing
ELA	Emergency liquidity assistance
FALLCR	Facility to Avail Liquidity for Liquidity Coverage Ratio
FDMC	Financial Data Management Center
FIAC	Financial Inclusion Advisory Committee
FMI	Financial market infrastructure
FSAP	Financial Sector Assessment Program
FSDC	Financial Stability and Development Council
FSDC-SC	Financial Stability and Development Council Subcommittee
FSLRC	Financial Sector Legislative Reforms Commission
FX	Foreign Exchange
GDP	Gross domestic product
GIC	General Insurance Corporation of India
GOI	Government of India
GST	Goods and Services Tax
HFC	Housing finance company
HTM	Held to maturity
IBBI	Insolvency and Bankruptcy Board of India
IDF	Infrastructure development fund
IFRS	International Financial Reporting Standards
IIFCL	India Infrastructure Finance Company
InvIT	Infrastructure Investment Trust
IRDAI	Insurance Regulatory and Development Authority of India
LCR	Liquidity coverage ratio
LIC	Life Insurance Corporation of India
MFI	Micro Finance Institution
ML/FT	Money laundering and terrorist financing
MOF	Ministry of Finance
MOU	Memorandum of Understanding
MUDRA	Micro Units Development and Refinance Agency
NABARD	National Bank for Agriculture and Rural Development
NBFC	Nonbanking financial company
NDTL	Net demand and time liabilities
NHB	National Housing Bank
NIIF	National Investment and Infrastructure Fund
NPA	Non-Performing Asset
PCA	Prompt Corrective Action
PMJDY	Pradhan Mantri Jan Dhan Yojana (National Financial Inclusion Program)

PSBs	Public Sector Banks
PSL	Priority Sector Lending
RBI	Reserve Bank of India
RC	Resolution Corporation
RMBS	Residential mortgage-backed securities
RRBs	Regional Rural Banks
RSE	Registered securities exchange
S4A	Scheme for Sustainable Structuring of Stressed Assets
SARFAESI	Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (Act)
SDR	Strategic debt restructuring
SEBI	Securities and Exchange Board of India
SIDBI	Small Industries Development Bank of India
SLR	Statutory Liquidity Requirements
SME	Small and medium-sized enterprises
SPARC	Supervisory Program for Assessment of Risk and Capital
WEO	World Economic Outlook

EXECUTIVE SUMMARY

1. **Against the backdrop of important structural reforms and terms of trade gains, India recorded strong growth in recent years in both economic activity and financial assets.** Increased diversification, commercial orientation, and technology-driven inclusion have supported growth in the financial industry, backed by improved legal, regulatory, and supervisory frameworks. Yet, the financial sector is grappling with significant challenges, and growth has recently slowed. High nonperforming assets (NPAs) and slow deleveraging and repair of corporate balance sheets are testing the resilience of the banking system and holding back investment and growth.

2. **Stress tests show that while key banks appear resilient, significant vulnerabilities remain.** The largest banks appear sufficiently capitalized and profitable to withstand a deterioration in economic conditions, reflecting relatively solid capital buffers and, particularly for the private banks, core profitability that is strong enough to cover credit costs. There is a group of public sector banks (PSBs) where vulnerabilities seem highest; these banks would require additional capital under the baseline scenario and some would almost deplete capital buffers due to growing NPAs and provisioning needs if stress intensifies. Capital needs are manageable in the aggregate, ranging between 0.75 percent of GDP in the baseline to 1.5 percent of GDP in the severe adverse scenario.

3. **Much needed efforts are now underway to accelerate the process of NPA resolution.** The various debt restructuring schemes introduced over the past years have had limited uptake, and agreement among lenders has been hampered by their uneven capacity to withstand losses. The RBI was recently empowered to direct restructuring cases to the insolvency process, with the potential for insolvency used to exert pressure on creditors to finalize debt restructuring agreements outside the court process. This new approach shows promise of further progress, but more needs to be done to ensure that the debt restructuring process gains traction: banks need additional provisions and capital buffers; corporates need to undergo sustainable financial and operational restructuring; and infrastructure for debt restructuring needs to be improved.

4. **Further recapitalization and restructuring of PSBs, together with firm actions to improve their governance, are needed to support these efforts**. Recapitalization should focus on attracting fresh private capital, reducing the share of the state (and state-owned entities) in PSBs to the mandated minimum of 52 percent, which is already the authorities' intention. Beyond that, a clear plan should be developed to deal with PSBs that will not be able to attract private capital. Provision of public capital should be contingent upon meaningful restructuring of PSBs, and exit of weak banks (via sale of viable assets and liabilities to stronger public and private banks) should be considered, as consolidating weak PSBs into stronger ones risks undermining the viability of the acquirer. Improving PSBs governance, as set out in the Indradhanush Plan, needs to be firmly pursued to enable qualified senior management and Board members to be appointed for extended mandates, strengthen risk management and limit the scope for government interference.

5. **The steps above should be part of a broader strategy to reduce the role of the public sector in the financial system**. The state footprint needs to be rebalanced away from large ownership and directed lending toward better leveraging of public capital. A mix of greater participation of the private sector in capitalizing the PSBs and full privatizations would boost the capacity of the banking sector to support credit, and reduce moral hazard and fiscal contingencies. Gradually reducing the statutory liquidity requirements (SLR) and priority sector lending (PSL) would also help intermediate funds more efficiently toward productive activities.

6. **Additional effort is needed in several areas of an overall robust financial oversight framework.** The supervisory agencies have developed thorough supervisory processes, supported by good information systems and highly experienced and committed professional staff. Further efforts should focus on increasing RBI independence and enhance the RBI's powers over PSBs. Loan classification and provisioning rules should be reviewed to incorporate observed losses and reduce special loan categories. Other priorities include unifying the oversight of commodities markets and transferring legal authority over public listed company reporting to Securities and Exchange Bank of India (SEBI) and introduce a risk-based review of company disclosures.

7. **The planned introduction of a special resolution regime for financial institutions is an important step toward aligning the safety net with international standards**. Efforts need to focus on avoiding duplication of supervisory responsibility by the RBI and the proposed Resolution Corporation for going-concern institutions, and on ensuring equal treatment of domestic and foreign liability holders. There is scope to enhance other elements of the safety net, including the deposit insurance emergency liquidity assistance (ELA) and crisis preparedness.

8. **A separation of the oversight and wholesale funding functions of the National Housing Bank (NHB) would benefit the development of the system.** Housing finance companies (HFCs) are growing fast but except for the largest ones, their funding model is not sustainable. Refinancing by NHB has become insignificant, which is out of line with its mandate to provide wholesale funding. The smaller HFCs have limited access to long-term funding and cannot raise term deposits. Ownership transfer of NHB to Ministry of Finance (MOF) could spur crowding in of private funding into the housing finance market. Lastly, a transfer of NHB oversight function to RBI would ensure that housing finance lending done by HFCs and banks is overseen by a single entity and ensure appropriate resources.

9. **As the authorities intensify efforts in infrastructure finance, a "cascade" diagnostic is timely.** Such upfront diagnostic would cover both upstream and downstream phases of the overall infrastructure finance system. It would determine what it may take to attract more private sector funding, identify cross-sectoral challenges and specific sector reforms, and adjust funding and risk-sharing instruments to achieve the optimal leverage of scarce public resources. The operational and prudential treatment of the new credit enhancement fund and its products is essential to ensure that interested institutions have right incentives and long-term bond markets are leveraged.

10. **Remarkable progress has been made in terms of financial inclusion for individuals but account usage remains limited.** Measures to boost digitalization would be key in enhancing usage. To spur digital payments, the authorities could extend tax rebates to either payer or payee, or both. Furthermore, building on the ongoing shift towards direct benefit transfers, all large payment flows in the private sector (like salary payments and payments across value chains), and all government payments (like agricultural subsidies) should be migrated from cash to digital means.

11. **The upcoming financial inclusion strategy should also cover access to credit and include a redesign of the priority sector lending (PSL) program.** While PSL had a key role in the expansion of bank branch networks, an analysis of the PSL loan allocation at the state level seems to indicate that relatively lower-income states remain largely underserved by the program and PSL allocations are mainly in metropolitan and urban/semi urban areas. Upon conducting a credit gap analysis and cost-benefit diagnostic, PSL should be redesigned to ensure sharper targeting and be based on incentives rather than mandatory targets.

MAIN RECOMMENDATIONS

Recommendations	Authority	Time frame
Policies to address vulnerabilities		
- Improve the governance and financial operations of PSBs and develop a strategic plan for their consolidation, divestment, and privatization.	MOF	S
- Conduct granular assessments of banks' capital needs and require additional provisions and swift recapitalization and restructuring.	RBI, MOF	S
- Redesign the corporate debt restructuring mechanisms to make them more flexible.	RBI	S
Financial sector oversight framework		
Banking supervision		
– Review loan classification and provisioning rules in the context of International Financial Reporting Standards (IFRS), and with respect to special loan categories.	RBI	S
– Amend the legal framework to provide RBI with full supervisory powers over PSBs and clarify its legal independence.	GOI	M
Securities regulation		
– Transfer legal authority over public listed company reporting to SEBI and introduce a risk-based review of company disclosures.	GOI, SEBI	M
– Adopt a strategy to unify regulation of commodities trading markets.	SEBI, GOI	S
Crisis management		
– Resolution legislation should preserve RBI's full supervisory authority over going concern banks and promote equal treatment of domestic and foreign creditors.	GOI	S
– Improve the framework for emergency liquidity assistance, deposit insurance and crisis preparedness.	RBI, GOI	M
Market development		
Long-term finance		
- Undertake a cascade diagnostic on overall infrastructure finance system	MOF	S
- Establish an appropriate operational and prudential framework for the upcoming credit enhancement fund for infrastructure finance	MOF, RBI	S
- Transfer oversight functions of NHB to RBI and NHB ownership to MOF	MOF, RBI	S
Financial inclusion and digitalization		
- Ensure that the upcoming financial inclusion strategy focuses on access for all underserved segments and is preceded by a review of all relevant government programs and assign responsibility for implementation to Financial Inclusion Advisory Committee (FIAC) under Financial Stability and Development Council (FSDC)	GOI	S
- Undertake a cost-benefit and gap diagnostic of the PSL program and develop a plan to reduce its scope and ensure it benefits underserved segments	RBI, MOF	M
- Shift to electronic platforms large payment flows like salary payments; government payments beyond cash transfers to areas like agricultural procurement; and payments across business value chains	RBI, GOI	M

* S = short-term, M = medium-term

I. MACROFINANCIAL CONTEXT

A. The Indian Financial Sector

12. **The Indian financial system is undergoing a gradual structural shift**. The size of the financial system has remained broadly stable in terms of GDP (136 percent) since the 2011 FSAP, nearly doubling in nominal terms (Figure 1, Table 1). The financial system is diversifying, with market shares of nonbank intermediaries (notably, mutual funds and nonbank financial companies (NBFCs)) and private sector players increasing gradually—albeit from a low base. Banks' share in credit flows fell from 50 percent during FY2015/16 to 38 percent in FY2016/17, as corporates increased private debt placements and issued commercial paper, replacing bank funding with market sources.

13. **Despite these trends, banks and the state continue to dominate the financial system**. Banks account for 60 percent of financial system assets, with 70 percent of banking assets held by PSBs. The state-owned Life Insurance Corporation (LIC) and the Employees' Provident Fund dominate insurance and pensions and are key providers of funds in debt markets. Four development banks hold small market shares. All banks must hold 20 percent of assets in government securities, partly crowding out private credit, which at 52 percent of GDP lags peer countries (Figure 2). Banks must also allocate 40 percent of net credit to "priority sector lending" (PSL); at least 15 percent of investments by both life and non-life insurers must be in infrastructure or housing (but may be met by investments in central and state government securities).

14. **Interconnectedness is high domestically and limited across borders**. The banking system has a tiered structure, with a few large banks at the core dealing mostly with each other, and smaller banks with minimal exposures to each other. Twelve financial conglomerates create potential for spillovers via ownership linkages. Cross-border lending and borrowing by Indian banks are small, at 10 percent and 14 percent of GDP, respectively, in 2016. The dominant role of the state has discouraged foreign entry, although some foreign banks have found market niches—foreign exchange (FX), wealth management—while reinsurers have strongly increased their branch presence.

15. **Financial markets are characterized by liquid FX, derivatives, and short-term money markets; a large government bond market; and a small but growing corporate bond market**. Money markets are dominated by centrally cleared collateralized borrowing and lending obligations (CBLO), reflecting the strong presence of mutual funds as investors; term markets (beyond overnight) are not very deep. The government debt market is well developed (42 percent of GDP at end-2016) The corporate bond market is growing rapidly, but remains small (15 percent of GDP) and is dominated by private placements and financial sector issuers. Equity markets reached a market capitalization of 73 percent of GDP at end-September 2016, similar to peer countries.

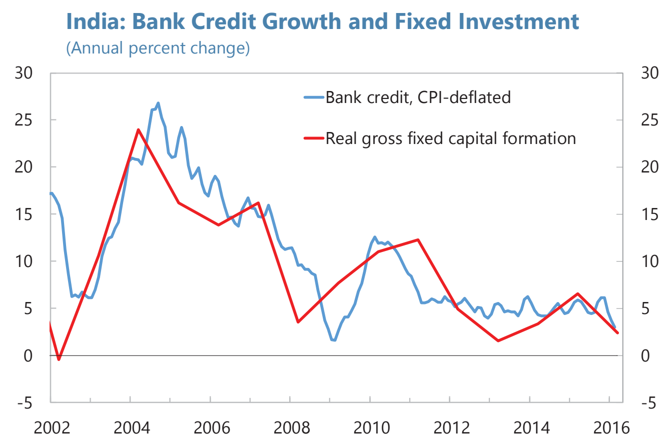
16. **Policy initiatives to foster access to bank accounts for individuals are bearing fruit**. Several initiatives, such as the establishment of "no frills" accounts, digitalization of some government payments, and the introduction of a unique biometric identification number, have been instrumental in increasing the transaction accounts penetration to 65 percent of adults in 2015, from 48 percent in 2013. This progress has also benefited traditionally underserved segments (Figure 3).

B. Macrofinancial Conditions and Risks

17. **India's growth has slowed recently, but its economic outlook remains positive**. Following a period of sustained strong performance, growth slowed to 7.1 percent in FY2016/17, and decelerated to 5.7 percent in the first quarter of FY2017/18. Structural weaknesses related to the twin balance sheet problem in the corporate and banking sectors, as well as transitory shocks from the November 2016

currency exchange initiative[2] and the July 2017 Goods and Services Tax rollout contributed to the slowdown. Real GDP growth is projected for 6.7 percent in FY2017/18 and 7.4 percent in FY2018/19. Low oil and energy prices have helped improve the current account and fiscal positions, and reduced inflation, which remained within the medium-term target band. Gradual fiscal consolidation continues, with a budget deficit targeted at 3.2 percent of GDP (authorities' definition) in FY2017/18, down from 3.5 percent a year earlier. Going forward, significant economic and structural reforms, particularly productivity improvements, benefiting from the Goods and Services Tax (GST) are expected to help raise India's medium-term growth to above 8 percent.

18. **Slow deleveraging and repair of corporate balance sheets is the main domestic source of risks.** The build-up of high corporate leverage to support infrastructure investments in the 2000s was largely financed by PSBs. Deteriorating global and domestic conditions in FY2013/14 and structural bottlenecks (e.g., delays in environmental clearances and land acquisition permits) took a toll on firms' debt repayment capacity, particularly in metals, engineering, and transportation infrastructure (Figure 4) and led to a marked deterioration in banks' asset quality. Further shocks to corporate health (such as , weaker demand or higher interest rates) could magnify bank losses, which, if coupled with slow progress with decisively addressing problems in the PSBs, would undermine lending, recovery of private investment, and economic growth. Household debt has been expanding but, at about 10 percent of GDP, it is not a material source of risk.



Sources: Haver Analytics; and IMF staff estimates.

19. **Key external risks arise from intensified global financial volatility and slower global growth**. A global risk re-pricing and surge in financial markets volatility could lead to disruptive capital outflows and an increase in the cost of funding of corporates. A slowdown in the economic growth of India's major trading partners would compress exports and firms' profits, and put further downward pressures on their debt-servicing capacity and on banks' asset quality.

II. RISK ASSESSMENT

A. Financial Sector Conditions

20. **Vulnerabilities in banks have risen in tandem with those in the corporate sector**. Deteriorating economic conditions have led to increased loan restructurings, which for a while benefited from lenient prudential treatment and kept NPAs at relatively low levels. Important steps taken by the RBI in FY2015/16, including a tightening of prudential regulations and an Asset Quality Review (AQR), resulted in a large migration of restructured loans into NPAs and new NPA formation. The PSBs' stressed assets reached 15.6 percent of gross loans by end-March 2017, with high levels of

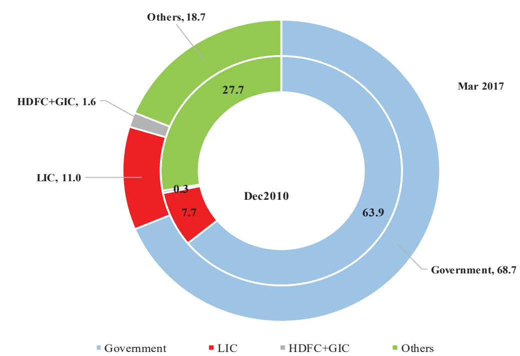
[2] In an effort to curb corruption, black money (tax evasion), counterfeit currency, and terrorism financing, the authorities withdrew the legal tender status of 500 and 1,000 Rs. banknotes on November 8, 2016 (equivalent to 86 percent of the value of currency in circulation) and gradually introduced new banknotes of Rs. 500 and Rs. 2000.

distress in metals, cement, construction, and textiles. Stressed assets were 4.6 percent for private banks at end-March 2017 (Table 2). NPAs are also highly concentrated, with the top 12 cases accounting for 25 percent of total NPA exposure and the top 40 cases accounting for about 60 percent.

21. **The deterioration in asset quality has weighed considerably on the PSBs' profitability (Figure 5)**. Following the AQR, provisioning needs in PSBs increased substantially, while NPA provisioning coverage dropped to about 40 percent. The PSBs' net interest margins also fell, due to the loss of interest income from NPAs (as interest income is appropriately recognized on a cash basis). Compounded with high overhead costs (e.g., labor cost is significantly higher than in private sector banks), PSBs experienced substantial losses in FY2015/16. The situation is particularly severe in some smaller banks (three PSBs and two private banks) struggling with high NPAs and weak capital positions, which raises questions about their viability.

22. **Lingering asset quality issues and weak earnings continue to undermine PSBs' lending capacity**. The government's injection of Rs. 500 billion (0.3 percent of GDP) in FY2016/17 plus Rs. 348 billion (0.2 percent of GDP) raised by PSBs since March 2016, including from the Life Insurance corporation, helped rebuild capital buffers. However, PSBs remain less capitalized than private banks (capital adequacy ratio of 12 percent and 15.5 percent, respectively). Also, measures put in place to support NPA resolution have had limited uptake (Box 1). As a result, credit growth in PSBs has decelerated sharply, reaching 0.8 percent a year in March 2017. Private sector banks only compensated part of the PSBs' credit decline, while fragile corporate balance sheets continue to weigh on credit demand.

Public Sector Banks: Shareholdings by Sector
(In percent of total)

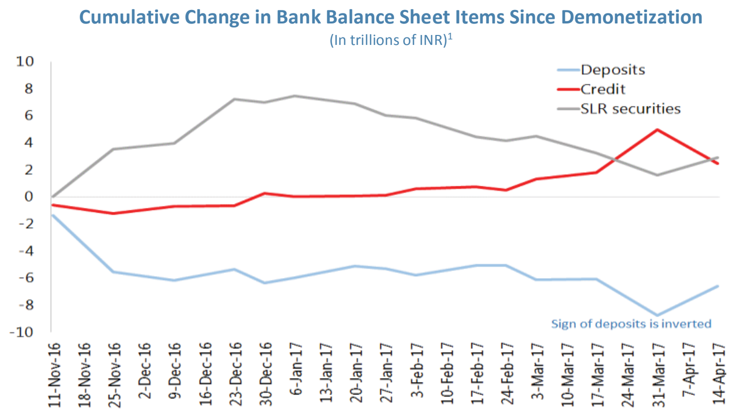


Note: Includes 24 public sector banks. 2010 data for Oriental Bank of Commerce as of Dec-2010; end-FY2017 data for banks of the SBI group, other than SBI, are the latest available for 2016. For SBI, the data is latest available (post-merger). HDFC and GIC holdings of SBI assumed identical to Mar-2017.
Sources: Reserve Bank of India; Banks' shareholding pattern reports; annual reports and other investor presentations; moneycontrol.com; and IMF staff calculations.

23. **Continued farm loan waivers risk undermining credit culture and could have lasting effects on banks' asset quality and willingness to lend to farmers**. The overall waivers announced so far account for Rs. 880 billion (US$13.6 billion, 0.7 percent of GDP), benefitting over 10 million small farmers, and could potentially reach US$50 billion, or 2.6 percent of GDP. Similar waivers were granted most recently in 2008 (Rs. 520 billion), and led to a significant reallocation of bank lending away from districts with greater bailout exposure.[3]

[3] "The Economic Effects of a Borrower Bailout: Evidence form an Emerging Market," World Bank 2015.

24. **The currency exchange initiative provided impetus to use bank services and boosted bank liquidity, but this has subsided b**ank deposits (80 percent of banks liabilities) increased by Rs. 8.3 trillion (8.3 percent) by end-March 2017. The rise in liquidity triggered a welcome decline in bank funding costs and lending rates by end-January 2017, the weighted-average lending rate on new loans had declined by 56 basis points. Deposits declined by Rs. 5.2 trillion after restrictions were lifted, suggesting that the successful retention of funds may partly depend on the ability to spur greater use of digital transactions in a cash-dominated economy.



Sources: Reserve Bank of India; and IMF staff calculations.
[1] Based on weekly data since October 28, 2016, the last day with available data prior to demonetization.
[2] Sign of deposit growth is inverted; a more negative number reflects growth.

25. **Risks in other financial subsectors appear contained but warrant close monitoring**.

(a) **Risks in the life insurance sector are well diversified, while risks in non-life are mainly short-term**. Solvency ratios remain strong overall (Figure 6). Major risks in life insurance are market risk and mortality. Exposure to changes in interest rates is contained, as business has not been written with high guaranteed rates and the duration of liabilities and investment assets are largely matching. Insurers are not permitted to invest policyholders' funds outside India. The non-life insurance business is limited, except motor third-party liability, which is loss-making as premiums are fixed by regulation. Investment risk is low, but poor underwriting may reduce returns. Risks from weather-related events (floods) are increasing.

(b) **Risks from NBFCs are limited, but concentrations and growing reliance on debt financing should be monitored closely**. High concentration in lending to infrastructure (half of total NBFC credit) and stricter prudential rules (as NBFCs will shift to a 90-day NPA recognition norm after March 2018 from 120 days currently) will likely lead to an increase in NPAs. Debt financing, mainly from mutual funds and insurance companies, has risen to 38 percent of total liabilities, and is highly sensitive to market sentiment (Figure 6).

B. Bank Resilience

26. **The analysis of financial sector resilience focused on top 15 banks given their dominant role, and was underpinned by two adverse scenarios**. In the medium and severe adverse scenarios, domestic and external risks materialize as capital is withdrawn from major emerging markets and potential growth of India's major trading partners slows down in the face of weak corporate and bank balance sheets. GDP declines by one and two standard deviations, leading to an uptick in NPAs.

27. **The largest banks are resilient to stress, while medium and smaller banks show vulnerabilities.** The top 15 banks can be grouped into three groups, based on analysis of profitability and asset quality, and the results of stress tests. Stable Banks (6 banks representing 64 percent of assets of the top 15 banks) withstand adverse shocks throughout all three scenarios. Vulnerable Banks and Stressed banks (3 and 6 banks accounting respectively for 18 percent each of assets of the top 15 banks)

which require capital in the baseline scenario. Stress test results indicate that capital adequacy of some banks in the latter two groups fall below the hurdle rate in the baseline, while the other banks' operational buffers are almost entirely depleted. Capital shortfalls widen to 3 percent and 4.5 percent of risk-weighted assets in the severe adverse scenario in March 2020 for vulnerable and stressed banks, respectively.

28. **Capital needs are manageable in the aggregate, though bank-sovereign links should be monitored carefully**. Recapitalization needs range between 0.75 percent to 1.5 percent of GDP in the baseline and the severe adverse scenario. However, capital injections can exert pressures on the finances of the government (PSBs' principal shareholder); particularly under the currently limited fiscal space. Banks could generally withstand liquidity shocks.

C. Policies to Address Vulnerabilities

29. **The authorities have intensified their efforts to address the high level of NPAs**. The policy response to the NPA buildup in the banking system has evolved over time. Since forbearance was eliminated for debt restructuring in 2015, the RBI has promoted different debt restructuring schemes (see Box 2) to facilitate resolution of the largest cases. The restructuring schemes have had limited uptake, given lack of agreement among creditors with uneven loss-absorption capacities, perceived risks of personal legal liability for PSB staff, and rigid parameters for debt restructuring. Recently, the RBI was empowered to direct restructuring cases to the insolvency process, and a new Oversight Committee at the RBI was tasked with providing directions and revising restructuring plans. By end-June 2017, 12 borrowers representing 25 percent of PSBs' aggregate NPA exposure had been referred to the insolvency courts, with the other large cases to be resolved within a six-month period, or be referred to the insolvency court too. The potential for insolvency is used to put pressure on creditors to finalize debt restructuring agreements outside the court process.

30. **Successful deployment of the authorities' strategy to resolve NPAs and kick-start lending to the economy requires urgent focus in several areas.** The first two will be most critical:

(a) **Addressing upfront bank capital needs**. The RBI's drive to enhance bank provisions and capital is welcome and needs to continue providing PSBs with the right incentives to decisively tackle NPAs and restart lending. To ensure adequacy in calibrating the capital needs, the RBI should conduct more granular assessments of asset values, including such elements as detailed valuations of collateral and estimations of loss based on recent empirical workout evidence. Identification of capital needs could also be supported by independent business reviews of large borrowers (see below), with banks required to fully provision against the losses identified in the restructuring scenario, and to hold contingent capital buffers in case liquidation occurs.

(b) **Ensuring sustainable debt restructuring and meaningful business turnaround**. Credible valuations need to underpin the return of weak corporates to viability through financial and operational restructuring. Business viability could be assessed for the largest cases by undertaking independent business reviews (using for instance the valuation framework proposed by the Ministry of Corporate Affairs), commissioned by the Joint Lenders Forum or by the Creditors' Committee. Valuations to identify sustainable debt, including fresh financing, should be based on prudent cash-flow projections, while maturities of the restructured debt should follow arms-length market practice. Banks could be encouraged to enter arrangements with specialized investors providing management know-how and fresh capital.

(c) **Implementing the new insolvency and bankruptcy regime**. The newly created regime is comprehensive and aims at restructuring companies within ambitious timelines. Its institutional infrastructure, comprising of the National Company Law Tribunals, the Insolvency and Bankruptcy Board of India and insolvency professionals will need to build capacity over time. The courts will generate case law in deciding some of the most complex cases. In addition, some technical improvements to the law and regulation may be necessary, such as new rules for the insolvency of corporate groups and for the treatment of executory contracts.

(d) **Enhancing out-of-court restructuring**. There is scope to recast existing debt restructuring mechanisms and establish a new corporate out-of-court debt restructuring mechanism, allowing for flexible solutions to be adopted by creditors within strict time limits, and supported by penalties for uncooperative creditors. If necessary, restructuring plans can be made binding on nonparticipating creditors using the insolvency process or the company law instruments.

(e) **Oversight of banks' NPA management**. International good practice suggests that banks should have formal strategies to tackle NPAs, including ambitious operational targets to reduce NPAs over the medium term. The RBI should consider issuing guidance on NPA management practices and requiring the development of a full suite of tools, including use of joint ventures with NPA investors and fully delegated outsourcing contracts with NPA servicing and workout firms.

(f) **Deepening the market for distressed assets.**[4] Efforts should focus on further promoting private asset reconstruction companies, which could help infuse fresh capital as well as expertise in collections, business turnaround, and workout. The entry of foreign capital could be enhanced by allowing the application of the SARFAESI enforcement regime to all investors acquiring secured claims. Loosening the NBFCs' concentration limit on investment into one target would support future investment. Tax rules and practices could also be enhanced to ensure tax neutral treatment of NPA restructuring.

31. **Recapitalization and restructuring of PSBs should go hand in hand**. Efforts should remain focused on attracting private capital and reducing the share of the state (and state-owned entities) in PSB capital to the mandated minimum of 52 percent. The recapitalization and restructuring strategy should support the authorities' aim toward further consolidation of the banking industry, while avoiding mergers that could undermine the viability of the stronger PSBs. Exit of the weakest (small) banks should be considered, with voluntary transfer of liabilities and good assets to stronger market participants, leaving bad assets behind in liquidation. Consideration should also be given to further reducing the state's ownership stake, including full privatization of some of the banks and access to international bond markets. A blueprint for restructuring and privatization, with clear timeframes, could usefully guide these efforts.

32. **Attracting private capital and improving the operations of PSBs will require sustained efforts to strengthen governance**. The Indradhanush Plan introduced critical governance innovations in the PSBs, such as the creation of the Banks Board Bureau (BBB) to improve the quality of Board candidates, splitting the executive director position from that of the (nonexecutive) chairman, and attracting qualified private sector candidates for top positions. These measures need to be implemented.

---

[4] If the current strategy of directing the largest cases into a timebound insolvency process does not achieve the desired outcomes, the authorities may wish to reconsider the option of centralizing the resolution of NPLs through the creation of an AMC, especially for NPLs on PSBs books. An AMC would offer specialized expertise for managing the NPLs, free PSBs' management from the NPL resolution burden, and allow for better economies of scale and efficiency in their resolution – with an ultimate objective of maximizing the recovery value of the distressed assets. Important preconditions for the success of AMC include strong governance arrangements; expertise on business turnaround of the investors, and adequate transfer prices.

Going further, the BBB should be empowered to appoint and remove senior management of PSBs, drawing from a broad roster of qualified professionals. Ultimately, as it has been proposed, the BBB should become a holding company to manage the state's equity interest in banks on at arms-length basis. Other priorities are the removal of RBI officials from PSB Boards, which creates potential conflicts of interests with supervisory objectives; adopting model Board charters that would better define the terms of reference for Board members; and improving incentives for attracting high-caliber private sector candidates. Over the medium term, all PSBs should be fully subject to the banking law and the companies law.

III. FINANCIAL SECTOR OVERSIGHT FRAMEWORK

33. **Interagency cooperation has improved markedly since the establishments of the Financial Stability and Development Council (FSDC) in 2010**. All financial regulators participate in the FSDC, which is chaired by the Minister of Finance and covers—besides financial stability—financial sector development and inclusion. The adoption of an inter-agency Memorandum of Understanding (MOU) among the regulatory authorities in 2013 has boosted cooperation and information sharing across various financial sector authorities. Issues of relevance for broad intersectoral financial stability are discussed in an FSDC subcommittee (FSDC-SC), which is supported by four technical groups.

A. System-wide Oversight

Financial stability architecture

34. **Some major institutional reforms are in motion**. A high-level Financial Sector Legislative Reforms Commission (FSLRC) concluded that the Indian regulatory architecture was fragmented and, in 2013, proposed an overhaul of financial laws and financial sector oversight, including, among others, the establishment of a Unified Financial Agency for securities and insurance, a new centralized agency for data management (Financial Data Management Center, FDMC), and a Resolution Corporation (RC) subsuming the Deposit Insurance and Credit Guarantee Corporation of India (DICGC), and an upgraded resolution function. It also recommended that the FSDC be granted statutory powers for inter-regulatory macroprudential policy coordination. Among these reforms, the FDMC and the RC are moving forward, while others are still under consideration.

Macroprudential Policy

35. **The development of a fully operational framework for macroprudential policy remains a work in progress**. The FSDC-SC (led by the RBI governor), the executive arm of the FSDC is the main forum for inter-regulatory coordination on financial stability; the implementation of macroprudential policies rests with individual regulators. FSDC-SC seems to work well and RBI's systemic-risk-monitoring capacity has been enhanced. Two reforms could improve the current macroprudential policy framework. First systemic risk analyses should be carried out on an ongoing basis and be tailored more closely to macroprudential policymaking to ensure that decisions are timely and consistent. Second, the RBI could develop dashboards of systemic risk indicators to facilitate ongoing monitoring of broader financial sector risks and support FSDC-SC discussions; develop and monitor maps of flow-of-fund exposures across sectors; enhance analysis of linkages between corporate and banking balance sheets, and interconnectedness across banks and nonbanks; and deepen analysis of corporates' foreign currency mismatches, including hedging positions.

B. Supervision and Regulation

Banking supervision

36. **The RBI has made substantial progress in strengthening banking supervision since the last FSAP**. A key achievement was the introduction in 2013 of risk-based supervision through a comprehensive and forward-looking Supervisory Program for Assessment of Risk and Capital (SPARC) deploying a good mix of on- and offsite tools. The Basel III framework and other international guidance were implemented or are being phased in, including stricter regulations on large exposures. Domestic and cross-border cooperation arrangements are now firmly in place. The AQR and the strengthening of regulations in 2015 have improved distressed asset recognition. In April 2017, the RBI established a new Enforcement Department and revised its prompt corrective action (PCA) framework to incorporate more prudent risk-tolerance thresholds.

37. **Effective supervision requires stronger *de jure* independence and enforcement powers as well as a proactive supervisory stance**. The current gaps in the RBI's supervisory powers over the PSBs (i.e., the RBI cannot remove government-appointed PSB directors or management, force a merger, revoke a license, or trigger liquidation of PSBs), as well as extensive powers of the government to override RBI decisions should be addressed through legal amendments. Effective use of the enhanced supervisory tools and methodologies will require continued efforts to ensure a proactive supervisory attitude and willingness to "lean against the wind." To address conflicts of interest, ownership of the National Housing Bank should be transferred from the RBI to the MOF, and supervision of housing finance companies placed under the RBI.

38. **The RBI is reviewing loans classification and provisioning rules in the context of implementation of International Financial Reporting Standards (IFRS)**. It is important that regulatory parameters be reviewed to ensure they are in line with actual losses and cure rates, and that special loan categories be reduced.[5] The RBI should also consider a prudential filter as a regulatory floor after the introduction of expected loan loss provisioning (IFRS 9) in April 2018.

Insurance supervision

39. **Insurance legislation and supervision have been upgraded significantly**. Legislative changes adopted in 2015 improved the IRDAI's supervisory and regulatory powers and further opened the insurance market to foreign participation. The IRDAI strengthened policyholder protection and introduced solvency control levels and stronger nonlife reserving requirements. Insurance supervision is now more closely integrated into broader financial sector supervision, both domestically (supervision of financial conglomerates) and internationally (through participation in supervisory colleges). Investment regulations remain generally conservative.

40. **The introduction of risk-based solvency and supervision should be given priority**. The IRDAI needs to formulate and communicate a strategy, a plan, and a timetable for introduction of a risk-based capital adequacy framework. This should initially follow a standardized approach (not internal models), cover all types of risks, and require insurers to develop own risk-and-solvency assessments. The IRDAI should also develop a risk-based supervisory cycle, using impact and risk assessments to determine supervisory focus. Skills and expertise should be upgraded to this end.

---

[5] Special categories include loans for projects where commencement of commercial operation has been delayed for reasons beyond the control of the promoters, infrastructure projects involving delays in government approvals, etc.

41. **In the medium term, an increasingly market-based environment should help develop the sector in a more sustainable manner**. Mandatory minimum investments in infrastructure and housing should be reviewed to ensure that they are fully aligned with the IRDAI's primary objectives. The IRDAI and the government should also continue the ongoing reforms of the motor insurance market and undertake measures to eliminate policy support for public sector insurers (e.g., government guarantees for the liabilities of the Life Insurance Corporation, and General Insurance Corporation preferences over private reinsurers in the reinsurance business).

Securities regulation

42. **SEBI has made significant efforts to address the recommendations of the previous FSAP**. Amendments to the SEBI Act have granted SEBI additional investigative powers, created a special court that handles criminal cases filed by SEBI, and gave SEBI full authority to regulate pooled investment schemes exceeding Rs. 1 billion. SEBI has also expanded its staff and the scope of its regulatory programs, and developed a risk-based assessment matrix. The two major registered securities exchanges, the Bombay Stock Exchange and the National Stock Exchange, have been successfully demutualized. The deregistration of the 21 regional exchanges is almost complete, and companies meeting the new listing standards were transferred to a "Dissemination Platform."

43. **Compliance with listing requirements could be further enhanced**. There is scope to improve the ongoing compliance and enforcement reviews of listed companies' annual and periodic reports. Specifically, SEBI should develop a risk-based system for selective reviews of listed companies' reports. The transfer of legal authority on public listed company reporting from the Ministry of Corporate Affairs to SEBI would greatly facilitate this process.

44. **The regulatory and supervisory framework for commodities markets should be unified**. The current regulatory set-up is complex, with SEBI having responsibility on commodity derivatives markets, while central and state governments regulate commodity spot markets. Unifying the regulatory and supervisory framework for all commodities markets should be given priority as part of the authorities' intention to develop a modernization plan for regional commodity spot markets.

C. Oversight of Financial Market Infrastructures

45. **The RBI's regulation and oversight of the securities and derivatives clearing and settlement systems under its purview are broadly effective**. The FSAP assessed the Clearing Corporation of India (CCIL) against the Principles for Financial Market Infrastructures (FMI). The CCIL plays a critical role in all money market segments in India and acts as a central counterparty (CCP) for the government securities repo and secondary markets. The RBI has designated the CCIL as a Qualified CCP and has authorized it to offer FMI services to several money market segments. The detailed assessment of the CCIL concluded that it has a prudent risk management framework and a high operational reliability.

46. **The CCIL operating rules and procedures, liquidity risk management, segregation and portability, and tiered participation could be improved further**. Specifically, legal ambiguity with respect to point of irrevocability and settlement finality for contested trades should be resolved. The CCIL should further enhance its stress testing scenarios and methodologies, and could consider instituting mechanisms to monitor risks arising from the tiered arrangements in the government securities segment. Finally, the oversight framework of the capital markets FMIs could be further enhanced by increasing supervisory resources at SEBI, completing self-assessments and disclosure framework for all FMIs, and formalizing cooperation arrangements between the RBI and SEBI.

D. Crisis Management Arrangements

47. **The Financial Resolution and Deposit Insurance Bill addresses many of the limitations of the current framework**. At present, India does not have a comprehensive administrative resolution regime for banks or other financial institutions. Resolution powers and tools for banks are limited and nonbanks can be liquidated under the Company Law. The proposed Bill establishes a single Resolution Corporation and a comprehensive resolution regime for banks (and holding companies), insurance companies, FMIs, pension funds, and other financial market intermediaries. It formalizes a series of resolution tools, including purchase and assumption transactions, bridge bank, and bail-in, and establishes recovery and resolution planning. It also shifts the deposit insurance functions from the DICGC into the Resolution Corporation.

48. **Further improvements are necessary to ensure the effective implementation of the new resolution regime and its alignment with international standards.** The Bill proposes that the Resolution Corporation is allowed to override supervisory decisions on the risk assessment of an institution at material risk of failure. This risks undermining RBI's authority at a point when corrective actions are being implemented. The Bills remains unclear on whether bail-in is limited to contractual write-down of securities with explicit conversion clauses as opposed to broader statutory powers. The preferential treatment of creditors of domestic branch of a foreign financial institution over other creditor should be eliminated. Further, recovery and resolution plans should be proportionate and the principles for selecting the mix of resolution methods, such as least cost test should be introduced. The deposit insurance framework needs to be strengthened. Lastly, other elements of the safety net should be reinforced, including crisis preparedness and emergency liquidity assistance (ELA). The policy-coordinating role of the FSDC could be expanded to include systemic crisis preparedness, such as the preparation of contingency planning and crisis response procedures.

E. Market Integrity

49. **The AML/CFT framework was recently strengthened, but money laundering (ML) risks related to corruption, domestic tax evasion, and the gold market need further mitigation**. Measures to address the shadow economy—including the recent currency exchange and the Goods and Services Tax—have the potential to increase transparency and contain ML and terrorist financing (TF) risks. AML/CFT measures imposed on financial institutions were strengthened, except with respect to domestic politically exposed persons, a notable deficiency given the level of perceived corruption. Other critical shortcomings remain to be addressed: domestic tax evasion is not a predicate offense to ML; the risk model used for supervision of banks does not give ML/TF risks adequate consideration; the identification by banks of beneficial ownership of assets is undermined by insufficiently adequate understanding; and India's gold market is vulnerable to ML/TF, although the authorities are planning to introduce preventive and regulatory regimes.

IV. Priorities for Market Development

50. **India's medium term developmental challenges range from enlarging economic possibilities for growth to equalizing growth opportunities**. India record of growth and poverty reduction has been strong, with poverty more than halving since the 1990s. However, employment levels have stagnated, few "good" jobs have been created and a majority of the population still works in small low-productivity firms in low-productivity sectors. The relative scarcity of land and water is compounded by their inefficient use. Cities offer agglomeration economies, but are performing below potential. Agriculture is the main user of land and water, but is a low productivity sector. Wealth inequality is on the rise.

51. **A deep, competitive, inclusive, and diversified financial sector is key to meeting these developmental challenges.** To expand the country's economic growth potential, the financial sector needs to allocate resources to the most productive firms. A banking sector saddled with NPAs cannot provide intermediation to this end. The efficient use of natural resources will require large long-term investments in infrastructure, for which a bigger and more diversified financial system is essential. Expanding capital markets and ensuring their liquidity is key in this respect. Lastly, equalization of opportunities requires individuals and businesses to have access to affordable financial products and services, beyond transaction accounts. To this end, recent gains in expanding account penetration should translate into widespread usage for which digitalization will be key and the PSL program should be assessed and redesigned to ensure that financial products and services reach the underserved in the most efficient way. The extensive role of the state in the financial sector (see Box 2) needs to be rationalized, optimized and made more efficient, and the capital provided by the public sector put to more productive use, to unlock the productivity potential of the economy at large.

A. State Ownership and Competition in Banking

52. **Banking sector inefficiencies are reflected in a relatively high interest rate spread.** Limited competition in the banking sector (Box 5), coupled with costs imposed by SLR and PSL and managerial inefficiencies in PSBs, could explain why India has one of the highest spreads among a group of comparator countries. All other comparators (China, Mexico and South Africa) have lending to deposit spreads that are less than half those of India.

53. **The sheer size of PSBs affects negatively the overall level of intermediation**. The recent credit deceleration is a case in point. PSBs dominate the sector in terms of asset size and scope of the branch network. PSBs' capital erosion is already significantly limiting their lending capacity, holding back overall lending growth. In 2016 bank credit growth reportedly was the lowest in decades. A prompt resolution of the NPA problem for PSBs is essential to support credit growth.

54. **The large government ownership in the banking sector needs to be rethought.** Given the very large size of PSBs, the rationale for continued deployment of such large and increasing amount of public capital needs to be reassessed. Exercising shareholder oversight responsibility for such a large portfolio of banks is a significant administrative burden for the government. Further, the objectives laid down in the Nationalization Law (to control the heights of the economy and to meet progressively and serve better, the needs of development of the economy in conformity with national policy) were spelt out almost 50 years ago when the domestic and global financial systems and the Indian economy looked very different. The depth of the system, development of new capital market instruments and technological advances have changed substantially the financial sector. For example, in the late 1960s the PSBs branch network, was the only infrastructure to deliver services. Today and going forward, branch networks have and will continue to decrease in importance, owing to increased digitalization and alternative payment mechanisms. In the same vein, long-term financing for development can today be raised through capital markets.

55. **Going forward, the authorities should revisit the role of state ownership in the banking sector, and should pursue a strategy for PSB restructuring and privatization.** A policy banking/sector ownership strategy should seek to identify the parts of the financial sector, direct ownership in which the government sees as critical. A blueprint for restructuring and privatization should be developed to guide the eventual divestment of state-owned entities. A significant share of the state-owned banking sector (by assets) should be privatized to enhance efficiency of intermediation. The strategy should be founded on two pillars. First, any further capital injection by the government should be made conditional upon resolution of the weaker PSBs, the good assets and liabilities of which

should be merged with stronger PSBs. Second, the plan should spell out a divestment/privatization road map with a clear timeline. The plan should be drafted shortly and be implemented over the medium term.

B. Long-term Finance

Housing finance

56. **The residential mortgage market has grown rapidly**. The market is still dominated by banks, but housing finance companies (HFCs) are catching up. By March 2017, the mortgage portfolio was equivalent to 11.9 percent of GDP, compared with 6.7 percent at end-March 2012. Affordable housing is the fastest growing segment and benefits from a government program of interest buy-down subsidies for borrowing end-buyers, and tax benefits to builders of affordable homes. Residential mortgages have mostly adjustable rate loans with an average duration of 8 years, as prepayments are high.[6] While banks are still the largest providers of mortgage lending, HFCs have been growing due to expansion in the affordable housing segment. There are currently 70 active HFCs, about 30 more than 5 years ago, with a market share of 42 percent. The 4 leading HFCs account for 79 percent of the overall HFC segment.

57. **NPAs in the segment are low, but considering its fast growth, time is ripe to strengthen oversight, which should be brought to RBI**. The quality of the mortgage portfolio remains very good (NPA at 0.55 percent for HFCs and 1.2 percent for banks). However, the strong credit growth in sector; increasing competition faced by HFCs from banks; and the expansion of HFCs' real estate development portfolio points to the need for stronger supervision. Placing HFCs under RBI supervision will ensure stronger oversight, a more comprehensive supervision of housing market risks and a level-playing field between banks and HFCs.

58. **To ensure appropriate risk management and a level-playing field two regulatory amendments are necessary.** In order to stimulate mortgage lending, the RBI recently reduced risk-weighting for new residential mortgage loans to 35 percent and general provisions to 25 bps (from 40 bps). These measures should be extended to existing residential mortgage loans, contingent on sound capitalization in the sector. The regulation among HFCs is uneven. Entities that have been licensed recently are banned from deposit mobilization, prompting the need for harmonization of regulations across different HFCs.

59. **The funding model of smaller HFCs is unsustainable and NHB's wholesale role has become negligible.** The largest and well-rated HFCs can mobilize diversified funding from various sources, including banks (driven by PSL targets), raising term deposits, and issuing certificates of deposit or medium-term debentures (the latter, given their high ratings). In contrast, smaller HFCs have only limited access to long-term funding and cannot raise term deposits, as NHB has banned deposit mobilization for recently licensed institutions. Currently HFCs rely only marginally on NHB refinancing. At end 2016, NHB refinancing represented only 3.7 percent the mobilized funding for residential mortgage markets, and less than 4 percent of HFCs' funding alone, out of line with the NHB's intermediating function and mandate. NHB should scale up its wholesale funding activities. An ownership transfer of NHB to MOF and a revamp of the institution could spur crowding in of private funding into the housing finance market. The NHB should standardize and enhance securitization of mortgage pools.

60. **A greater mobilization of the long-term bond market is needed beyond PSL securitization.** Such mobilization would require a re-activation of AAA-rated pass-through

[6] Lenders do not apply prepayment fees when the loan is prepaid from savings but they charge refinancing fees.

certificates, allowing access to funding from insurance and pensions funds. This requires: (i) reduction of the 10 percent minimum retention requirement for residential mortgage-backed securities (RMBS) as an asset class; (ii) external enhancement by NHB on standardized mortgage pools; and (iii) reduction of the 5–7 percent stamp duty on immovable property through a modification to the Indian Stamps Act.[7]

61. **In the long run, covered bonds could help lenders access attractive funding though higher ratings and longer funding maturity.** This instrument would be useful to midsize HFCs, which face more constraints in accessing long-term funding than the largest lenders that already access AA-rated bond markets. In the future, covered bonds and RMBS could play a much larger role if fixed-rate mortgage markets are revived (by adjusting the program of subsidized rates for affordable housing). Limits on banks' issuance of covered bonds would be needed.

Infrastructure Finance

62. **Past government plans to facilitate infrastructure investments have fallen short of target and the banking sector is burdened with infrastructure-related NPAs**. Between 2012 and 2017, the authorities had expected to facilitate infrastructure projects for 10 percent of GDP, with a half of the funds expected to be originated by the private sector. The authorities were relying on banks as well as on the India Infrastructure Finance Company (IIFCL), an apex institution for infrastructure finance established in 2006. However, only 70 percent of the original investment target was met, with shortfalls of 20 percent and 43 percent from public and private investments. Furthermore, most non-budget finance was sourced from banks, specialized NBFC (e.g., IIFCL), and insurance companies, rather than from capital markets. Banks' infrastructure finance portfolio has performed poorly, with the stressed assets ratio of such loans reaching 19 percent as of end March 2017. Poor performance can be attributed to multiple factors; including poor quality of public-private partnership pipeline; delayed authorizations; problems with land acquisition for the projects, altered tariffs; debt with a shorter maturity than the project amortization period; over-leveraged promoters; high termination risks, and disputes between promoters and government. That said, authorities are well aware of the problem and are taking collective steps to resolve NPLs, by addressing weaknesses in the investment pipeline including through tackling co-ordination challenges, institutional capacity, rebuilding trust in PPP models, and, crucially, introducing new financing mechanisms with differentiated risk-bearing characteristics.

63. **Infrastructure Debt Funds (IDFs) were also established to complement bank finance for infrastructure, their tax and regulatory framework should be watched closely**. IDFs are either NBFCs or Trusts/Mutual Funds; 6 IDFs are now in operation but have leveraged modest debt amounts (US$1.94 billion) relative to financing needs. More recently, the authorities have developed a complete regulatory framework for infrastructure investment trusts (InvITs). These are pooled Trust Equity Investment Vehicles to securitize cash flows from operating infrastructure projects, therefore permitting to free up long-term investment capital and attract long term institutional investors, along with a favorable tax treatment. While it is too early to assess the development effectiveness of InvITs, early signs are positive. Yet the tax and regulatory arrangements need to be closely monitored. Lastly the authorities have permitted the issuance of Municipal Bonds by selected Urban Local Bodies to finance local infrastructure. State and municipal infrastructure expansion, stimulated by e.g., the Smart Cities initiative which alone anticipates over Rs. 1.3 trillion (over US$20 billion) of project investments, will be an important driver of the overall infrastructure finance developments.

[7] Exempting RMBS transactions from stamp duty, as this was done for factoring and securitization of NPLs.

64. **As the authorities intensify their efforts to stimulate infrastructure finance, they would benefit from a comprehensive "capacity" diagnostic**. Such diagnostic would cover both upstream and downstream phases of the overall infrastructure finance system and would help identify financing gaps, reform requirements, or risk mitigation needs specific to sectors. It would determine what it would take to leverage commercial finance, identify cross-sector challenges and specific sector reforms, and adjust funding and risk-sharing instruments to produce optimal leverage of scarce public resources. The diagnostic is timely as authorities are about to provide significant fiscal support to the newly established National Investment and Infrastructure Fund (NIIF), a strategic equity fund, and a proposed Credit Enhancement Fund.

65. **NIIF, a fund of funds, was created in 2015 to address the infrastructure needs, but is not yet fully established.** It will invest in greenfield and brownfield infrastructure, through equity or quasi-equity, and is initially targeting sectors like green infrastructure and port logistics. The NIIF has not yet completed its equity roundtable—expected at US$6 billion, 49 percent of which is to be provided by the government—and hopes to start investing in late 2017. A swift operationalization of NIIF is essential for the credibility of the authorities' efforts in infrastructure finance.

66. **The prudential requirements for the soon to be created Enhancement Fund should be carefully designed**. Such Fund is also to get capitalized by strategic public institutions, such as IIFCL and LIC, to facilitate the access to corporate bond market to finance infrastructure project. It should be sufficiently capitalized to leverage bond market investors. Its operational model must be carefully designed to enhance the right sectors, sponsors, and projects as well as encourage other structuring solutions for risk sharing. In addition, the RBI regulations on credit enhancement need to be adjusted on credit provisioning, capital adequacy and debt leveraging. Partial credit guarantee activities require less of ex-ante prudential capital and general provision, but guarantee fees should be actuarially priced.

67. **Domestic institutional investors have a commanding presence in financial markets but their participation in infrastructure finance should be further fostered**. India's infrastructure lending has remained concentrated with 50 percent of debt with banks, mostly PSBs; specialized non-bank lending institutions made further 35%. Global experience suggests that the non-banking sector plays a central role in the sustainable development of infrastructure finance markets not least because they help diversify banks' exposure in bulky, long term assets. India's infrastructure lending is concentrated with 50 percent of debt with banks, mostly publicly owned. Although the domestic institutional investor base accounts for about 70 percent of GDP and has been growing through mutual funds (16 percent of GDP), state provident fund (21 percent of GDP), insurers (25 percent of GDP), and pension funds (still small but expanding rapidly), it has not, however, participated much in infrastructure finance. In fact, corporate bond market growth (stock of corporate bonds was equivalent to 20 percent of GDP) has only benefited the top-rated corporates (AA or higher rated), and has been limited to maturities between 2 and 10 years. This reflects conservative regulatory requirements for provident funds and insurance companies, suggesting potential for gradual easing of investment criteria with deepening market liquidity and increasing rating stability. A review of the existing prudential framework for institutional investors should be undertaken to allow for more balanced risk-return investments, like in pooled structures, so that institutional investors could take on somewhat higher risks than currently allowed, for example permitting investments into A-rated asset class. This could be achieved by leveraging the inter-regulatory coordination mechanism for a harmonized approach to asset classes by regulators.

C. Corporate Bonds

68. **Several measures have been taken to quicken the pace of bond market development.** Many of the proposals drafted by the H R Khan Committee have been adopted as reforms, including

introduction of trading on electronic trading platforms in primary markets; creation of an information repository; adoption of standards for the methodologies used by rating agencies; recognition of brokers as market makers; and sanctioning of investment by foreign portfolio investors in unlisted bonds. Banks may now also provide partial credit guarantees, and the insolvency and bankruptcy framework should enhance the position of corporate bond investors. A new RBI regulation which was adopted in 2016 is inducing large corporates to use corporate bonds over incremental bank lending, above a certain limit of bank loans. SEBI has recently issued specifications on International Securities Identification Number rationalization for debt securities.

69. **Allowing corporate bonds in the collateralized borrowing obligations (CBLO) structure could have a positive impact on liquidity in these securities in the near-term.** Expanding the RBI collateral framework for monetary operations to corporate bonds may help to improve liquidity, but this is likely to be a medium-term goal as banks already have substantial holdings of government securities. Instead, expanding the CBLO market repo structure beyond government securities to corporate bonds could bring near-term benefits to liquidity in the corporate bond market.

D. RBI Liquidity Management & Market Development

70. **Adjustments to the RBI's operational framework could help RBI liquidity management and market development**. To facilitate banks' management of short-term liquidity shocks, the RBI should move toward full reserve averaging and calibrate its liquidity providing operations based on forecasted liquidity needs (which will also require improved government cashflow forecasts), as opposed to net liability metrics as a measure of liquidity demand. Other areas of improvement include; (i) permitting remuneration of rupee reserves; (ii) removing ceilings around the used of use of government instruments for sterilization; (iii) establishing a clear investment framework for government deposits, distinct from monetary policy auctions of liquidity; (iv) ceasing liquidity lines to the government and states; and (v) excluding nonbank primary dealers' access to RBI standard facilities, which would be assisted by the establishment of an independent debt management office.

71. **The RBI should continue phasing out the Statutory Liquidity Requirements (SLR) requirement, with a view to discontinuing it eventually**. Government bond market liquidity appears to have improved recently, helped by a progressive reduction in the SLR requirement and the held-to-maturity classification, though a further calendar of reductions should be announced. A carve-out within the SLR is available for liquidity coverage ratio (LCR) purposes through the RBI's Facility to Avail Liquidity for Liquidity Coverage Ratio (FALLCR), and the RBI should review its structure, so that it encourages monetization of high-quality liquid assets in the market in the first instance, with any privileged RBI support structured on considering term premia and the cost of liquefying those assets in the market.

E. Fostering Financial Inclusion and Digitalization

72. **The National Financial Inclusion Program -- Pradhan Mantri Jan Dhan Yojana (PMJDY) -- has fostered a sizeable increase in the number of individual accounts in India**. The PMJDY has yielded impressive results, with about 280 million accounts created since August 2014. Importantly, the PMJDY success is backed by the introduction of unique biometric identification of each citizen (*Aadhaar*), a prerequisite for opening bank accounts and now used as the primary 'know your customer' tool. The PMJDY accounts are also used for channeling public subsidies and direct cash payments for social programs directly into the accounts, reducing leakages. Further, to expand the limited access network, two new categories of financial institutions (Payment and Small Finance Banks) were created.

73. **However, modest penetration of electronic payments, digital account access, and overall access network have led to limited account usage and product diversification**. This also explains the relatively low level of per-capita cashless transactions (see Figure 3). Although the November 2016 currency exchange initiative has helped increase electronic transactions, recent data show they have gone down to what appears to be their longer-term trend. Product diversification remains limited, with only 44 percent of Indian adults saving through a bank and only 13 percent borrowing through formal channels. Diversification could be enhanced by financial literacy measures, use of alternative data, continued digitization of recurring payment streams, and the recently launched certified credit counsellors scheme.

74. **Some key policy measures could further increase digital payments and spur transaction volumes in individual accounts.** While some issues with the Business Correspondent (BC) model are being addressed, the business model and the complex commission structure are still an impediment.[8] Similarly, when designing and promoting digitization initiatives, it is important to promote both incumbent payment instruments, such as payment cards (which is the most used payment instrument currently) and new innovative mechanisms, such as *Aadhaar*-enabled payments. Measures to incentivize the adoption of digital payments should also be sustained, like giving tax rebates to either payer or payee or both. Finally, a National Payments Council should be established to facilitate public and private sector dialogue and coordinate on digital payments, and inform policy formulation by the government and the RBI.

75. **Recent reforms in the financial infrastructure have assisted in reducing the finance gap of Small and medium-sized enterprises (SMEs).** In 2014 only a few SMEs had access to credit. Thanks to reforms implemented, access to credit is no longer perceived as major constraint, in contrast to peer markets like Russia or South Africa where it is among most problematic factors impacting competitiveness.[9] In terms of easiness of getting credit, India is positioned 44 out 189 economies; while South Africa and China rank 62.[10] Reform of the credit bureaus regime and the creation of a moveable collateral registry are also contributing to increased access for SMEs.

76. **An impact analysis of the results of PSL, as well as credit gap analysis, should be conducted.** The impact of directed lending for underserved segments is difficult to assess, in absence of specific objectives and an evaluation. The PSL scheme is meant to promote credit allocation to underserved segments, although it does not include regional allocation criteria. An analysis of PSL at the state level seems to indicate that lower-income states and rural areas remain largely underserved by the PSL. The upcoming financial inclusion strategy presents a unique opportunity to conduct impact and gap analyses of the PSL program, differentiating among different sectors and geographical areas. While the scope of the PSL program for commercial banks should be reduced, new incentive-based programs should be designed to substitute directed lending. Specific mandated lending could be retained for specialized institutions—regional rural banks (RRBs), small finance banks, NBFC Micro Finance Institutions (MFIs), and cooperative banks—and development financial institutions.

77. **The upcoming financial inclusion strategy presents a unique opportunity to draft a comprehensive strategy and to create a strong institutional set up to support its implementation**.

---

[8] A study shows that 80 percent of the surveyed agents are doing less than 10 transactions a day. Only 0.2 percent of the Customer Service Points (CSPs) have a monthly earning of more than Rs. 6,000 and there is no uniformity in commission pay-out with a variety commission structures exists, which range from fixed commission per transaction to percentage basis. Tiwari et al, The Curious Case of Missing Agents in Rural India—The Reality Behind the "221,341 Customer Service Points in India", MicroSave India Focus Note 105, 2014.
[9] 2016/17 World Economic Forum Global Competitiveness Index.
[10] Doing Business 2017.

The strategy should focus on all underserved segments and build on the expansion of account access achieved to date. The strategy should be preceded by an inventory and assessment of all the existing government-funded and directed programs and institutions created to promote inclusion. This is essential to ensure that fiscal resources are spent efficiently and in a prioritized manner, and programs achieve desired outcomes. Lastly, the implementation of the strategy requires the attention of many public and private sector stakeholders, including several ministries and the regulators. The re-constituted Financial Inclusion Advisory Council (FIAC) and the financial inclusion and literacy group under the FSDC provide a mechanism for this.

Box 1: Policy Initiatives to Address Problems in the Banking System

The authorities took several important measures to address problems in the banking system:

More accurate recognition of risks. The RBI strengthened its asset classification and provisioning rules in 2015. It also performed an AQR in 2016, which covered the major 36 banks (including all PSBs) and 93 percent of total gross loans. A significant part of the large corporate borrower accounts was examined, and information from the Central Repository of Information on Large Credits (CRILC) was used to ensure consistency in classifying exposures of the same borrower across banks.

Corporate debt restructuring schemes. The RBI introduced in 2015 and 2016 three new schemes to facilitate loan restructuring—the 5:25 scheme to reschedule long-term financing for large projects; the strategic debt restructuring (SDR) scheme, to facilitate a debt/equity swap with a change of management; and the Scheme for Sustainable Structuring of Stressed Assets (S4A), to divide debt into sustainable and unsustainable portions. These schemes have had a limited take-up by lenders for several reasons: first, they provide rigid solutions that do not allow customization to the needs of specific cases; second, lenders have uneven capacity to withstand losses, making it hard to strike agreement on debt restructuring solutions; third, there are perceived risks of personal criminal liability of PSB staff with respect to asset disposal. Some concerns were supposed to be addressed by the establishment of the Oversight Committee with a mandate to monitor compliance with regulations and procedures.

Insolvency and creditor rights. The 2016 Insolvency and Bankruptcy Code introduces a modern framework regulating the insolvency of companies, partnerships and individuals. For companies, there is a corporate resolution procedure that aims at the approval of a restructuring agreement within 180–270 days. In the absence of agreement, the company is subject to liquidation. The RBI Oversight Committee was granted additional powers to push the largest NPA cases into insolvency. The 2016 Enforcement of Security Interests and Recovery of Debts Act has strengthened the rights of secured creditors for out-of-court enforcement (SARFAESI) and, generally, the rights of financial creditors at the debt recovery courts. The reforms provide for a liberalization of foreign investment in asset reconstruction companies, and the minimum capital and cash component requirements of asset reconstruction companies were strengthened to encourage increased NPA purchases from banks.

Banking sector revitalization. The government's Indradhanush Plan, introduced in 2015, aims at revitalizing the PSBs by strengthening capital and improving their governance, autonomy, risk controls, and capacity to deal with stressed assets. Greater consolidation of the 27 PSBs is also being considered as a way to strengthen the banking system. As part of this effort, the PSBs were encouraged to increase private sector participation in bank equity, with a view to decreasing government ownership to the legal minimum of 52 percent.

Development of corporate funding alternatives. The RBI liberalized regulations on external commercial borrowings (ECBs) by corporates in 2015, including fewer end-use restrictions and higher debt ceilings, and in 2016 allowed infrastructure companies and certain NBFCs to tap external borrowing. Also, a new framework introduced in 2015 sanctions the issuance of rupee-denominated (Masala) bonds overseas.

Box 2: Taxonomy of Public Sector Intervention in the Financial Sector

The public sector plays an important role in the Indian financial sector as an owner, direct promoter of financial sector development, and beneficiary of funding.

Ownership. The government is a majority owner in PSBs, RRBs, state cooperative banks, and specialized financial institutions. The 56 RRBs are specialized banks jointly owned by the central government, the State governments, and sponsoring PSBs. The government also owns specialized development institutions, namely the Exim Bank), National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), India Post, and Micro Units Development and Refinance Agency (MUDRA). RBI wholly owns NHB. The government owns LIC, the largest insurer (and a significant institutional investor, including in PSBs), General Insurance Corporation of India (GIC) (the sole locally incorporated reinsurer), IIFCL, and a host of smaller development financial institutions for serving various other segments of the society. In the infrastructure finance area, it also set up the NIIF, a fund of funds, and is considering establishment of a credit enhancement facility.

In most regards, public and private sector financial institutions are governed by the same prudential rules, although some differences exist by virtue of special legislation or agreements. For example, PSBs governance structures are controlled by their law of incorporation or the Nationalization Act, with implications for the supervisory outreach by RBI. By arrangement, PSBs are the sole providers of banking services to government agencies, state-owned entities, and Indian State governments. In insurance, LIC enjoys by law an explicit government guarantee for all sums which it assures, while GIC benefits from arrangements in the reinsurance market whereby primary insurers are required to cede 5 percent of all premiums to the company as well as to offer GIC first preference on other business ahead of foreign reinsurers' branches.

Direct promotion of financial sector development. Through PSL RBI requires all commercial banks and Urban Cooperative Banks to lend 40 percent, and RRBs and Small Finance Banks 75 percent, of their loan portfolio to agriculture, exports, small business, housing, and economically weak sectors. Additional requirements regulate conditions of lending to individual sectors, such as agriculture, where for smaller loans interest rates are capped and banks receive half of the interest in subsidies from the government. In insurance, there are requirements, which escalate annually for new insurers, to write minimum levels of non-life insurance for the rural and social sectors. Life insurers are also required to invest 15 percent of investment assets in infrastructure and housing sector (5 percent for general insurers).

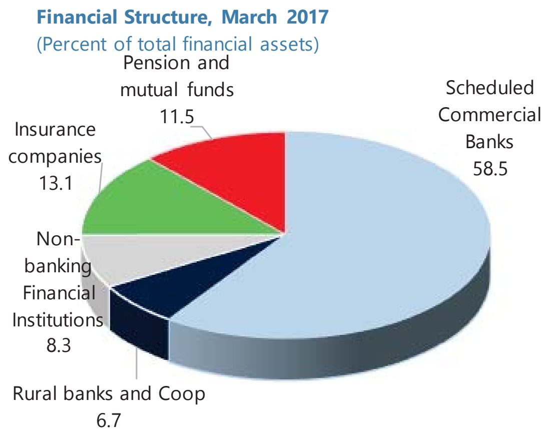
The government also runs several interest subsidy schemes, these have increased in value from 0.3 percent to 0.8 percent of government expenditures in the 2009-2016 period.

Under the National Financial Inclusion Policy, the government has launched the provision of no-frills accounts, which banks are mandated to offer upon customers' request. It also introduced other low-cost pension and insurance products (i.e. premiums in motor third-party liability are fixed at low rates to ensure affordability). RBI requires banks to adopt and implement financial inclusion plans on an annual basis.

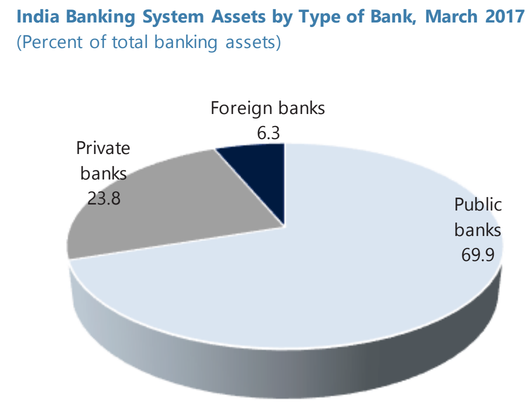
Government financing. Section 24 of the Banking Regulation Act,1949 (as amended) prescribes the SLR for commercial and co-operative banks. Under the SLR, which runs parallel to the LCR, reporting banks are required to maintain at the close of business every day, a minimum proportion of their Net Demand and Time Liabilities (NDTL) in prescribed securities recorded on a held to maturity (HTM) basis - which are predominantly in the form of Indian government securities. The SLR has been generally used for managing banking system liquidity and to provide a mechanism for banks to invest in income generating assets, making it relatively easy for the state to sell securities to banks. Both the HTM and SLR ratio have been aligned and recently reduced in line with a published schedule (currently 20 percent). The RBI also makes available to the central government and states credit advances to tide over temporary mismatches in the cash flow of their receipts and payments.

Figure 1: India: Structure of the Financial System

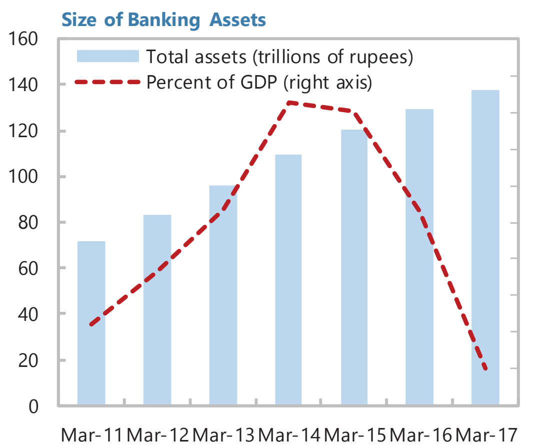
Financial system is dominated by banks...



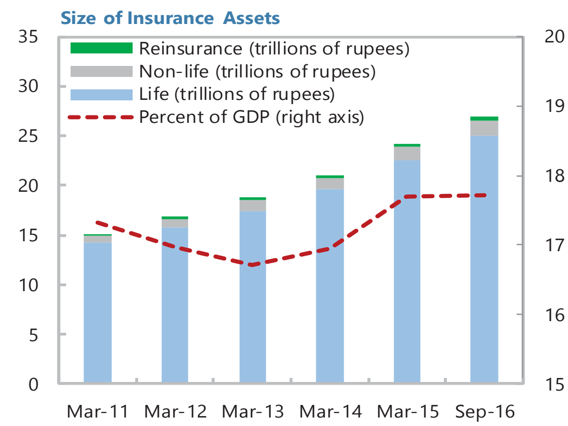
...and PSBs remain the most important players.



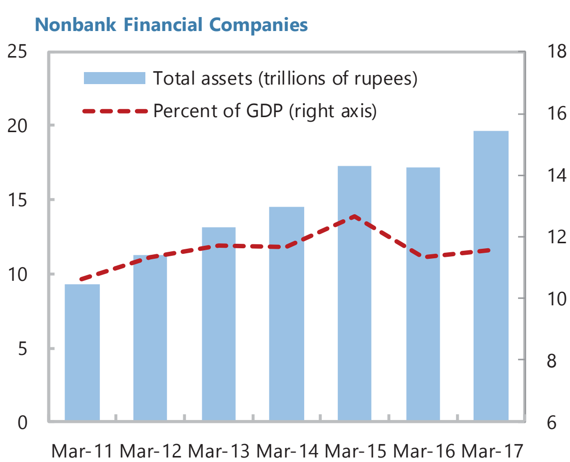
Banking assets grew in nominal terms, but growth has significantly decelerated over the past years.



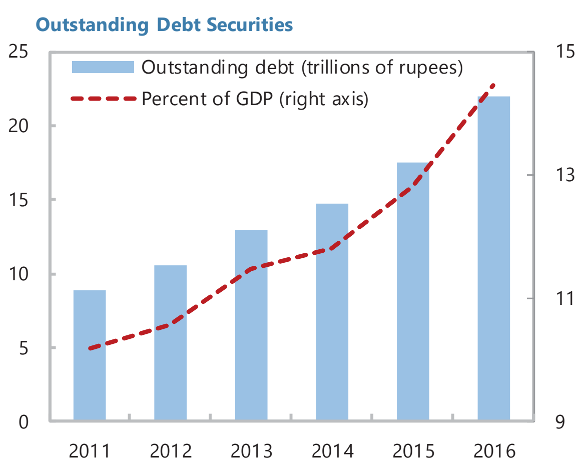
Life insurance remains the largest nonbank market.



NBFCs have doubled in absolute terms, but are small.



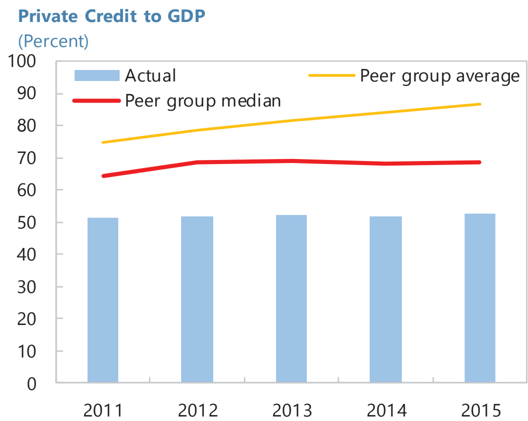
Debt markets remain shallow yet deepening briskly.



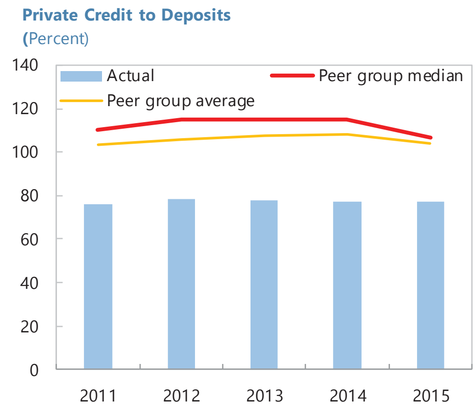
Sources: Reserve Bank of India; and; IMF World Economic Outlook (WEO).

Figure 2: India: Financial Development Benchmarks, 2011–16

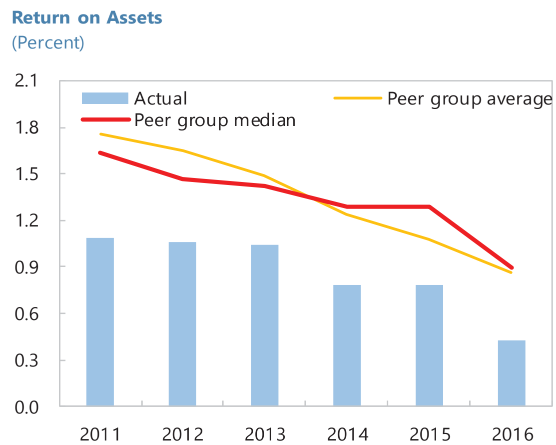
Bank intermediation is lower than in comparator countries...



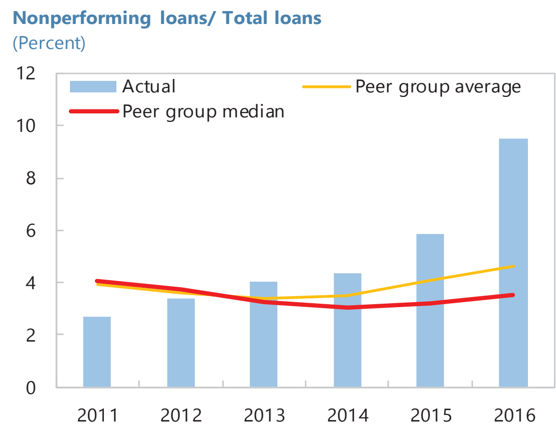
... and statutory requirements crowd out private credit.



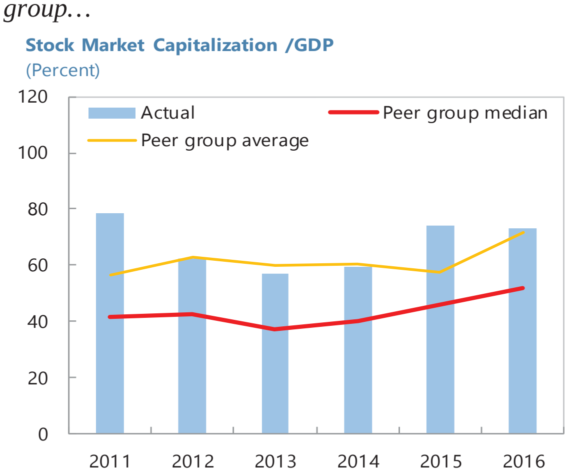
Bank efficiency indicators lag peers….



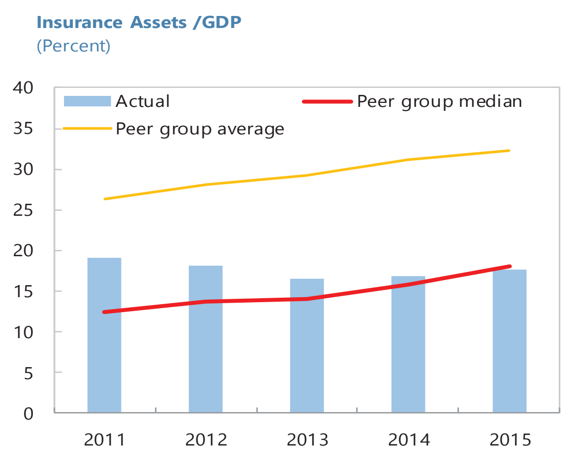
... and asset quality is weaker.



India's equity market is matching up with the peer group…



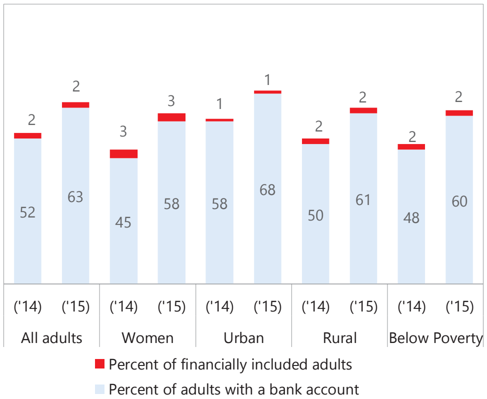
...but the insurance sector is still significantly smaller.



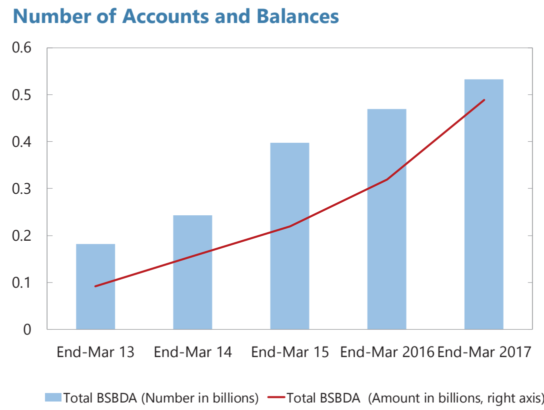
Sources: FinStats Dashboard 2017, World Bank Group; and IMF Financial Soundness Indicators.
Note. Peer group of countries consist of Brazil, Russia, China and South Africa.

Figure 3: India: Financial Inclusion and Digitization

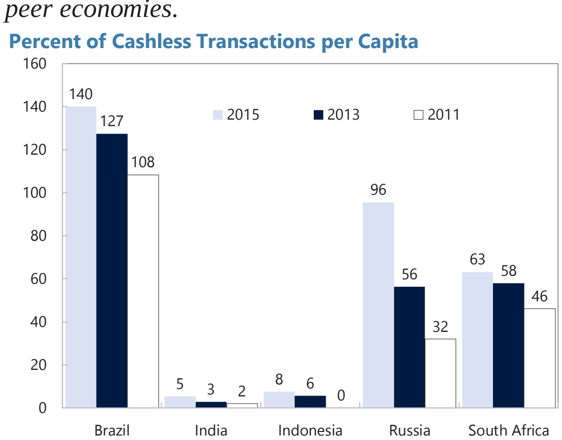
Between 2014 and 2015 financial inclusion has grown substantially across all demographics…



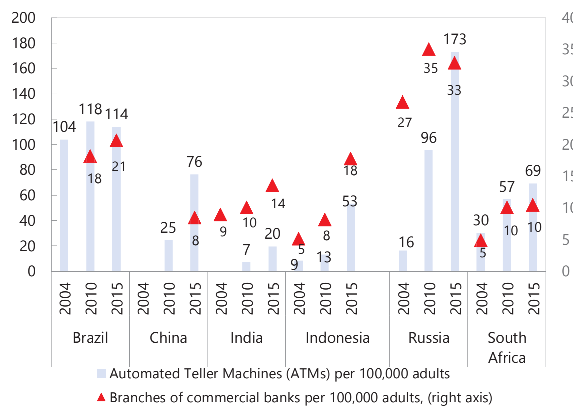
…and account numbers and balances are steadily increasing from a low base.



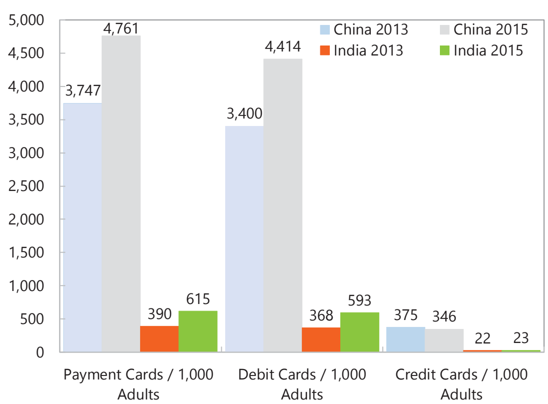
Similarly, the volume of electronic transactions has increased. However, the percent of per capita cashless transactions is still limited in comparison to peer economies.



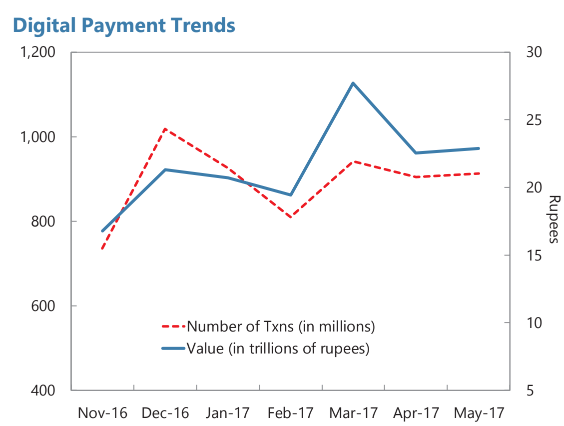
While targets of financial inclusion plansY (in terms of access points) have almost been reached…India still lags behind peer economies in terms of access points.



And the number of electronic payment instruments is still lower than in other BRICS economies…



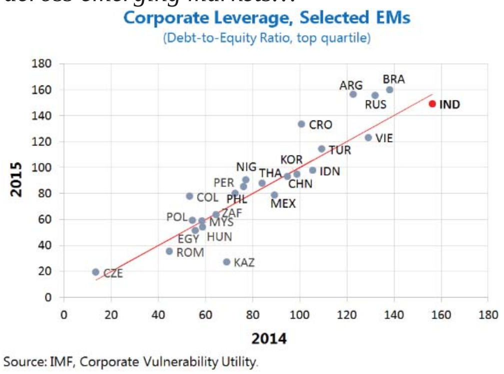
While the WLTS contributed to a rise in digital payments, recent data shows that the rise has not been sustained.



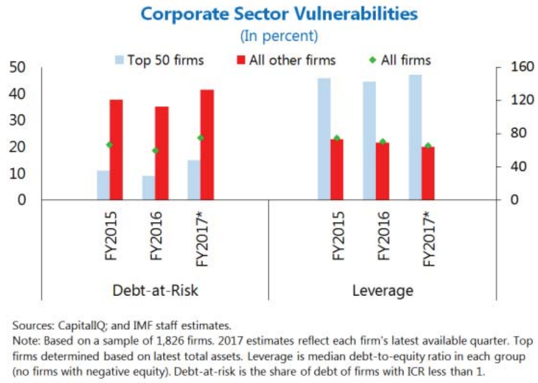
Sources: Intermedia Survey (2015); RBI; IMF Financial Access Survey; GPSS 2015; and WEF Study (2016).

Figure 4: India: Corporate and Banking Sector Vulnerabilities

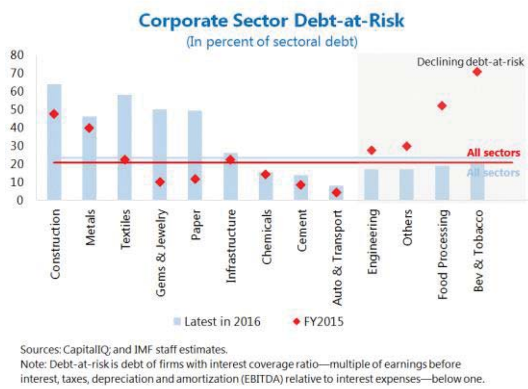
Indian corporate leverage is among the highest across emerging markets…



… with leverage particularly high across the largest corporates, and debt-at-risk levels edging up.

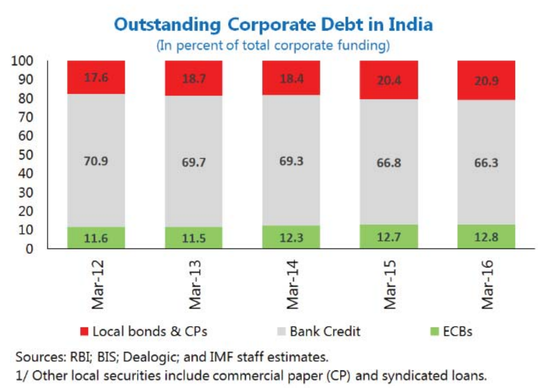


Vulnerabilities remain elevated….

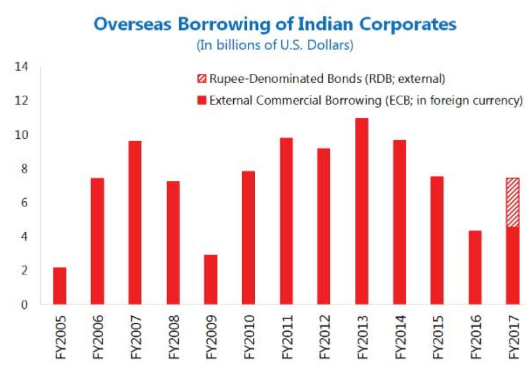


…and liquidity pressures in certain sectors, including infrastructure, metals and textiles have risen.

Corporates are exposed to external shocks through external commercial borrowings (ECBs)...



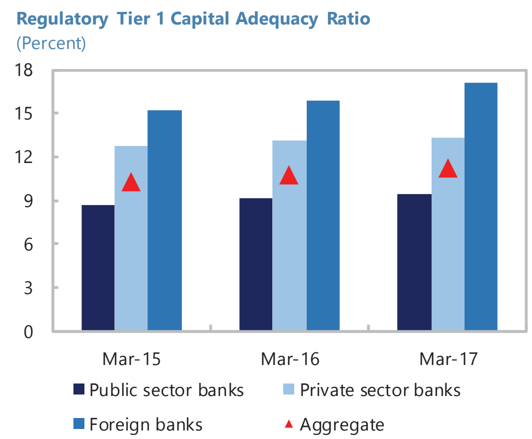
… but dependence on external foreign-currency funding has declined considerably.



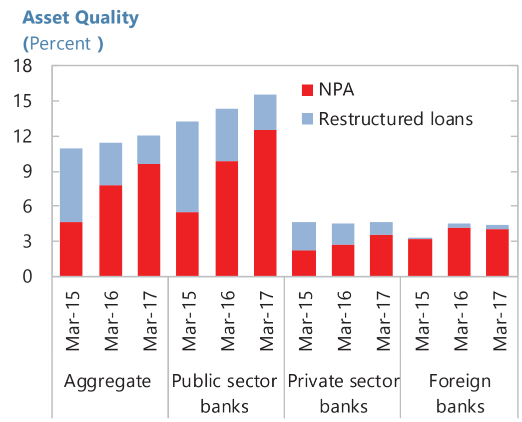
Sources: Bank for International Settlements; Banks' annual reports; Bankscope; CapitalIQ; Dealogic; Reserve Bank of India; IMF, *Financial Soundness Indicators*; IMF, *Corporate Vulnerability Utility*; and IMF staff estimates.

Figure 5: India: Banking Resilience

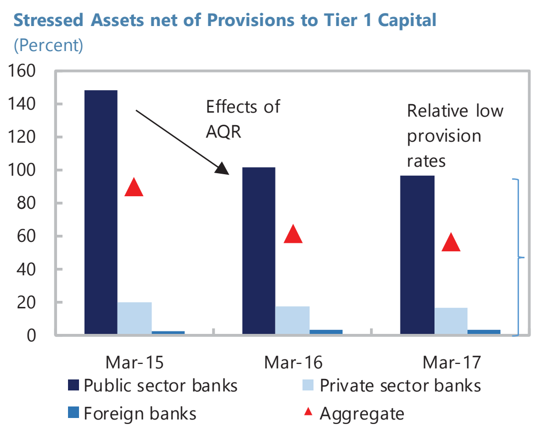
Capital adequacy remained stable overall...



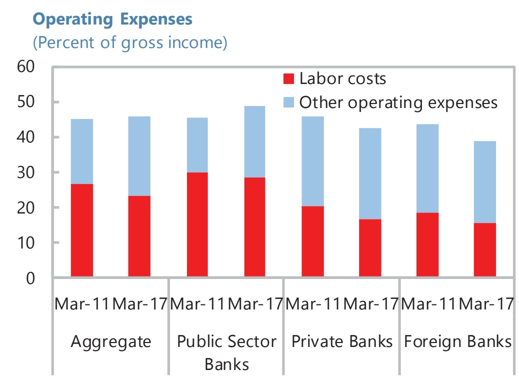
... although asset quality has significantly deteriorated.



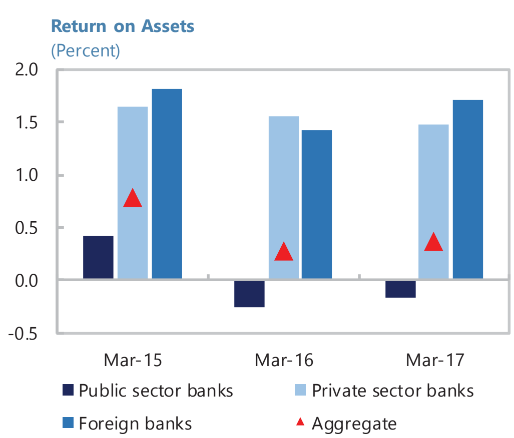
RBI's AQR forced additional recognition of losses in PSBs...



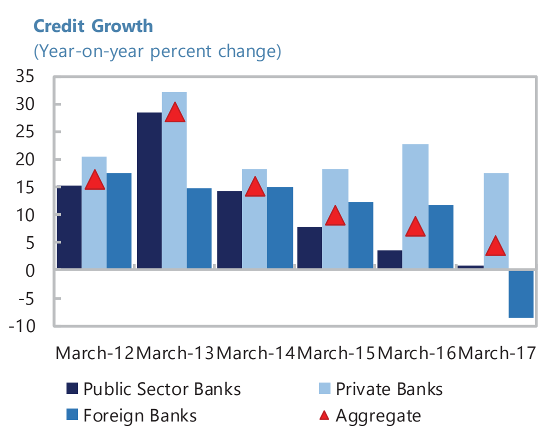
...which together with their high operating expenses…



... put pressure on profitability…



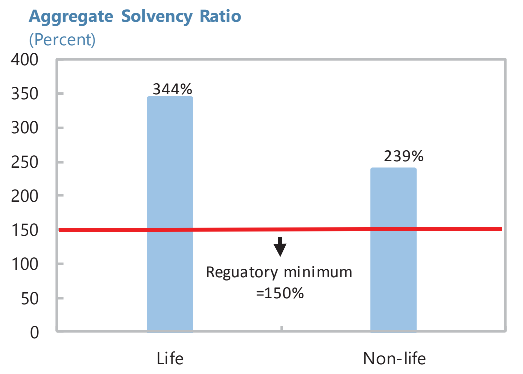
... and negatively impacted credit growth.



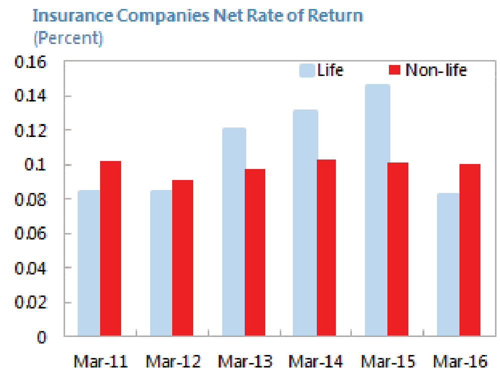
Sources: Reserve Bank of India; and IMF staff estimates.

Figure 6: India: Nonbank Financial Companies

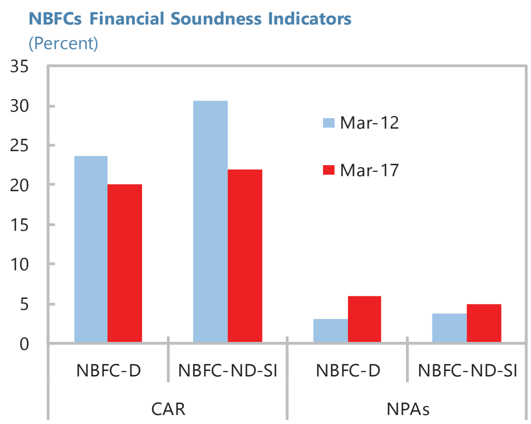
Insurance companies have high solvency ratios[1]...



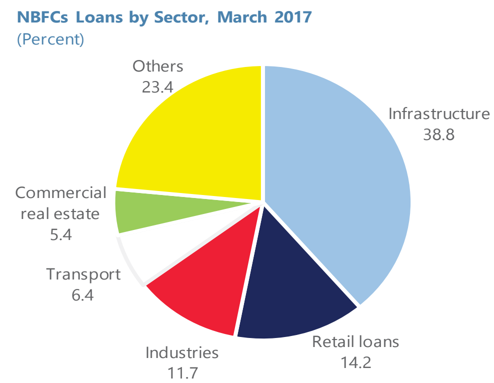
...but profitability is modest.



NBFCs have strong capital and asset quality...

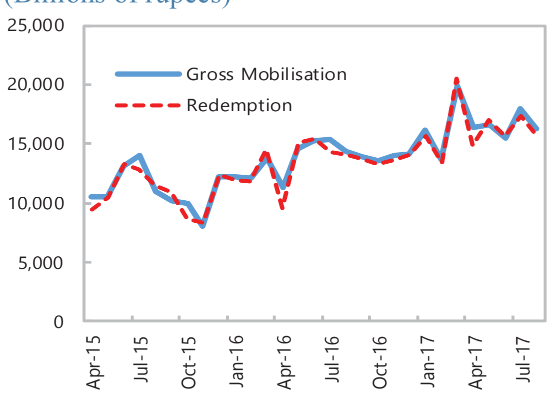


... and concentration in lending to infrastructure is high.



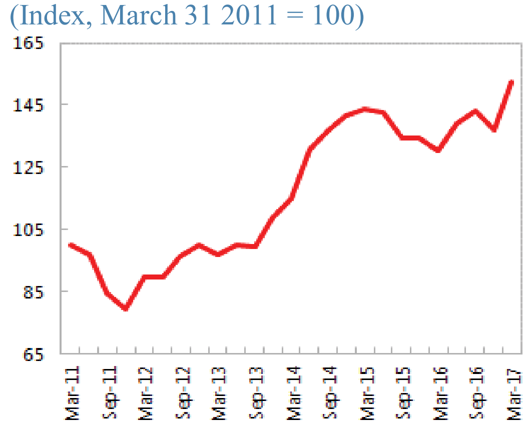
Mutual funds trends seem to indicate high exposure to the risk of a sudden and sizable redemption ...

Mutual Funds Mobilization and Redemption
(Billions of rupees)



... and equity prices are rising strongly.

Bombay Stock Exchange Index
(Index, March 31 2011 = 100)



Sources: Bloomberg; Reserve Bank of India; Insurance Regulatory and Development Authority of India and Securities Exchange Board of India.
1/ Simple average.

Table 1. India: Structure of the Financial System[1]

	Total assets-2010/11				Total assets-2016/17			
	No of institutions	In INR billion	Percent of total assets	Percent of GDP	No of institutions	In INR billion	Percent of total assets	Percent of GDP
Total	163	117,107		134.1	148	235,053		138.5
Scheduled Commercial Banks	81	71,834	61.3	82.2	92	137,469	58.5	81.0
Public Sector Banks	26	52,940	45.2	60.6	27	93,941	40.0	55.4
Private Sector Banks	21	13,982	11.9	16.0	21	35,514	15.1	20.9
Foreign Banks	34	4,912	4.2	5.6	44	8,015	3.4	4.7
Regional Rural Banks	82	2,154	1.8	2.5	56	4,105	1.7	2.4
Local Area Banks	4	11	0.0	0.0	3	7.8	0.0	0.0
Cooperative Credit Institutions	96,176	8,555	7.3	9.8	95,558	11,660	5.0	6.9
Urban Cooperative Banks	1,645	2,733	2.3	3.1	1,645	2,718	1.2	1.6
Rural Cooperative Credit Institutions	94,531	5,822	5.0	6.7	93,913	8,942	3.8	5.3
Non-banking Financial Companies	12409	6,689	5.7	7.7	11,523	19,614	8.3	11.6
Deposit-taking NBFCs	297	1,054	0.9	1.2	178	2,715	1.2	1.6
Non-Deposit taking NBFCs	12112	5,635	4.8	6.5	11,345	16,899	7.2	10.0
o/w: Nondeposit taking NBFCs systemically important	319	5,635	4.8	6.5	220	16,888	7.2	10.0
Other Financial Institutions	5	2,469	2.1	2.8	4	5,613	2.4	3.3
Standalone Primary dealers	20	103	0.1	0.1	7	311.6	0.1	0.2
Insurance Companies	49	15,126	12.9	17.3	55	30,760	13.1	18.1
Non-life Insurance	24	627	0.5	0.7	29	1,823	0.8	1.1
Life-Insurance	24	14,301	12.2	16.4	24	28,542	12.1	16.8
Reinsurance	1	198	0.2	0.2	2	394.5	0.2	0.2
Provident and Pension Fund		4,243	3.6	4.9	8	7,966	4.0	4.7
Mutual Funds	51	5,922	5.1	6.8	45	17,546	7.5	10.3

Sources: Reserve Bank of India; Insurance Regulatory and Development Authority of India, Securities and Exchange Board of India; IMF World Economic Outlook; and IMF staff calculations.

1/ Other Financial Institutions includes development banks (National Bank for Agriculture and Rural Development, Exim Bank, National Housing Bank, and Small Industries Development Bank of India).

Table 2. India: Banking Sector Financial Soundness Indicators

(Percent unless otherwise indicated)

	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
Capital Adequacy							
Regulatory capital to risk-weighted assets	14.2	14.2	13.9	13.0	12.9	13.3	13.7
Regulatory Tier I capital to risk-weighted assets	10.0	10.4	10.3	10.1	10.3	10.8	11.3
Common Equity capital to risk-weighted assets				9.9	10.0	10.5	10.5
Leverage ratio (Tier 1 to total assets)	7.0	7.3	7.5	7.1	7.6	8.0	7.9
Leverage ratio (regulatory capital to total assets)	9.9	10.0	10.1	9.2	9.5	9.9	9.5
Risk weighted assets (in INR billion)	47,249	54,621	63,966	70,649	80,344	87,466	91,159
Asset Quality							
Nonperforming loans to gross total loans	2.4	2.9	3.4	4.1	4.6	7.8	9.6
Nonperforming loans net of provisions to Tier I capital	8.4	11.0	13.7	19.1	26.8	34.3	38.9
Provisions to nonperforming loans	52.4	56.3	45.9	42.7	42.5	41.0	44.0
Large exposures to capital (TE) (in percent)					926	841	787
Related party loans to capital	0.6	0.7	0.4	0.8	0.8	0.3	0.9
Restructured loans to total loans	3.5	4.5	5.6	5.7	6.3	3.6	2.5
Earnings and Profitability							
ROAA (annualized)	1.1	1.1	1.0	0.8	0.8	0.3	0.4
ROAE (annualized)	13.6	13.4	12.9	9.5	9.3	3.2	4.4
Net interest income to gross income	22.2	19.1	18.0	17.8	12.5	12.8	13.2
Noninterest expenses to gross income	14.4	11.9	11.6	12.0	8.6	9.0	9.7
Personnel expenses to noninterest expenses	59.4	57.2	56.1	55.7	54.7	53.1	51.7
Trading and fee income to total income	7.2	5.9	5.7	5.8	3.9	3.9	4.6
Liquidity							
Liquid assets to total assets	15.2	14.0	14.8	13.5	13.6	13.1	20.5
Liquid asset to total short-term liabilities	39.2	36.9	42.4	37.8	43.4	41.6	
Liquidity coverage ratio					96.3	98.7	125.0
Customer deposits to total (noninterbank) loans	131.3	127.9	127.1	127.0	126.7	127.1	136.4
Sensitivity to market risk							
Net open positions in foreign exchange to capital	0.5	0.5	0.3	0.3	0.2	0.2	0.2
Net open positions in foreign exchange to tier I capital	0.7	0.6	0.5	0.4	0.3	0.3	0.3
Net position in equities as a percentage of tier I capital				2.0	2.3	2.4	2.6

Source: Reserve Bank of India.

APPENDIX I: IMPLEMENTATION OF 2011 FSAP RECOMMENDATIONS

Recommendations	**Priority (H/M)**	**Time frame**	**Status**
Addressing system-wide risks			
Enhance RBI monitoring of corporate indebtedness, refinancing risk, and foreign exchange exposures.	H	S	I
Improve the performance and financial strength of public financial institutions and subject them to full supervision and regulation.	H	M	PI
Financial sector oversight			
Strengthen oversight of overseas operations of Indian banks through MOUs with host countries for information sharing, supplemented by onsite inspection programs and supervisory colleges.	H	M	I
Enhance formal statutory basis for the autonomy of regulators in carrying out their regulatory and supervisory functions.	M	M	I
Tighten the definition of large and related-party concentration (short-term) and gradually reduce exposures limits to make them more consistent with international practices.	H	M	PI
Enhance specialized expertise available to the supervision function by developing programs to accredit and retain skilled supervisors.	H	M	I
Continue to strengthen coordination and information-sharing mechanisms among domestic supervisors through MOUs and formal frameworks to avoid regulatory gaps, identify emerging risks, and facilitate crisis response.	H	S	I
Provide a lead supervisor with legal backing for conducting consolidated supervision including through authority to inspect subsidiaries and affiliates.	H	S	I
Expedite passage of Insurance Law (Amendment) Bill.	H	S	I
Implement a corrective action ladder for insurers, based on solvency ratios.	H	S	I
Enact legislation to formalize the New Pension Scheme and the Pension Fund Regulatory and Development Authority.	H	S	I
Systemic liquidity, crisis management, and safety nets			
Announce a timetable for the gradual reduction in the SLR and to review the use of the held-to-maturity category, taking account of emerging global prudential liquidity requirements.	M	M	PI
Strengthen resolution tools by granting stronger powers to supervisors to resolve nonviable entities in an orderly fashion.	H	M	NI
Develop and periodically test arrangements to deal with a major disruption to the financial system.	H	M	NI

* Priority: H = High, M = medium; Time frame: S = short term, M = medium term; Status: I = implemented, PI = partially implemented, NI = not implemented, TBD = to be determined.