

India: Financial System Stability Assessment Update

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Financial System Stability Assessment Update

Prepared by the Monetary and Capital Markets and Asia and Pacific Departments

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This report summarizes the findings of the Financial Sector Assessment Program (FSAP) for India. The assessment was undertaken in June and October 2011. The findings were further discussed with the authorities during the Article IV consultation mission in January 2012.

The key macro-relevant findings of the Financial System Stability Assessment (FSSA) are as follows:

- India has made remarkable progress toward developing a stable financial system but confronts a build-up of financial sector vulnerabilities. The system is becoming more complex, with interlinkages across institutions and borders. The main near-term risks to the financial system are a worsening of bank asset quality and renewed pressures on systemic liquidity. However, stress tests did not reveal near-term stability concerns, suggesting the banking system would be resilient to a range of adverse shocks.
- The prominent role of the state in the financial sector contributes to a build-up of fiscal contingent liabilities and creates a risk of capital misallocation that may constrain economic growth. Gradually reducing mandatory holdings of government securities by financial institutions, and allowing greater access to private (domestic and foreign) sources of capital, would provide more room for the financial sector to intermediate funds toward productive economic activities, thereby improving prospects for sustained growth.
- The regulatory and supervisory regime for banks, insurance, and securities markets is well developed and largely in compliance with international standards. Areas for improvement include greater *de jure* independence of regulatory agencies; consolidated supervision of financial conglomerates; reductions in the large exposures and related-party lending limits in banks; stronger valuation and solvency requirements in insurance; and the monitoring of corporations' compliance with reporting, auditing, and accounting requirements for issuers.
- Further steps are needed to promote deeper fixed income markets, including a prudent reduction in banks' minimum statutory holdings of government bonds in line with evolving international liquidity requirements, which would support liquidity in secondary markets and the development of a yield curve; and upgrading the corporate insolvency framework. Use of capital markets to refinance infrastructure loans would help alleviate pressures on banks.

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FSAP assessments are designed to assess the stability of the financial system as a whole and not that of individual institutions. They have been developed to help countries identify and remedy weaknesses in their financial sector structure, thereby enhancing their resilience to macroeconomic shocks and cross-border contagion. FSAP assessments do not cover risks that are specific to individual institutions such as asset quality, operational or legal risks, or fraud.

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GLOSSARY

AML/CFT	Anti-Money Laundering and Combating the Financing of Terrorism
BCP	Basel Core Principles
BSE	Bombay Stock Exchange
CASA	Current Account and Saving Account
CCIL	Clearing Corporation of India
CCP	Central Counterparty
CDSL	Central Securities Depository
CP	Core Principle
CPSS	Committee on Payment and Settlement Systems
CRAR	Capital to Risk Weighted Assets Ratio
CRR	Cash Reserve Ratio
CD	Certificate of Deposit
CIS	Collective investment scheme
CSD	Central Securities Depository
DICGC	Deposit Insurance and Credit Guarantee Corporation
DRT	Debt Recovery Tribunal
DvP	Delivery versus Payment
EPFO	Employees Provident Fund Organization
FATF	Financial Action Task Force
FII	Foreign Institutional Investor
FMC	Forward Market Commission
FSAP	Financial Sector Assessment Program
FSDC	Financial Stability and Development Council
FX	Foreign Exchange
GDP	Gross Domestic Product
HTM	Hold to Maturity
IAIS	International Association of Insurance Supervisors
IBA	Indian Banks' Association
ICAI	Institute of Chartered Accountants of India
ICCL	Indian Clearing Corporation Ltd
ICP	Insurance Core Principles
IDF	Infrastructure Debt Fund
IFRS	International Financial Reporting Standards
IIFCL	Indian Infrastructure Finance Company
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IRDA	Insurance Regulatory and Development Authority
ISO	International Organization for Standardization
IT	Information technology
LIC	Life Insurance Corporation of India
LTV	Loan to Value

MCA	Ministry of Corporate Affairs
MCX	Multi Commodity Exchange
MCX-SX	MCX-Stock Exchange
MCX-SX CCL	MCX-SX Clearing Corporation Limited
MMOU	Multilateral Memorandum of Understanding
MoF	Ministry of Finance
MOU	Memorandum of Understanding
NABARD	National Bank for Agriculture and Rural Development
NBFC	Non-Banking Financial Company
NHB	National Housing Bank
NFRA	National Financial Reporting Authority
NPA	Nonperforming Asset
NPS	New Pension Scheme
NSCCL	National Securities Clearing Corporation
NSDL	National Securities Depository
NSE	National Stock Exchange
OIS	Overnight Index Swaps
OTC	Over the Counter
PDO	Public Debt Office
PFRDA	Pension Fund Regulatory and Development Authority
RBI	Reserve Bank of India
RCCP	Recommendations for Central Counterparties
RSE	Regional Stock Exchange
RSSS	Recommendations for Securities Settlement Systems
RTGS	Real-Time Gross Settlement
SARFAESI	Securitization and Reconstruction of Financial Assets and Enforcement of Security Interests Act
SEBI	Securities and Exchange Board of India
SLR	Statutory Liquidity Ratio
ULIP	Unit-linked insurance product
USE	United Stock Exchange

EXECUTIVE SUMMARY

1. **India has made remarkable progress toward developing a stable financial system.** Since liberalization in the early 1990s, the system's growth and increasing commercial orientation have been accompanied by steady improvements in the legal, regulatory, and supervisory framework. The Indian economy and its financial system weathered the global financial crisis well—due to strong balance sheets and profitability entering the crisis, a robust regulatory framework, and timely actions to counter pressures on liquidity, the supply of credit, and aggregate demand.

2. **Despite these recent successes, India's financial sector still confronts long-standing impediments to its ability to support growth as well as new challenges to stability.**

- The prominent role of the state in the financial sector—through ownership of large financial institutions, captive government financing, directed credit to priority sectors, tight controls over the range of allowable activities, and restrictions on the availability of foreign capital—contributes to a build-up of fiscal contingent liabilities and creates a risk of capital misallocation that may constrain economic growth. Gradually reducing mandatory holdings of government securities by financial institutions, and allowing greater access to private (domestic and foreign) sources of capital, would provide greater room for the financial sector to intermediate funds toward productive economic activities, thereby improving prospects for sustained growth.
- The system is also becoming more complex—interlinkages across markets and institutions as well as across borders are growing, and conglomerate structures, including prospectively mixed conglomerates, are on the rise. Continued improvements in regulation, and strengthening of supervision and the financial stability framework, will be required to avoid a buildup of new vulnerabilities.

3. **In the near term, however, notwithstanding risks related to a worsening of bank asset quality and renewed pressures on systemic liquidity, financial system vulnerabilities appear manageable.**

- The combination of a sharp credit expansion and a more recent economic slowdown is putting pressure on banks' asset quality, especially for infrastructure and priority sector lending. Group concentrations have reached troubling levels at some banks.
- As demonstrated by the current turbulence in international markets, there is a risk of reversal of capital flows and a repeat of the liquidity pressures experienced in 2008.

- Stress tests suggest, however, that banks' substantial buffers of high quality assets (cash and holdings of government paper) should enable them to deal with such pressures, including through recourse to central bank facilities.

4. **The oversight regime for banks, insurance, and securities markets is largely in compliance with international standards, but some gaps remain.** A common issue across the sectors is the lack of *de jure* independence, which can be rendered more challenging by the intricate relationship with state-owned supervised entities and their business decisions. A framework for consolidated supervision of financial conglomerates is still being developed. There are also gaps in prudential regulation, including the large exposures and related-party lending regime in banks, and valuation and solvency requirements in insurance. Better monitoring of compliance with reporting, auditing, and accounting requirements for securities issuers, and mechanisms for pursuing criminal enforcement will further strengthen the securities regulation framework. Areas for further strengthening of securities clearing and settlement systems include the legal framework for settlement of corporate securities, liquidity risk management for central counterparties (CCPs), and regulatory coordination. In light of the growing complexity of financial services, supervisory effectiveness needs to be enhanced through augmenting resources and skilled personnel, and revising staffing policies to enable expertise to be built and retained in the supervisory function. Finally, regulators must have clear mandates that focus on the safety and soundness of regulated institutions, risk management, disclosure, and proper market conduct; supervisory involvement in decisions related to credit and asset allocation should be avoided.

5. **The multiple roles of Reserve Bank of India (RBI) create the potential for conflicting goals.** RBI officers are nominated as directors on the Boards of public banks while at the same time RBI serves as the prudential supervisor of these banks. It would be preferable for the government to focus on policies that ensure the appointment of well-qualified, independent Board members that are not from the RBI. And while there may be some synergies, RBI's role as monetary authority, bank regulator, and government debt manager may have led it to require banks to hold larger holdings of government debt than might be needed on prudential grounds. Finally, using the banking system rather than government programs in meeting the needs of priority sectors (agriculture, small and micro credit, education, health) and underserved areas may conflict with RBI's supervisory role.

6. **In light of its commitment to retain the public sector character of state-owned banks, the government needs to consider how to manage its ownership in ways that are compatible with the public banks prudently financing a rapidly growing economy.** To perform competitively, banks need the flexibility to attract top notch financial talent, innovate, enhance risk management, and build up capital. Public ownership should not impose obligations or restrictions that limit banks' ability to remain competitive and sound.

7. **More focus on crisis management structures and planning is needed.** RBI has broad resolution authority, but stronger powers to conduct carve-outs and more attention to

crisis preparedness would be desirable. Resolution powers and contingency planning for insurance companies and the payment system also need strengthening. While in the past, problems in the banking system were addressed by the absorption of weak institutions into stronger ones, going forward fiscal constraints and the absence of suitable acquirers may require alternative approaches. The effectiveness of the deposit insurance scheme can also be bolstered by providing it with powers to appoint liquidators and strengthening its funding.

8. **The authorities have taken a number of steps recently to promote the development of fixed income markets but further measures would be desirable.** In particular, gradually reducing the Statutory Liquidity Ratio (SLR) in line with evolving international liquidity requirements would support not only deeper capital markets but also systemic liquidity management and monetary transmission. Further use of capital markets to refinance infrastructure loans would help alleviate pressures on public banks—so far, the main lenders to the infrastructure sector.

9. **The existing framework for insolvency and secured transactions has significant shortcomings and needs to be addressed.** The corporate insolvency framework, in particular, requires a comprehensive and modern insolvency law with a viable reorganization regime and stronger supporting institutions. The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interests (SARFAESI) Act has given some creditors (banks and certain other financial institutions) out-of-court enforcement, but the timeliness and credit registry provisions need improvement and coverage should be extended.

10. **The authorities' strong and longstanding commitment to financial inclusion could be further enhanced by providing more room for private initiative and competition.**¹ Current initiatives tend to be prescriptive and may discourage market players from seeking more cost-effective and sustainable ways of reaching the underserved. The passage of the draft legislation that will create legal certainty and acknowledge the important role microfinance institutions can play in financial inclusion should be a high priority. RBI should continue to open up space for nonbank payment service providers.

¹ The FSAP findings in the areas of financial inclusion and consumer protection in credit markets are covered in detail in the World Bank *Financial Sector Assessment*.

Table 1. India: FSAP Update: Main Recommendations²

Recommendations	Priority (H/M)	Time Frame (S/M)
Addressing system-wide risks		
Enhance RBI monitoring of corporate indebtedness, refinancing risk, and foreign exchange exposures. (¶13)	H	S
Improve the performance and financial strength of public financial institutions and subject them to full supervision and regulation. (¶20)	H	M
Financial sector oversight		
Strengthen oversight of banks' overseas operations through Memoranda of Understanding (MOUs) with host countries for information-sharing, onsite inspection programs, and supervisory colleges. (¶34)	H	M
Enhance formal statutory basis for the autonomy of regulators in carrying out their regulatory and supervisory functions. (¶34, 40, 44)	M	M
Tighten the definition of large and related party concentration (short-term) and gradually reduce exposure limits to make them more consistent with international practices. (¶34)	H	M
Enhance specialized expertise available to the supervision function by developing programs to accredit and retain skilled supervisors. (¶36)	H	M
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. (¶46, 67)	H	S
Provide a lead supervisor with legal backing for conducting consolidated supervision including through authority to inspect subsidiaries and affiliates. (¶46)	H	S
Expedite passage of Insurance Law (Amendment) Bill. (¶41)	H	S
Implement corrective action ladder for insurers based on solvency ratios. (¶43)	H	S
Enact legislation formalizing the New Pension Scheme and the Pension Fund Regulatory and Development Authority. (¶32)	H	S

² H/M: High or medium priority level. S/M: Short or medium term recommended implementation.

Recommendations	Priority (H/M)	Time Frame (S/M)
Systemic liquidity, crisis management, and safety nets		
Announce a timetable for the gradual reduction in the SLR and review the use of the hold-to-maturity (HTM) category, taking account of emerging global prudential liquidity requirements. (¶51)	M	M
Strengthen resolution tools by granting stronger powers to supervisors to resolve nonviable entities in an orderly fashion. (¶53)	H	M
Develop and periodically test arrangements to deal with a major disruption to the financial system. (¶54, 66)	H	M
Broadening markets and services		
Ease investment directives and limits to encourage investments in corporate and infrastructure bonds by institutional investors. (¶33, 62)	M	M
Consider further easing of restrictions on bond market investments by foreign institutional investors (FIIs). (¶59)	M	M
Financial markets infrastructure		
Require CCPs to strengthen their liquidity risk management procedures to enable them to cover losses in the event of the failure of a major participant. (¶66)	H	M
Consider replacing the commercial bank settlement model for corporate securities and derivatives with a central bank settlement model. (¶66)	M	M
Enact comprehensive modern corporate insolvency law and upgrade SARFAESI and existing laws governing insolvencies for unincorporated businesses. (¶69)	M	M

I. MACROFINANCIAL SETTING

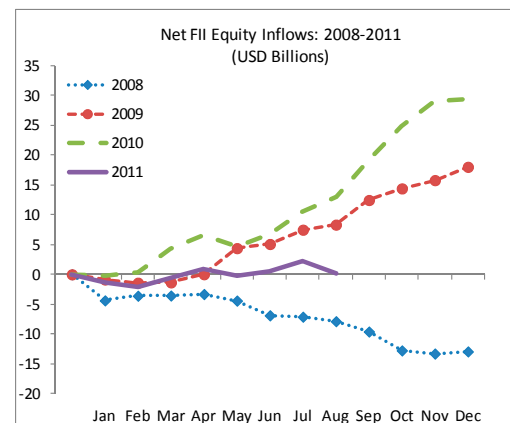
A. Macroeconomic and Financial Environment

11. **India recovered quickly from global market turbulence in 2008/09 but growth has recently slowed.** GDP growth reached 8.4 percent in 2010/11, largely driven by domestic demand, and is projected by the IMF to moderate to 6.8 percent in 2011/12. A number of factors contributed to the slowdown, including the uncertain global environment, governance concerns, and monetary tightening to address high inflation.

12. **India relies on a broad base of capital flows to finance its current account deficit, which has averaged around 2.5 percent of GDP in recent years.** Most of the deficit has been financed by inflows from direct and institutional investors, corporate borrowing, and inflows into deposit accounts by nonresident Indians. The government has demonstrated a willingness to carefully lift capital account restrictions.³ While progress has been made, such as the increase in FII's quotas on local currency bond investments, these ceilings could be further increased, banks could be allowed more flexibility in borrowing abroad, and all nonresidents could be treated uniformly.

13. **In the current environment, India's financial system remains vulnerable to continued tensions in advanced country financial markets.**⁴ The impact on India in 2008 of the global financial crisis came as a surprise to most observers. Key channels of transmission were the equity market, which experienced a sharp reversal of inflows (Figure 1), and Indian large corporations, which shifted from offshore to onshore borrowing and other sources of liquidity (Box 1). Going forward, enhanced RBI monitoring of corporate indebtedness, refinancing risk, and foreign exchange exposures, appears warranted because of their role as a potential channel of contagion. The level of external commercial borrowing by corporates has remained broadly stable at around 5 percent of GDP, and regulation constrains overall (domestic and external) leverage.⁵

Figure 1. India: Nonresident Equity Inflows



³ See Report on Fuller Capital Account Convertibility, 2006 and Report of the Working Group on Foreign Investment, 2010.

⁴ Claims on India by U.S., U.K., and European (ex U.K.) banks were 3.7 percent, 4.2 percent, and 4.1 percent, of India's GDP, respectively, at end-September 2011. Direct bank exposure to Europe is under 1 percent of GDP.

⁵ RBI requires banks to verify that their corporate borrowers' total debt does not exceed one third of assets.

Box 1. Impact of the Crisis and Policy Response

India entered the global financial crisis from a position of relative strength. Strong capital inflows had supported high growth, averaging 8.8 percent in the four years to 2007/08, up from 5.8 percent in the previous ten years, though signs of overheating had started to emerge. A prudent mix of fiscal and monetary tightening during the run-up to the crisis left the authorities policy space to respond.

The effect of the global financial crisis from late 2008 on India was felt immediately. Short-term trade credit collapsed, portfolio inflows fell dramatically, and as companies shifted their borrowing onshore, dollar and rupee liquidity tightened. This put pressure on banks, mutual funds, and subsequently on Non-banking Financial Companies (NBFCs), which relied on the sale of commercial paper to mutual funds for funding purposes. Longer-term flows such as foreign direct investment and external commercial borrowing held up better.

The government and RBI both engaged in substantial support in 2008/09:

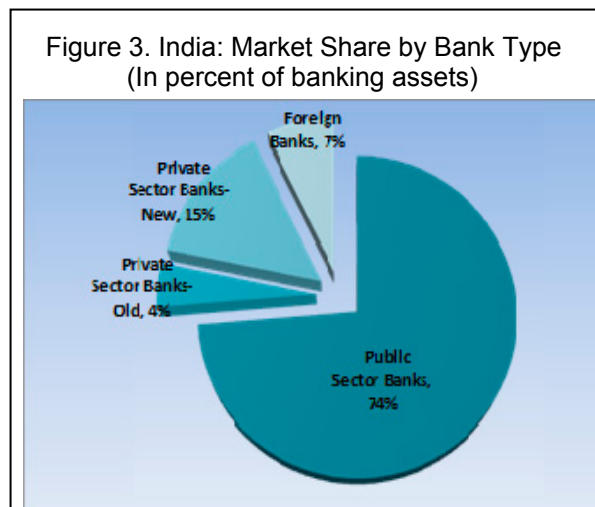
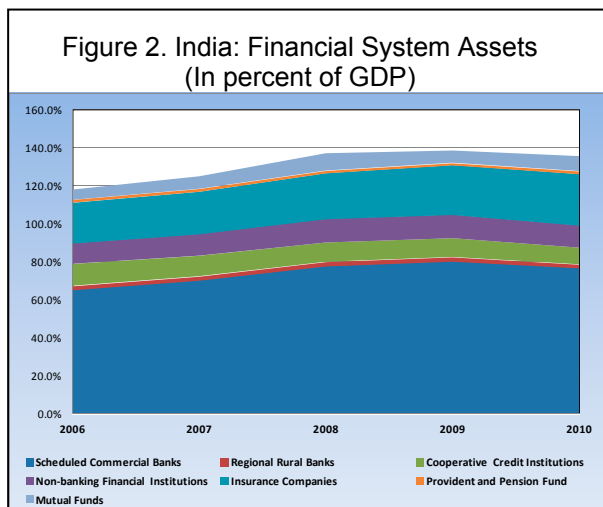
- A large fiscal stimulus was implemented, as part of an already planned expansion of spending along with cuts to indirect tax rates.
- Capital account restrictions were relaxed, such as raising the limit on nonresident purchases of government debt; raising interest rates payable on nonresident Indian deposits; and restrictions on external borrowing by corporates.
- To ensure sufficient dollar liquidity, RBI sold foreign exchange reserves and opened a dollar swaps facility.

To support rupee liquidity, RBI ran down liquidity-draining measures (notably the Market Stabilization Scheme program), cut the Cash Reserve Ratio (CRR), and allowed part of banks' SLR portfolios to be used as collateral. Mutual funds and NBFCs were supported indirectly. The policy rate was cut and an additional Liquidity Adjustment Facility operation was brought in at the end of each day to help keep market rates in line with the target.

B. Overview of the Financial System

14. **India's financial sector is diversified and expanding rapidly.** It comprises commercial banks, other credit institutions, insurance companies, pension funds, and mutual funds, with overall assets of 140 percent of GDP as of end-March 2010 (Figure 2, Appendix Table 3). Commercial banks are the largest group, comprising 55 percent of total financial assets, followed by insurance.⁶ Other bank intermediaries include regional rural banks and cooperative banks that target under-served rural and urban populations. Many NBFCs operate in specialized segments (leasing, factoring, microfinance, infrastructure finance), though some can accept deposits. Pension provision covers 12 percent of the working population and consists of civil service arrangements, a compulsory scheme for formal private sector employees, and private schemes offered through insurance companies.

⁶ Life insurance penetration (gross premium income to GDP) is significantly higher than expected given India's economic, social and cultural features, while non-life penetration is at expected levels.



Sources: RBI, SEBI, and IRDA.

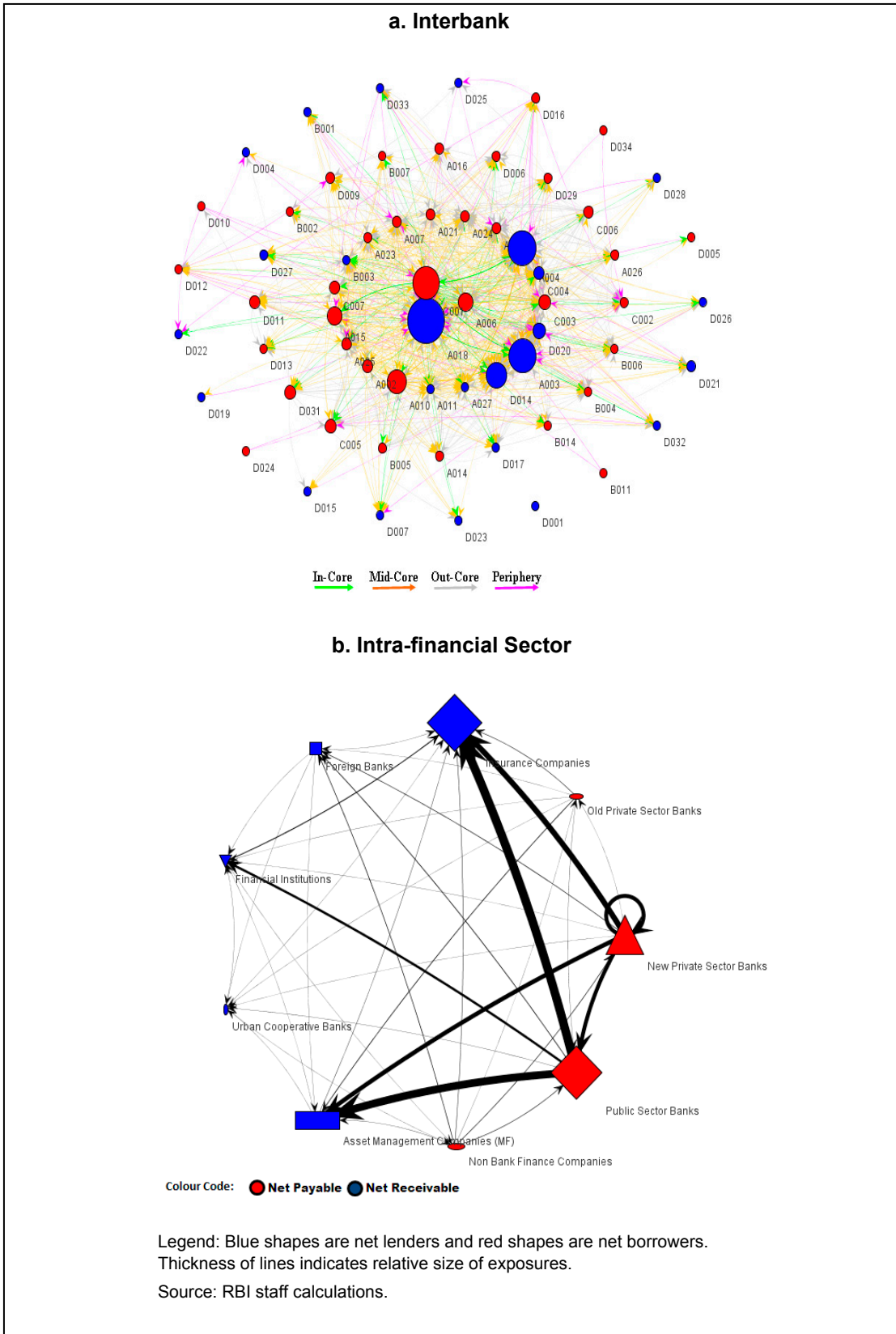
15. **Public ownership is a defining feature of the financial system.** Majority publicly-owned banks account for three quarters of banking system assets (Figure 3).⁷ About 69 percent of insurance premiums and 80 percent of insurance assets are accounted for by public insurers. Most of the pension system is in public hands. The public life insurance company and public provident fund are the two largest providers of funds to the Indian capital market, with US\$200 billion and US\$70 billion, respectively, in assets under management.

16. **Another structural feature is limited foreign penetration.** Foreign banks account for 7 percent of banking system assets, and their expansion is restricted. A change in the current entry norms for foreign banks (which permit only a branch presence in India, albeit with locally assigned capital requirements) is under discussion, which would provide incentives for foreign banks to incorporate as subsidiaries. In the insurance sector, foreign joint ventures are limited to a maximum of 26 percent of equity.

17. **Interconnectedness and complexity are increasing.** Banks' connections through the interbank market reveal a tiered structure whereby large banks at the core deal mostly with each other, and banks at the periphery (foreign and old private banks) have minimal exposure to each other (Figure 4a). Banks, NBFCs, and mutual funds are linked through the wholesale funding market (Figure 4b). Financial conglomeration has also taken a foothold with major banks owning insurance, fund management companies, and securities firms. Currently, there are 12 financial conglomerates, of which 6 are bank-led, 3 are insurance-led, 1 is a mutual fund group, and 2 are led by NBFCs. Bank financial conglomerates comprise over 20 percent of financial system assets and 35 percent of commercial banks' assets.

⁷ Two waves of bank nationalization in 1969 and 1980 resulted in public ownership of all except a few small banks (known as "old private sector banks"). Most "new" private bank entered the market in the mid-1990s.

Figure 4. India: Financial System Interlinkages, June 2011



18. Capital markets are characterized by liquid money and equity markets, a large government bond market, and a relatively underdeveloped corporate bond market.

- The overnight interbank market, the overnight repo market, and the spot foreign exchange market are all very liquid, with a large volume of trading. Short-term supply and demand imbalances at times lead to price volatility—in the foreign exchange market because of regulatory constraints on position taking and hedging instruments, and to some extent in the money markets around events such as large end-quarter tax payments.
- The primary market for government securities is active but largely captive. This has led to a reduced level of secondary market trading and poor development of the yield curve; and in turn, to thin interest rate derivatives markets and volatile prices. The overnight index swaps market is amongst the most liquid for yield curve hedging purposes.
- The corporate bond market has developed rapidly since 2007 but remains small. It is dominated by highly-rated (AAA and AA) securities and issuance by financial firms (banks and NBFCs). The private placement market is considerably more buoyant than the public market.
- Market capitalization in the equity markets has increased considerably and now amounts to 87 per cent of GDP, with over 5,000 companies listed on the Bombay Stock Exchange (BSE).⁸ Market capitalization is concentrated with the top 10 companies representing 31 percent of the total.

II. OVERALL STABILITY ASSESSMENT

19. India has made remarkable progress toward fostering a stable and well-developed financial system. Since the early 1990s, the system's growth and increased commercial orientation have been accompanied by steady improvements in the legal, regulatory, and supervisory framework. The reform agenda has been guided by the work of several government-sponsored high level committees, which highlighted key challenges in developing the financial system and identified key vulnerabilities.⁹ Many of their recommendations have been implemented over time, though a broad consensus is yet to emerge on moving ahead with those pertaining to the role of the state in the financial system.

⁸ The bulk of companies listed on the BSE are also listed on the National Stock Exchange (NSE), whose market cap was 85 percent in 2010/11. Secondary market trading is concentrated in the NSE.

⁹ See for example, the reports of the Narimhan Committee (1991 and 1998); the Rajan Committee on Financial Sector Reforms (2008) and the Committee on Financial Sector Assessment (2009).

A. Bank Soundness and Performance

20. **The commercial banking system is well capitalized and profitable, but despite good progress in performance over the years, public banks remain weaker than private banks.** Banks' risk-weighted capital adequacy ratio (CRAR) averaged over 14 percent in March 2011 (Figure 5), with generally higher capital ratios in private banks. Earnings are on average in line with regional peers, but new private banks outperform public banks in part due to adoption by the former of new technology, which has compressed operating costs. As public banks make up the majority of the banking system, their weaker performance may act as a constraint on India's growth potential given the economy's reliance on bank financing.

21. **Going forward, commercial banks will need more capital to support continued credit growth and meet Basel III requirements.** Over the next several years banks—in particular public banks—will need to raise additional capital to comply with Basel III while at the same time expanding their balance sheets to support economic growth (Box 2). Under current government policy, public banks are dependent on the government to provide the majority of any capital needs, which will put pressures on India's fiscal position.¹⁰

22. **Rapid credit growth and a slower economy will likely put pressure on banks' asset quality.** Banks' nonperforming asset (NPA) ratio improved markedly in recent years, declining from 5.2 percent in 2005 to 2.4 percent in 2008,¹¹ but asset quality declined more recently, notably for loans to priority sectors and infrastructure. RBI has required banks to increase provisioning to 70 percent of end-September 2010 NPAs but only private banks have reached this amount (which is also becoming increasingly inadequate as NPAs rise).

23. **Group concentrations are well in excess of prudent levels and should be reduced so that the viability of a bank is not threatened by the failure of a single large borrower.** Top group exposures were 30 percent of capital on average for the banking system as of June 2011. Prudential rules allow single group concentrations to reach up to 55 percent of a bank's capital (see Section III), and some banks appear to have breached this already high limit.

24. **Funding appears stable but increased asset-liability maturity mismatches have made banks susceptible to liquidity pressures.** Retail deposits form the bulk of bank liabilities (over 50 percent), and wholesale deposits are 10 percent of liabilities. External borrowing by banks is capped at the higher of 50 percent of Tier 1 capital or US\$10 million, and amounted to 2.8 percent and 7.3 percent of total liabilities for public and domestic

¹⁰ The government announced in October US\$5 billion for recapitalizing public banks during 2011/12.

¹¹ NPAs were stable during the crisis partly as a result of a relaxation of prudential norms (banks were allowed to restructure loans in the period October 2008–June 2009 without classifying them as nonperforming).

private banks, respectively. Maturity mismatches partly relate to the increase in infrastructure lending, which has not been matched by equivalent long-term liabilities (see Figure 5).

25. **Commercial banks are required to hold substantial precautionary buffers of government securities.** RBI uses the CRR (set at 5.5 percent) and SLR (set at 24 percent) to provide banks with sizeable buffers of low-risk assets while also supporting the government's financing needs. RBI's flexible use of SLR and CRR, together with a range of other measures, enabled banks to cope well with liquidity pressures during the global crisis. Most holdings of government securities, however, are not available to meet liquid needs in normal times as they have to be held on a continuous basis to meet SLR requirements.

26. **Stress tests confirm that commercial banks are well positioned to withstand a range of severe shocks.** Stress tests were undertaken jointly with RBI (Box 3), and provide important insights into the resilience of Indian banks:¹²

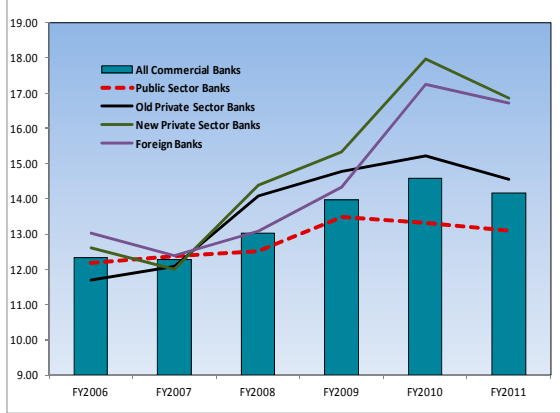
- *Macro credit risk tests* indicate that the system overall is resilient to aggregate increases in credit risk. Under various risk scenarios, the banking system remains adequately capitalized—with a sharp initial NPA increase declining gradually with the recovery of GDP (Figure 6).
- *Liquidity stress tests* indicate that the banking system could withstand severe funding and market liquidity shocks, for instance coming from a reversal of capital flows, under the assumption that the SLR is used in repos with RBI with a 5 percent haircut. Tests included a sudden, substantial withdrawal of funds over a five-day and 30-day period, as well as tests on maturity mismatch and roll-over risk. Most banks pass several liquidity stress tests, with maturity mismatches presenting the highest risk.
- *Single-factor sensitivity analyses* suggest that the system could withstand a range of shocks. Credit risk—including exposures to agriculture, power, telecommunications, and real estate—is the main source of vulnerability but appears to be manageable given high initial levels of capital and good profitability; only a few small banks would appear in need of recapitalization. Shocks to market risks (interest rate, foreign exchange, equity price risks) have low impact largely due to strict regulations that limit maturity gaps, net foreign currency exposures, and equity market exposures.

¹² Stress tests covered 10 (bottom-up tests) to 60 (top-down tests) commercial banks (50 percent to 99 percent of the banking system). The banks for the bottom-up exercise were chosen according to their systemic importance.

Figure 5. India: Commercial Banks' Soundness and Performance

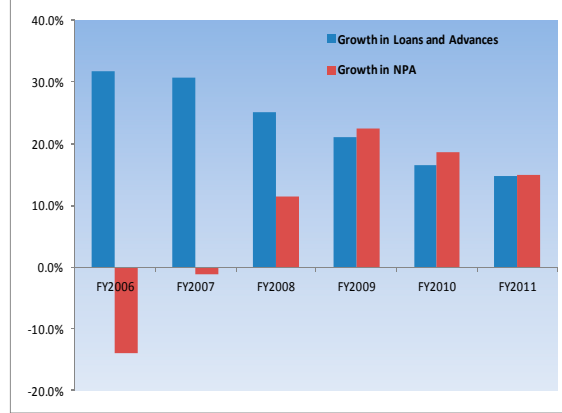
Banks are well capitalized but differences remain across types of bank ...

CAR: Comparison Between Different Bank-Groups, 2006–2011



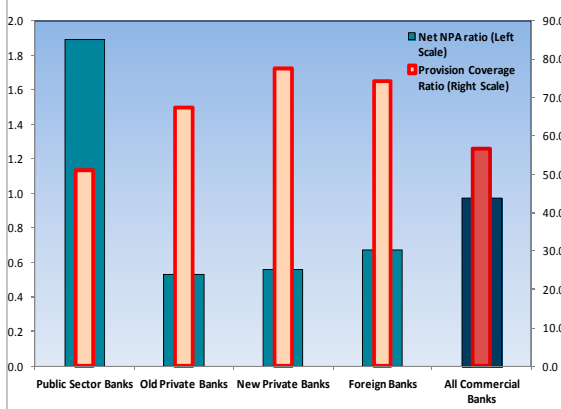
... and asset quality has improved markedly despite a recent uptick in NPAs...

Growth in Credit and NPA, 2006–2011



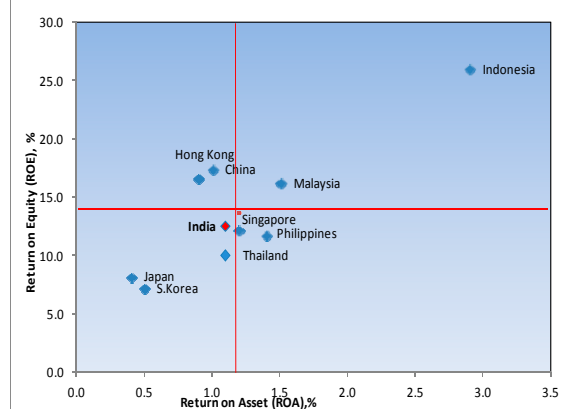
... with asset quality and provisioning relatively weaker in public banks.

Net NPA and Provision Coverage Ratios, FY2011



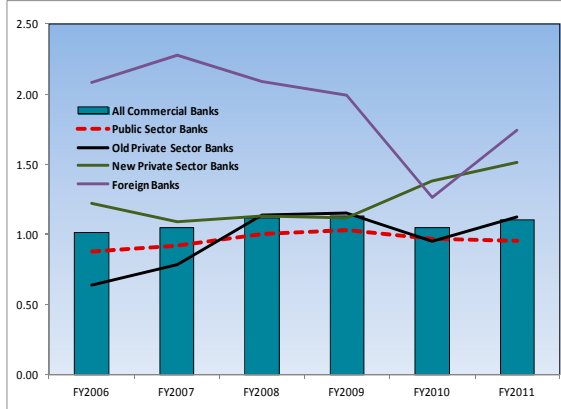
Commercial banks are profitable, close to peers...

Relative Returns in 2010: India and Asia



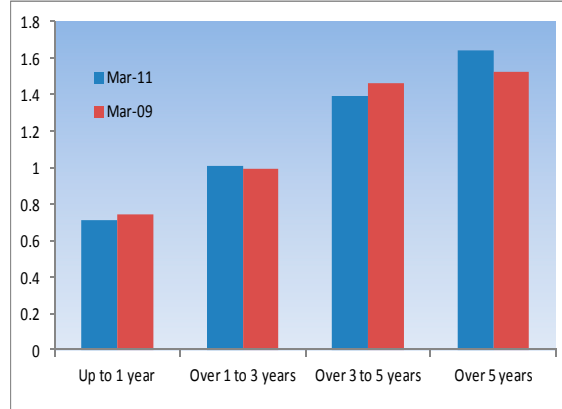
... with better earnings performance in private than public banks.

Return on Assets of Various Bank-Groups



Asset-liability maturity mismatches may raise strains during times of liquidity pressure.

Banks' Assets-to-Liabilities Ratio, 2009 and 2011



Sources: RBI, IMF.

Box 2. How Much Bank Equity is Needed to Meet Credit Demand and Basel III?

This box examines the amount of equity capital domestic banks would need over the next 8 years ending March 2019 to support economic growth and to meet Basel III minimum common equity capital requirement of 7.0 percent (minimum common equity of 4.5 percent with capital conservation buffer of 2.5 percent). Three hypothetical scenarios that form the basis of the analysis are as follows:

1. Annual GDP growth rate of 7 percent with credit growth of 11.5 percent per year.
2. Annual GDP growth rate of 8.5 percent with credit growth of 14 percent per year.
3. Annual GDP growth rate of 10 percent with credit growth of 17 percent per year.

The analysis is based on a sample of 30 banks including public and private banks, covering over 90 percent of commercial banking system's assets, using publicly available data. Credit growth estimates are premised on real GDP growth scenarios and projected inflation while capital generation is derived from market estimates of Earnings per Share (which impute projections of income on a net basis after expected costs and other provisions, including NPA write-offs). Loan growth is assumed to be funded by growth in deposits, with loan-to-deposit ratios being maintained at around 70 percent.

Results. In a mid-growth scenario with average earnings generation, 14 banks are expected to fall short of Basel III minimum common equity requirement with a capital buffer at 7 percent, of which 13 are public banks. On average, in a mid-growth scenario, additional capital needs amount to around US\$19.6 billion. A high growth scenario would bring the capital needs to around US\$50.6 billion and 23 banks would need additional capital, of which 20 are public banks.

If the rate of economic growth were to between 7 percent to 10 percent per year till 2019, between 9 to 20 public banks out of 21 could fall short of Basel III common equity capital requirements with average earnings growth. Additional capital needs ranges between US\$5.1 billion to US\$49.9 billion. Out of this, between 51 percent and 65 percent could be sourced from the private sector while allowing for the government's stake to be reduced to 51 percent (see below table).

To replace hybrid Tier 1 securities as required under Basel III,¹ commercial banks would need an additional US\$7.8 billion, of which US\$6.9 billion would be needed by public banks.

Basel III Minimum Common Equity at 7.0 Percent

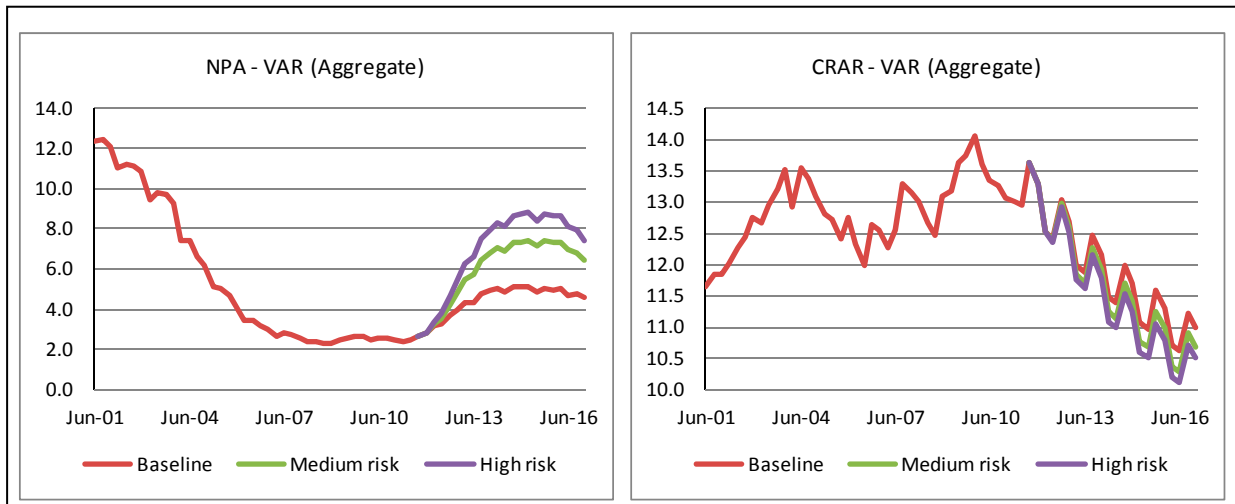
Number of Banks falling short of Basel III Core Tier 1 Capital Requirements of 7 percent	Scenario 1	Scenario 2	Scenario 3
All 30 Banks			
With earnings generation (mean)	10	14	23
With earnings generation (low)	13	17	26
Additional Equity Capital needed (US\$ million)	5,200	19,635	50,564
Additional Equity Capital needed (percent of GDP)	0.3	1.2	3.1
<i>of which: 21 Public Sector Banks</i> (81 percent of assets in sample)			
With earnings generation (mean)	9	13	20
With earnings generation (low)	12	14	21
Additional Equity Capital needed with mean earnings (US\$ million)	5,134	19,370	49,886
Additional Equity Capital needed (percent of GDP)	0.3	1.2	3.1
Percentage of funds which can be raised from the private sector allowing for <u>govt.'s shareholding to be reduced to 51 percent.</u>	65%	54%	51%

Sources: Bloomberg, Bankscope, Reuters, and IMF staff calculations.

¹ These include Tier 1 instruments other than common equity (e.g., innovative perpetual debt instruments and perpetual non-cumulative preference shares). At 8 percent of Tier 1 capital, India's composition of Tier 1 hybrid and preferred securities is higher than the region's peer average of 6.5 percent.

27. **Contagion effects in the banking system were analyzed using network analysis.** Specifically, analysis by RBI shows that the failure of the two most connected net borrowing banks would spread into five stages of contagion (Figure 7). Six banks (in black) would see their Tier 1 capital to risk weighted assets decline below 6 percent; least affected banks (in green) would remain above 9 percent; three banks (in yellow) would see their capital fall to 6–9 percent.

Figure 6. India: Evolution of System NPAs and CRAR under Stress
(Percent of total advances and RWAs respectively)



Source: Reserve Bank of India.

Box 3. Stress Test Scenarios and Shocks

The macro stress tests used a *baseline* and *two adverse macroeconomic scenarios*, with projections based on end FY2010/11. The scenarios are based on the April 2011 *World Economic Outlook*; due to downward adjustments in GDP projections since then, the medium-risk scenario has now effectively become closer to the baseline (see table).

Two

adverse macroeconomic scenarios were used: medium and severe. These broadly correspond to two and two and a half standard deviations in GDP growth over the last 15 years, respectively, with shocks occurring in FY2011/12, with the growth path improving over the following four years. Other macroeconomic variables were derived based on IMF staff calculations based on a partial equilibrium macroeconomic models for the Indian economy. An adverse shock to the Indian GDP could be fueled by either domestic or external shock, such as a deepening of the global economic slowdown.

Macroeconomic Scenario Assumptions (Changes in percent, unless indicated otherwise)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
GDP growth						
Baseline - September	9.9	7.5	7.9	8.1	8.1	8.1
Medium risk	9.9	5.1	5.5	6.5	7.0	7.5
Severe risk	9.9	3.8	4.7	5.8	6.5	7.5
WPI Inflation						
Baseline - September	9.0	7.9	6.6	5.8	5.4	5.4
Medium risk	9.0	7.7	6.4	6.0	6.0	6.3
Severe risk	9.0	7.6	6.1	5.9	6.1	6.5
Short-term (call) interest rate						
Baseline - September	6.2	7.2	6.3	6.3	6.3	6.3
Medium risk	6.2	7.7	6.3	6.3	6.3	6.3
Severe risk	6.2	8.2	6.3	6.3	6.3	6.3
Export/GDP ratio						
Baseline - September	20.2	19.9	20.7	21.4	22.0	22.6
Medium risk	20.2	19.9	21.7	22.8	23.6	24.4
Severe risk	20.2	20.1	22.1	23.4	24.4	25.1

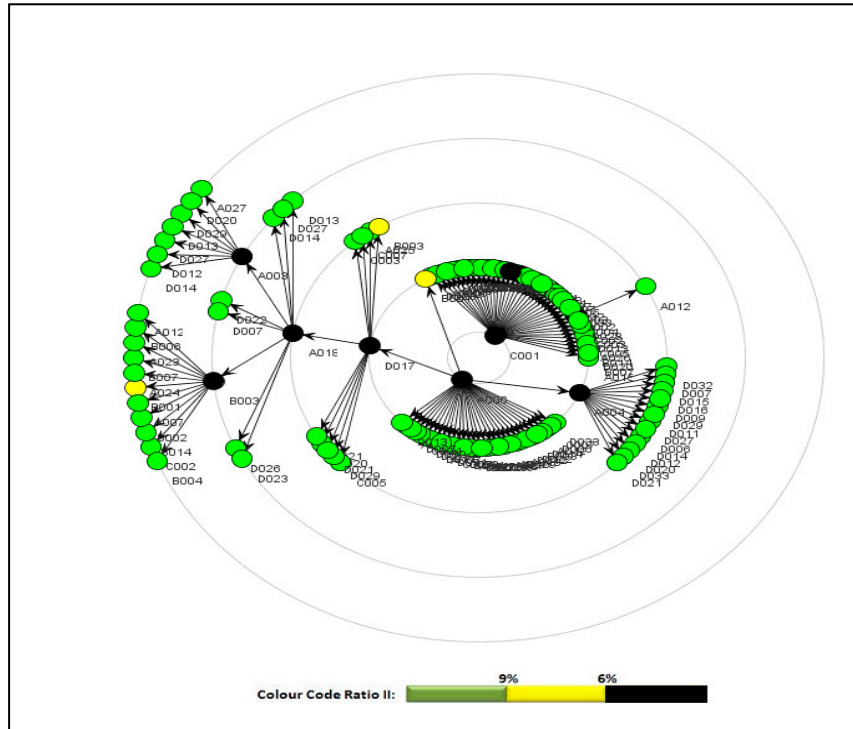
Source: IMF staff estimates.

A range of single factor shocks were also tested, both top-down and bottom up. Calibrations were based on Indian historical data for the last 15 years, as well as the experience from other countries:

- *Credit risk* was tested through several shocks, including increases in NPAs by up to 150 percent; a reclassification of 15 percent of restructured loans; a uniform downgrade of all corporate borrowers by one notch; and an increase in probabilities of default by 25 percent.¹
- *Interest Rate Risk* was tested for both the banking and trading books, including parallel downward and upward shift of the INR yield curve (250 bps); a steepening of the curve (100 bps linearly spread between 15-day and over 25-year maturities; and an inversion of the curve (two-year rates up 250 bps and 10-year rates up 100 bps).
- *Foreign Exchange Risk* was tested, including a 10 percent and 15 percent depreciation of INR in 30 days (the former corresponding to the experience of 2008); a 10 percent and 15 percent appreciation of INR in 30 days; and a reverse test (how much depreciation of INR is necessary for Tier 1 capital to move down to 3 percent over 60 days).
- *Equity Price Risk*: a drop in the equity price index by 40 percent within a 30-day period, corresponding to the experience of 2008.
- *Liquidity Risk*: a 30-day deposit and, separately, wholesale funding withdrawal of 10 percent; and a 5-day deposit (wholesale funding) withdrawal of 5 (3) percent.

¹ Under the Basel II standardized approach (adopted in India), banks are not required to calculate loss given default.

Figure 7. India: Contagion Analysis



Source: RBI staff calculations.

28. **The financial health of a significant majority of other (non-commercial) banks—notably, regional rural banks and cooperative credit institutions—is weak.** Asset quality is a concern for regional rural banks as their gross NPA ratio, on average, is nearly double that of commercial banks and in some regions, close to 10 percent. Among cooperative credit institutions, while profitability has improved for urban cooperative banks, their asset quality and capital base remain weak. Many rural cooperative banks are also weighed down by losses and very high NPA ratios.

B. Soundness and Performance of Other Financial Intermediaries

Insurance

29. **There is a need to achieve a healthier competitive environment in the life insurance industry.** The public Life Insurance Corporation of India (LIC) dominates the market, benefiting from its distribution capacity, balance sheet strength, and an explicit government guarantee; while about half of the private insurers are making accounting losses, partly reflecting the costs of establishing adequate scale. Actions that could be taken to promote a sounder, more competitive market include: (i) providing the government with administrative scope to phase out LIC's government guarantee (or requiring LIC to price the guarantee into its products); (ii) raising the ceiling on foreign joint venture ownership from the current 26 percent of issued equity; and (iii) facilitating the exit of weak insurers employing the merger and portfolio transfer mechanisms currently available. The first two

measures are contemplated in amending legislation that has been awaiting parliamentary consideration.

30. **The non-life sector has a more granular and competitive structure, but faces weak profitability.** The four state-owned non-life insurers hold 60 percent of the market, with roughly equal market shares. Two of the non-life insurers have dipped below Insurance Regulatory and Development Authority (IRDA)'s minimum solvency requirement, and the supervisor has had to grant industry level regulatory forbearance for a limited period. This is a direct result of heavy losses incurred in the mandatory commercial motor portfolio, which has historically been underpriced. Actuarially correct pricing will need to be applied if a relatively free market structure is to be sustained. The medical insurance portfolio has also challenges reflecting poor information, poor administration, and fraud. Remedial actions to improve pricing databases are underway but more may be required, including establishing a centralized fraud database.

Pensions

31. **The Employees Provident Fund Organization (EPFO) is the largest pension provider in India.** Funds managed by EPFO are invested in government or government guaranteed securities, or securities issued by public financial institutions and public sector companies and term deposits of public banks. Interest credited to member provident fund accounts has not been directly tied to actual returns, and the latest published defined benefit fund valuation was for 2003/4 and showed a deficit of about US\$4.5 billion. For the past three years, the administered interest rate credited to members was a fixed 8.5 percent.

The New Pension Scheme (NPS) was established to address the growing unfunded pension liability of government and to increase pension coverage. It is a defined contribution scheme that began operations in January 2004. Initial membership of the NPS has consisted of new recruits to the central and state civil service ranks, with all but three states joining the NPS. Private individuals have been permitted to join since August 2008, and efforts are being made to attract the working poor through a co-contribution from the government. The NPS remains a small component of the Indian financial sector in terms of both membership and assets under management, but has considerable potential for growth.

32. **There is a need to formalize the NPS and its new regulator through relevant legislation.** Pending the passage of the enabling legislation, the system was initially established by executive order. The new regulator, the Pension Fund Regulatory and Development Authority (PFRDA), which has a skeletal staff at this stage, has appointed external asset managers to administer and manage the system under commercial contracts. The enabling legislation (submitted in 2005) is awaiting parliamentary approval, and ensuring passage is critical for the credibility of the reform process.

33. **The investment guidelines for pension schemes should be reconsidered to support retirement outcomes and the development of capital markets.** Current restrictions result in a heavy preponderance of government and public sector securities in

pension fund portfolios (100 percent for EPFO and a minimum of 50 percent for the civil service pensions managed by NPS or privately provided pensions of employers who have opted out of the EPFO defined benefit scheme). Only unit-linked investment products and the few private participants in the NPS are able to invest any significant share of funds in assets carrying long-term risk premiums such as equities or corporate bonds.

III. STRENGTHENING FINANCIAL SECTOR OVERSIGHT

A. Sectoral Oversight

Banking

34. **The regulatory and supervisory regime for banks in India is strong and well developed but a few gaps and implementation constraints remain.** The regime consists of regulatory capital requirements in excess of Basel minima, conservative liquidity requirements, frequent, hands-on, and comprehensive onsite inspections, and a sound framework for granting banking licenses (Box 4). Limits are in place on interbank exposures and RBI has taken a cautious approach to approving use of capital markets instruments. Banks are required to maintain a capital adequacy ratio of at least 9 percent on both solo and consolidated basis in line with the Basel II standardized approach. The system exhibits a strong compliance with the Basel Core Principles (BCP), with significant progress since the 2001 FSAP assessment. The main gaps are:

- *Indian banks have established overseas operations in more than 45 jurisdictions but there are material gaps in information flows with overseas supervisors.* RBI has MOUs with only two and limited informal arrangements with others. Overseas inspections are also not conducted regularly. RBI is moving ahead to put in place more MOUs to address some of the concerns on home/host coordination and is considering establishing supervisory colleges for its major internationally active banks.
- *Several legal provisions limit the de jure independence of RBI although no instances of de facto government interference were observed.* Some legal provisions in the Banking Regulation Act allow the central government to give directions to RBI, require RBI to perform an inspection, overrule RBI's decisions, and supersede the RBI Central Board. Removing these provisions and specifying in law the reasons for removal of the head of the central bank during his/her term would provide greater legal certainty regarding RBI independence.
- *The regime for large exposures and connected lending needs tightening in line with good international practice.* The current large exposure limit is a maximum of 55 percent of a banking groups' capital in part because the Indian economy is highly dependent on bank finance and corporate needs for credit have grown much faster than the Indian banking sector. Nonetheless, it is important that the exposure limits

are brought in line with international practices of 10 percent to 25 percent, depending on the nature of the borrower and collateral, while developing alternative sources of funding outside of the banking sector (see Section V).

Box 4. Commercial Bank Licensing Policy—What Lies Ahead

Following the nationalization of banks, many of which were owned by large industrial houses, no private banks were licensed until the new licensing policy was issued in 1993. Since then, a cautious approach has been taken to issue limited licenses under an announced window and then revisit the policy after an interregnum. Ten banks were licensed under the 1993 policy, with enhanced entry requirements and inclusion expectations. The experience was mixed; five of these banks subsequently closed, merged, or were acquired by other banks. The policy was revised in 2003 and further raised entry requirements; laid out inclusion targets; and specifically excluded large industrial houses from being promoters of new banks. Two banks were licensed under this policy.

In 2011, guidelines were issued for a new window of bank licenses with the stated objective of issuing a limited number of new licenses to foster competition; reduce costs; improve service; and promote financial inclusion. While several elements of the 2003 policy have been retained, entry requirements have been raised to minimum capital of INR 5 billion and capital adequacy of 12 percent. The key difference with past policy is the express eligibility of large industrial houses to promote new banks; or to convert NBFCs they own into new banks.

International experience has supported the prudent policy position of disallowing industrial houses from promoting and owning banks. Consolidated supervision frameworks and capabilities are weak even for bank-led groups in the majority of jurisdictions assessed under the FSAP, and frameworks for the oversight of financial conglomerates continue to be a “work in progress” at the international level. Even greater complexity is introduced in supervisory frameworks when a significant part of the group is engaged in nonfinancial activity, the risks of which are not well captured by current supervisory frameworks. This may lead to concerns of ‘under the radar’ risk transfer; concentration of risk exposures; and contagion across the group.

The policy acknowledges these risks and aims to address them through several prudent means: promoters with greater than 10 percent income from/ assets in volatile sectors like real estate and brokerage are not eligible; a non-operating holding company, which cannot be leveraged, must be set up to hold all the financial entities in the group and in turn be supervised by RBI as a NBFC; 50 percent of directors (increased to a majority in some cases) must be independent of the promoter; and the bank, group entities, non-operating holding company, and the promoter would be subject to RBI’s consolidated supervision.

In the current context, the risks may outweigh the benefits. As pointed out elsewhere in the report, the legal, operational, and regulatory framework for consolidated supervision of both bank led groups and financial conglomerates is still missing some important elements, and it would be prudent to first put in place and gain sufficient experience from implementing a comprehensive framework for this purpose before even considering whether to proceed with the entry of mixed groups and conglomerates.

35. **While RBI’s supervisory program is largely viewed as fit for purpose by stakeholders, there are opportunities to enhance its effectiveness.** At the time of the assessment, an employee of RBI acted as a nominee director on the Board of each public bank; played an active role in the Board’s discussions, and was sometimes implicitly relied upon to ensure regulatory compliance. While having a senior RBI official on the Board of public banks may provide a level of comfort to the government, it blurs the lines between the

supervisory role of RBI and a role as the Board’s compliance guardian. Further, RBI cannot force public banks to cease operations or remove officers/directors of a public bank, which limits its supervisory effectiveness regarding public banks.

36. Further steps to enhance the specialized expertise of supervisory personnel and implement new supervisory techniques and approaches should also be taken to strengthen supervisory intensity and effectiveness. Indian banks are increasing their risk management sophistication and moving toward implementation of Basel II advanced approaches. Improving the capacity of the supervisory areas to develop and retain expertise for instance by reconsidering the RBI’s staff rotation policy and introducing an “inspector certification” program would be important steps in this regard. Accelerating the phased implementation of a more risk-focused approach; requiring banks to implement a sound model validation policy; incorporating model testing in onsite inspections; and structuring onsite reviews of specific risk management areas are important next steps for the supervisory process.

Nonbanking financial companies

37. Several NBFCs are considered to be systemically important and the RBI is planning on focusing its regulatory efforts on them. Prudential norms are prescribed for deposit-taking NBFCs and a subset of non-deposit taking NBFCs is recognized by RBI to be systemically important (currently defined as those with assets above INR 1 billion pending elaboration of a more sophisticated approach). Issuance of new licenses to deposit-taking NBFCs has ceased and RBI has encouraged those remaining to stop taking deposits. While deposit-taking NBFCs have been shrinking in number and importance, many non-deposit taking NBFCs, including some very large ones, do regularly access public funds and are interconnected with the rest of the financial system including banks. A recent RBI Working Group, while noting concerns regarding risks that could arise from “regulatory gaps, arbitrage opportunities, and from the inter-connectedness of various activities,” recommends that smaller NBFCs be encouraged to de-register, allowing RBI to focus its regulatory efforts on those that are systemically important. The authorities should maintain minimum data reporting even for NBFCs that de-register, so that regulators can monitor developments and the risks being undertaken.

Securities

38. India has made significant progress in the implementation of the International Organization of Securities Commissions (IOSCO) Principles since the 2001 assessment. Securities and Exchange Board of India (SEBI) has now broad regulatory, licensing, investigation, supervision, and enforcement powers. Based on its strong legal framework, SEBI has developed robust regulations for different types of market participants, including issuers, collective investment schemes, brokers, portfolio managers, underwriters, and recognized regional stock exchanges (RSEs)—although in the medium term its approach to

capital requirements should become more risk-based. Efforts made by SEBI in recent years to build a robust market surveillance system as well as separate investigation and enforcement departments have translated into effective enforcement of unfair trading practices, such as market manipulation and insider trading.

39. **SEBI faces three challenges that impact the effectiveness of supervisory programs for issuers and securities intermediaries.** It should focus on strengthening the supervision of intermediaries, including fund managers and the mutual funds they administer; improve mechanisms to ensure compliance of issuers with reporting requirements; and develop better mechanisms to ensure compliance with accounting and auditing requirements. SEBI is aware of these challenges and is taking a number of steps in this regard. Going ahead, decisions will have to be taken on the degree to which SEBI should continue to rely on the exchanges for self-regulation; whether SEBI alone should review information submitted by listed companies and whether the Quality Review Board meets the requirements for independent oversight of auditors.¹³ These decisions will have an impact on SEBI's resources.

40. **Like the other supervisory agencies, the legal framework limits the *de jure* independence of SEBI.** While SEBI has displayed independence in its functioning in practice, the members of the Board can be removed without cause and the government can supersede the Board and give SEBI directions on matters of policy. Remedying these provisions would further strengthen the credibility of the supervisory process.

A challenge outside SEBI's control is strengthening criminal enforcement. In the past SEBI has been successful in arranging for dedicated/designated criminal court tribunals to hear cases related to collective investment schemes, and the authorities could explore whether such type of arrangement could be extended to all types of securities offenses.¹⁴

Insurance

41. **The insurance regulatory and supervisory infrastructure in India is relatively well developed.** IRDA has a clear mandate and is a leader among emerging markets in areas such as licensing, consumer protection, market oversight, and transparency. The supervisory system is well organized but IRDA needs to strengthen its capacity in order to introduce a modern corrective action regime based on a risk-based approach to capital management. A number of deficiencies, including prudential matters, intervention tools, and the

¹³ The new Company Bill placed before Parliament contains provisions for the establishment of an independent agency, the National Financial Reporting Authority, to oversee the function of auditors.

¹⁴ The new Company Bill contains provisions for the establishment of special courts, for the purpose of providing speedy trial of offences.

independence of the regulator are addressed in the proposed 2008 Insurance Law (Amendment) Bill, which should be submitted to Parliament and enacted expeditiously.

42. **The application of prudential requirements needs to become less reliant on informal arrangements with appointed actuaries.** Fixed income securities are valued at amortized cost regardless of the underlying market value. In a high interest rate environment this may result in assets being valued above market price, a practice expressly prohibited by the Insurance Act. In the case of life insurers, the actuarial profession has been able to compensate by adjusting the discount rate when determining policy liabilities, but the practice should be consistent with official regulation. Relevant actuarial standards should be produced by the newly formed Actuarial Standards Board. There should be a plan to introduce specialized certification of actuaries, particularly for non-life claims.

43. **Intervention tools need to be expanded.** The enforcement actions and sanctions open to IRDA tend to be light (negligible fines) or very heavy (suspension or cancellation of registration, amalgamation, winding up, etc.). Fines have not been adjusted for decades, and need to be brought up to current values. IRDA has coped well in this environment by adopting a name and shame approach; however, it is desirable that its formal enforcement and sanctions toolkit be expanded via passage of the amending insurance legislation.

44. **The *de jure* independence of the regulator needs to be strengthened.** In law, the Ministry of Finance (MoF) has the authority to appoint an administrator and take over the role of the supervisor, which in theory, if not practice, point to a critical lack of independence.

B. Cross-sectoral and System-wide Oversight

System-wide oversight

45. **India is a pioneer in the use of macroprudential policy and has made continued efforts to strengthen systemic oversight.** RBI has long-standing experience in the use of macroprudential instruments to counter credit cycles (Box 5). More recent initiatives have focused on strengthening institutional arrangements for regulatory coordination, most notably through the creation of a Financial Stability and Development Council (FSDC) in December 2010. The FSDC mandate covers systemic oversight, regulatory coordination, and financial sector development, literacy, and inclusion. It is chaired by the Minister of Finance and comprises the RBI Governor and the heads of IRDA, SEBI, and PFRDA. A subcommittee chaired by the RBI Governor acts as the operational arm of the FSDC. Two working groups (on financial stability and on financial inclusion and financial literacy) provide a mechanism for coordination among regulators.

The common understanding among the authorities is that the FSDC would play a key role in crisis management, while day-to-day regulatory coordination would be conducted by the subcommittee. This demarcation of responsibilities could be clarified,

notably to support timely action in the event of crisis. Decision-making powers, information exchange arrangements, and reporting lines could be spelled out in detail in a MOU. The interface between RBI's surveillance arrangements, notably the Financial Market Committee, and the FSDC and its subcommittee, could also be further strengthened.

Box 5. India's Experience with Macroprudential Tools

Macroprudential policy is intended to limit systemic risk, which has a time dimension (procyclicality) and a cross-sectional dimension (interconnectedness). India has used several prudential instruments for the specific objective of countering the cyclicality in credit growth. The use of the instruments has a sectoral orientation, i.e., they are largely used to address risks in specific sectors, and the sector-specific approach distinguishes macroprudential policy from monetary policy.

Sectors in which credit growth has been especially rapid are subject to time-varying capital risk weights and provisioning requirements.

- *Capital risk weights* were raised between 2005 and 2008 to counter rapid credit growth in five sectors: capital markets, housing, retail, commercial real estate, and non-deposit taking NBFCs. Some of the risk weights were lowered at the onset of the financial crisis to mitigate the downturn,
- *Sectoral provisioning requirements* were adjusted during the same periods in conjunction with changes in capital risk weights,
- *A loan to value (LTV) cap* was introduced in November 2010 to counter growth in housing loans and house price inflation.

The sector-specific approach can be tailored to address specific types of transactions. For instance, caps on the LTV can be applied according to loan size and the location and value of the property. Calibrating the capital risk weights and provisioning requirements according to developments in specific sectors makes them more precise and may, therefore, entail a lower cost to the economy.

Macroprudential instruments are used in conjunction with, and as a complement to, monetary policy. The sectoral capital risk weights and provisioning requirements were adjusted upwards during a period (September 2004 – August 2008) when the policy interest rate was raised to curb inflation and aggregate demand. Specific measures were introduced in the five sectors displaying particularly rapid credit growth, to reinforce general monetary tightening. The sectoral risk weights and provisioning requirements were adjusted downwards during October 2008 – April 2009, when monetary policy was eased to mitigate the economic downturn.

This combination of monetary policy and macroprudential instruments had a strong effect on the credit cycle. Credit growth in the five affected sectors began to decelerate following the change in the capital risk weights and provisioning requirements, notably in the commercial real estate sector. There is also anecdotal evidence that higher borrowing costs, as a result of higher interest rates and tighter capital risk weights and provisioning requirements, prompted developers and NBFCs to turn to the corporate bond market and to borrow abroad. Hence borrowers were able to circumvent, to some extent, the macroprudential measures. The impact of coordinated policy action is apparent even if the effect of the macroprudential instruments is not easily distinguishable from that of general monetary tightening.

Consolidated supervision of financial conglomerates

46. **There remains scope for strengthening consolidated supervision practices.**

Several steps have been taken to improve consolidated supervision of banking groups and a supervisory program has been initiated to identify and monitor financial conglomerates. Nevertheless, several impediments remain—lead supervisors are unable to order inspections of subsidiaries they do not regulate or carry out transaction testing at such subsidiaries; joint inspections are not conducted nor can lead supervisors obtain copies of inspection reports directly from other regulators. RBI has proposed a legal amendment which would, if enacted, address this set of issues. It would also be beneficial for a single supervisor, such as the RBI, to be designated to oversee all financial conglomerates, regardless of the composition of the underlying subsidiaries (banks, securities firms or insurance companies; which would continue to be supervised by their sector regulator) as this would ensure a consistent approach to the supervision of these emerging and complex entities. The proposed plans to establish a holding company structure that would own subsidiaries of financial conglomerates (see Box 4) would facilitate such an oversight arrangement.

IV. MANAGING RISKS: THE CRISIS TOOLKIT

A. Systemic Liquidity Management

50. **RBI's new liquidity management framework will support its ability to respond to systemic liquidity pressures.** RBI revised the operational framework for monetary policy in early 2011—responding to a movement of the Indian banking system from a position of structural surplus reserve balances to a deficit during the 2008/09 crisis. The aim now is to keep the market in structural deficit, and to guide short-term interest rates to the policy target via regular open market operations. The enhanced approach to liquidity management, which is based on an ample stock of government securities that can be used as collateral, should make it easier to respond to any future liquidity pressures in the market.

51. **The CRR and SLR provide important liquidity protection to banks during times of crisis but impose costs on the financial system.** These requirements raise intermediation costs of bank finance, encourage some disintermediation of the banking system, and stunt the development of financial markets. In particular, a high SLR, and concomitant practice of keeping government securities in held-to-maturity portfolios and restrictions on market repo,¹⁵ hinder the development of the yield curve, weaken the monetary policy transmission mechanism, and leave banks potentially exposed to unmanaged interest rate risk. While international standards for liquidity are still evolving, there would be a benefit from RBI

¹⁵ FIIs cannot participate in the repo market; short positions must be covered via repo; and short positions cannot exceed 0.5 percent of any given security (0.25 percent for off-the-run issues, which are the majority). Certificate of Deposits (CDs) cannot be used in repo transactions.

signaling its intentions to continue to lower the SLR and to bring it into line with emerging prudential liquidity requirements, along with an early easing of some restrictions on repo. These actions would foster capital market development (see Section V.A).

52. **RBI has wide discretion to lend to individual banks, primary dealers, and other economic agents in support of its policy goals**—but there was no need to use these powers during the 2008/09 crisis. In parallel with a reduction in the SLR, it would be important to define the details of this mechanism, including counterparty eligibility, solvency benchmarks, and tenor, interest rates, collateral acceptance, and disclosure policies. SEBI has recently tightened regulation of mutual funds such that they would be less likely to face liquidity pressures than previously. In addition, the authorities should review back-up liquidity plans for financial market intermediaries, notably central counterparties.

B. Crisis Management and Resolution

53. **The law provides RBI a reasonable range of resolution powers for private commercial banks, but there is scope for improvements.** While a special resolution regime for banks is not in place, the current framework enables RBI to charge losses to shareholders and reduce liabilities, and conduct partial carve-outs of assets and liabilities. These actions can be undertaken after imposing a moratorium on the troubled bank. The use of a broader toolkit, including purchase & assumption and bridge bank transactions would require a more explicit mandate to RBI to conduct partial carve-outs. Also, the use of moratoria should be made optional rather than mandatory as the discontinuity in service provision can lead to an unnecessary loss of confidence and destruction of franchise value. The legal framework for public banks is less specific as it primarily addresses resolution from the perspective of public banks as acquirers of troubled banks.

54. **In practice, the resolution powers for private commercial banks are only partially used.** In recent cases troubled banks were transferred to acquirers in their entirety, including the losses accumulated on the troubled bank's balance sheet.¹⁶ Shareholders are thus not necessarily put in a first-loss position, while liability holders' claims on the bank, including depositors, are unaffected. It would be difficult, however, to handle the failure of a large and complex financial institution without resorting to the wider set of resolution powers in the law, as the pool of potential acquirers shrinks with the size of the troubled bank. The transition toward holding company structures should ideally be accompanied by the adoption of resolution planning and policies at the group level, complementing the framework that is available for the individual entities that are part of the group.

¹⁶ The acquiring institution is granted a multiyear grace period over which it can write off the losses.

55. **By contrast, failures occur on a regular basis in urban cooperative banks, in most cases leading to liquidation of the affected cooperative.** Since 2005, a total of 230 urban cooperative banks have been either merged with a stronger institution (95) or liquidated (135). Given the troubled state of many of the (especially smaller) urban cooperative banks, RBI has stepped up efforts to improve the sector and promote consolidation, although significant challenges remain. Contrary to the commercial banks, liability holders do incur losses, while depositors are compensated up to the insured amount.

C. Deposit Insurance

56. **The Deposit Insurance and Credit Guarantee Corporation (DICGC) was established in 1962 as a wholly owned subsidiary of RBI.** As a pay-box, it has no role in bank supervision but it does have a funding role in bank resolution.

57. **Delays in depositor payout undermine the effectiveness of deposit insurance in preventing depositor runs and should be corrected.** A number of difficulties prevent swift compensation to depositors, which on average takes close to a year.

- *Delays in appointing liquidators* can be significant and hamper both depositor payout and asset recovery. One possible solution would be to provide the DICGC with a greater role in the appointment of liquidators. If combined with a proposed new claim management system, the process could be significantly accelerated. DICGC should have an up-to-date “single depositor view” of insured deposits in banks.
- *The practice of set off* also contributes to delays and undermines the effectiveness of deposit insurance in preventing depositor runs. Each depositor account is netted against any bank’s claim on the depositor, which creates uncertainty on the level of protection. Elimination of set off would also allow for a faster determination of individual depositor compensation levels.

58. **Funding mechanisms of the DICGC should be strengthened.** Insured deposits represent 35 percent of total deposits by value. The deposit insurance fund is funded primarily by premiums paid by covered institutions and its reserve ratio was 1.4 percent of insured deposits as of end March 2012. To cover any temporary shortfalls, the DICGC should have access to supplementary back-up funding from RBI or, preferably, the government that is rapidly disbursing. The Act provides for emergency back-up funding from RBI up to INR 50 million, an amount that appears inadequate in the present context.

V. BROADENING MARKETS AND SERVICES

A. Capital Markets Development

59. **The authorities have taken a number of important steps recently to promote corporate bond market development.** Various high-level committees were created to provide a roadmap for reform,¹⁷ and significant effort has been made to improve the primary and secondary markets through, inter-alia: (i) simplifying listing and disclosure norms for public and private placement of bonds; (ii) improving secondary market trade reporting and dissemination; (iii) improving clearing and settlement; (iv) eliminating tax deduction at source for listed corporate bonds for Indian residents; (v) introducing uniform day count convention for listed bonds; (vi) introducing RBI guidelines for bilateral corporate bond repos; and (vii) promoting greater foreign participation through enhanced limits for corporate bond investment and reduction of withholding tax for infrastructure fund investments.

60. **Further measures would be desirable to lift constraints in the market:**

- *Further development of derivatives markets* should spur growth in the bond market by enabling investors to better manage risks. The volume, pricing, and use of such derivatives should be carefully monitored to avoid the problems recently experienced by financial institutions in some advanced markets. A number of exchange traded derivative products were introduced since 2008, including currency futures and options, and interest rate futures (although the latter are not liquid).¹⁸ Guidelines for credit default swaps were issued by RBI in May 2011 and became effective in October 2011.
- On the demand side, some *relaxation of the investment regulations and policies* of pension funds and insurers should be considered (see Section II.B). The proposed investment guidelines for EPFO would permit limited investment in private sector corporate bonds and equities. While IRDA guidelines permit limited corporate bond investments, essentially only AA or AAA bonds are allowed.
- *Continued gradual liberalization of limits on bond market investment by FIIs* would also increase demand for corporate bonds. FIIs have a small presence in the corporate bond market (5 percent of holdings). The 2011 budget raised the FII corporate bond

¹⁷ Report of the High Level Expert Committee on Corporate Bonds and Securitization (Patil Committee 2005); Report of the Committee on Infrastructure Financing (Parekh Committee 2007); Report of the High Powered Expert Committee on Making Mumbai and International Finance Centre (Mistry Committee 2007); and Report of the Committee on Financial Sector Reforms (Rajan Committee 2009).

¹⁸ Beginning in 2012, banks will also be able to offer some structured derivative products, provided they do not contain underlying derivatives.

limit to US\$40 billion, of which US\$25 billion is available solely for investment in infrastructure bonds. The increased allocation contains further restrictions, including a 1-year lock-in period. The government also reduced the withholding tax to 5 percent for infrastructure-related investments. A less restrictive regime is needed to encourage foreign participation in the bond market more generally.

- Finally, *improvements to the insolvency regime* are required (see Section VI.B), notably with respect to the accountability of issuers and investor protection. While steps have been taken by SEBI to protect bond investor rights through improved regulation of debenture trustees, low fees and an ‘issuer pays’ model have not achieved the desired objective of providing adequate protection for investors.

B. Infrastructure Financing

61. **India has made significant progress in mobilizing private investment for infrastructure.** Infrastructure finance nearly doubled in the last decade and is expected to grow further under the government’s 12th Plan (2012/17), which calls for investments in the sector of about US\$1 trillion, with a contribution from the private sector of at least half.

62. **Meeting these ambitious targets will be challenging.** Deteriorating global and domestic economic conditions, coupled with high inflation and rising domestic interest rates could raise project financing costs, putting pressure on the economics of existing projects and reducing the potential returns of future projects. Commercial banks have contributed the lion’s share of private infrastructure financing to date but cannot continue to do so prudently. Shallow domestic corporate bond markets and restrictions on investments by institutional investors limit the range of alternative local currency financing options. Indian sponsors are also restricted in their ability to tap international debt markets—in part because of restrictions on external commercial borrowing, but also because international lenders are uncomfortable with the nonfinancial risks associated with Indian projects (contract enforceability, political interference in tariff-setting, delays in approvals). These problems need to be tackled, but in the short-term may be partially addressed through a sharing of risk between private and public sector sponsors, and appropriately designed credit enhancement mechanisms.

63. **Major changes are needed in the way banks appraise and finance projects.** Banks need to ensure that project sponsors hedge currency and interest rate exposures as much as possible, a practice that is not currently standard in the Indian project finance market. To reduce risk concentrations, alleviate their growing asset-liability mismatch, and provide additional headroom for infrastructure lending, banks should also consider adopting what has been referred to as the ‘originate-carry-refinance’ model. Under this model, banks would charge higher fees and spreads during the construction phase, but would arrange or pre-arrange the refinancing of project loans with long-term institutional investors or capital markets once projects have been commissioned and the risk profile has fallen. RBI could encourage this by accelerating the reduction in single borrower limits for infrastructure.

64. **The government has taken a number of recent initiatives to expand private investment in infrastructure, but their impact has not yet been felt.** In addition to increasing FII debt limits for infrastructure, these include:

- The *India Infrastructure Finance Company (IIFCL)*, a specialized state-owned NBFC, was established in 2010 to provide senior and subordinated loans, long-term take-out financing, and other forms of credit enhancement, but to date it has acted as a conventional senior lender. IIFCL's take-out finance facility provides an avenue for banks to refinance seasoned infrastructure loans, but banks have had little appetite to make use of this facility. This is due at least in part to banks' practice of applying undifferentiated pricing over the life of the project loans, which gives them little incentive to refinance assets once the risk has diminished.
- A framework for the establishment of *Infrastructure Debt Funds (IDFs)* has been developed, with RBI's guidelines allowing for IDFs to be set up as NBFCs and SEBI's guidelines as mutual funds. The former is intended to provide otherwise risk-averse institutional investors with access to long-term, post-construction exposure to high quality projects. While it is likely that one or more such funds will be established, unless Indian banks are willing to sell assets post-construction, it is unlikely that IDFs will have a sufficient supply of assets to purchase.

VI. STRENGTHENING THE FINANCIAL INFRASTRUCTURE

A. Securities and Derivatives Clearing and Settlement Systems

65. **The National Payments System has undergone a major reform over the last two decades.** The securities and derivatives clearing and settlement systems are comprehensive, with prudent risk management frameworks, high operational reliability, and generally effective regulation and oversight. The Real-Time Gross Settlement (RTGS) system, implemented in 2004, has provided an effective system for the settlement of large value transactions including for the cash leg of government securities transactions. A detailed assessment of the commodity derivatives clearing and settlement systems in the immediate future would be highly desirable given the volumes and growth of this market.

66. **The legal framework for securities and derivatives clearing and settlement systems in India is well established but some room for improvement remains.** In particular: (i) legislation should be expanded to cover finality and netting for stock exchange transactions; (ii) liquidity risk management by CCP should be strengthened; (iii) while the operational reliability of the systems is high, the readiness to respond to a crisis would benefit from the establishment and regular testing of detailed crisis management and default procedures; and (iv) the authorities should consider replacing the commercial bank settlement model with the central bank settlement model in the medium term.

67. **Securities and derivatives market regulators and overseers should cooperate in a formalized way to ensure the overall safety and efficiency of the market infrastructure.**

The securities market infrastructure in India is segmented by product type, which might raise concerns on the overall efficiency of the capital market. Securities are traded, cleared, and settled through different entities subject to different legal frameworks and regulators (Appendix Table 5). Cooperation between RBI and SEBI on payment and settlement systems would benefit from formal arrangements for information sharing and policy coordination. Inter-regulatory discussions on payment and settlement issues are also expected to take place in the FSDC technical committee.

B. Insolvency Regime

68. **The existing framework for insolvency and secured transactions has significant shortcomings.** The general insolvency framework affords inadequate protection to creditors, and does not offer a viable rehabilitation regime for distressed companies. General corporate insolvency is administered by the courts, and the proceedings are plagued with procedural delays, which erode the value of the company. Many attempts have been made to modernize the law and the institutions that implement insolvency, without success. Subsequent legislation has provided banks access to more efficient out-of-court mechanisms, though these too present shortcomings. The principal tools are Debt Recovery Tribunals (DRTs) and the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interests Act, 2002 (SARFAESI).

- The DRTs are subject to significant delays. DRTs are for unsecured debts, as secured claims are generally pursued under SARFAESI. They are subject to delays of up to four years, and operate procedurally much the way that inefficient courts operate in enforcing debt—resulting in unpredictable and nontransparent processes.
- SARFAESI has significantly improved creditor protections for secured bank lenders, but its application is limited to banks and Housing Finance Companies registered with NHB. Restrictions on how quickly debt can be enforced cause delays; as a result, debtor business is often broken up and sold, instead of being sold as going concern.

69. **Access to credit is further constrained by a complex and difficult system for registering security interests.** SARFAESI's Central Registry does not operate as an effective, efficient notice of security interest. There are many disparate registries (Registrar of Companies, Patents Registry, Trademarks Registry, Motor Vehicle Registry, and Industrial Design Registry). The Central Registry does not replace these other registries. Moreover, registration at the Central Registry is not dispositive; a third party whose interest is registered in one of the other registries maintains his rights to the collateral. Thus a creditor must search several registries to ensure his rights.

70. **Sole proprietorships, the majority of businesses in India, face an inadequate insolvency framework.** The laws governing insolvency for corporate, nonregistered businesses, fail to allow sole proprietors to make a proposal to creditors, and are punitive rather than rehabilitative. A unified insolvency law that addressed unincorporated businesses would be the best solution, but barring that possibility a more comprehensive “personal” insolvency law should be enacted to respond to the needs of small businesses.

C. Market Integrity¹⁹

71. **Since mid-2009, India has increased its focus on money laundering and the use of anti-money laundering provisions.** However, some important legal issues, such as the threshold condition for domestic predicate offences, remain unresolved. Effectiveness concerns are primarily raised by the absence of any money laundering convictions.

72. **India’s serious commitment to combating terrorism in all its forms must be acknowledged.** From a law enforcement perspective, this commitment is reflected in an active pursuit of the financial aspects of terrorism. At the prosecutorial level, an appropriate focus on the financing of terrorism can be observed. However, this effort has not yet been convincingly followed up by convictions and firm case law.

73. **India has progressively expanded and strengthened its preventive measures for the financial sector, which now apply to all but one of the financial activities required to be covered under the FATF standards.** However, several preventive provisions need to be brought more closely into line with the FATF standards, and overall, more time is needed before all requirements are substantially implemented. The supervisory regime for financial institutions is generally sound, but its effectiveness with regard to Anti-Money Laundering and combating the Financing of Terrorism (AML/CFT) has not yet been sufficiently demonstrated. In addition, the sanctions that supervisors have applied for AML/CFT deficiencies cannot be considered to be effective, dissuasive or proportionate.

74. **Key recommendations include the need to:**

- address the technical shortcomings in the criminalization of both money laundering and terrorist financing and in the domestic framework of confiscation and provisional measures;
- broaden the customer due diligence obligations with clear and specific measures to enhance the current requirements regarding beneficial ownership;

¹⁹ The report on the Observance of Standards and Codes for the *FATF 40 Recommendations for Anti-Money Laundering and 9 Special Recommendations Combating the Financing of Terrorism* was prepared by the Financial Action Task Force (FATF) and distributed to the IMF Executive Board in December 2010.

- improve the reliability of identification documents, the use of pooled accounts, politically exposed persons, and non-face-to-face business;
- ensure that India Post, which recently became subject to the Prevention of Money Laundering Act, effectively implements the AML/CFT requirements;
- enhance the effectiveness of the suspicious transactions reporting regime;
- enhance the effectiveness of the financial sector supervisory regime and ensure that India Post is adequately supervised;
- ensure that the competent supervisory authorities make changes to their sanctioning regimes to allow for effective, proportionate and dissuasive sanctions for failures to comply with AML/CFT requirements; and
- extend the Prevention of Money Laundering Act to the full range of designated nonfinancial businesses and professions, and ensure that they are effectively regulated and supervised.

APPENDIX I. RISK ASSESSMENT MATRIX

Nature/Source of Main Threats	Likelihood of Realization of Threat (in the next two years)	Expected Impact on Financial Stability if Threat is Realized
<p>Continued high or accelerating inflation</p>	<p><i>Staff assessment: MEDIUM</i></p> <p>Inflation has started to decline. However, there are still significant inflation pressures, including structural factors that suggest that inflation risks are still present.</p>	<p><i>Staff assessment: MEDIUM to HIGH</i></p> <p>Continued high inflation could limit the RBI's room in lowering policy rates and hence its ability to counter the economic slowdown. This macro backdrop could affect growth prospects (though growth would still likely remain above 6 percent) and credit quality.</p> <p>Higher interest rates would exacerbate the impact of maturity mismatches from long-term investments in infrastructure.</p>
<p>Slowdown in economic growth fueled by domestic or external shocks</p>	<p><i>Staff assessment: MEDIUM</i></p> <p>India's economy is relatively well balanced between domestic and external demand, and growth shocks could come from (i) political uncertainty within India or its neighbors; (ii) a downturn in investment due to a deteriorating business environment; (iii) failure to achieve fiscal consolidation; or (iv) an external shock caused by global slowdown.</p>	<p><i>Staff assessment: MEDIUM to HIGH</i></p> <p>Slower GDP growth would reduce credit demand and hence net interest margins, and possibly impact fee and trading income.</p> <p>A weaker economy would dampen corporate and small business profits and employment, and undermine credit quality.</p>
<p>Sharp reversal of capital flows</p>	<p><i>Staff assessment: MEDIUM</i></p> <p>The risk of sharp and unpredictable reversals remains, which could be driven by a global rise in risk aversion and a continued slowdown in advanced markets; or domestic shocks, such as election uncertainty or a loss of credibility by the central bank that unmoored inflation expectations.</p>	<p><i>Staff assessment: MEDIUM to HIGH</i></p> <p>While the impact of the reversal of capital flows remains medium at present, it may become more pronounced in the medium term as financial institutions and nonfinancial corporations become more directly or indirectly exposed to foreign markets. Heightened volatility emanating from sudden outflows could put pressure on systemic liquidity, and affect banks and, potentially, other financial intermediaries.</p> <p>The impact of the reversal on exchange rates could be significant though banks' exposure to foreign exchange risk remains limited.</p>
<p>Decline in real estate prices</p>	<p><i>Staff assessment: MEDIUM</i></p> <p>Rapid growth in lending to real estate has resulted in rising housing prices. An economic downturn or a rise in lending rates (mortgages and construction lending) might cause real estate prices to fall.</p>	<p><i>Staff assessment: MEDIUM</i></p> <p>A decline in real estate prices or increase in credit risk related to property-related credit would undermine asset quality. Additional risks emanate from home loans with an ascending interest rate/ teaser rates.</p>

Appendix Table 3. India: Financial System Structure, 2010

Types of Institutions	No. of Institutions	Total Assets		
		in INR billion	Percent of Total Assets	Percent of GDP
Scheduled Commercial Banks	81	60,251	58.4	77.5
Public Sector Banks	27	44,411	43.1	57.1
Private Sector Banks-Old	15	2,690	2.6	3.5
Private Sector Banks-New	7	8,818	8.6	11.3
Foreign Banks	32	4,332	4.2	5.6
Regional Rural Banks	82	1,507	1.5	1.9
Local Area Banks	6	946	0.9	1.2
Cooperative Credit Institutions	98,425	6,829	6.6	8.8
Urban Cooperative Banks	1,674	2,361	2.3	3.0
Rural Cooperative Credit Institutions	96,751	4,468	4.3	5.7
Non-banking Financial Institutions (NBFIs)	603	9,300	9.0	12.0
Non-banking Financial Companies (NBFCs)	578	6,728	6.5	8.7
- Deposit-taking NBFCs	311	1,093	1.1	1.4
- Non-Deposit-taking NBFCs	267	5,635	5.5	7.2
Financial Institutions 1/	5	2,469	2.4	3.2
Primary Dealers	20	103	0.1	0.1
Insurance Companies 2/ 3/	47	13,920	13.5	17.9
Non-Life Insurance	24	664	0.6	0.9
Life Insurance	23	13,256	12.9	17.0
Provident and Pension Fund		4,243	4.1	5.5
Mutual Funds 2/ 4/	882	6,140	6.0	7.9

Sources: RBI, IRDA, SEBI, WEO, IMF Staff Computations.

1/ comprise specialized and development institutions.

2/ Assets under management (AUM).

3/ Includes general annuity funds.

4/ Number of funds.

Appendix Table 4. India: Financial Soundness Indicators

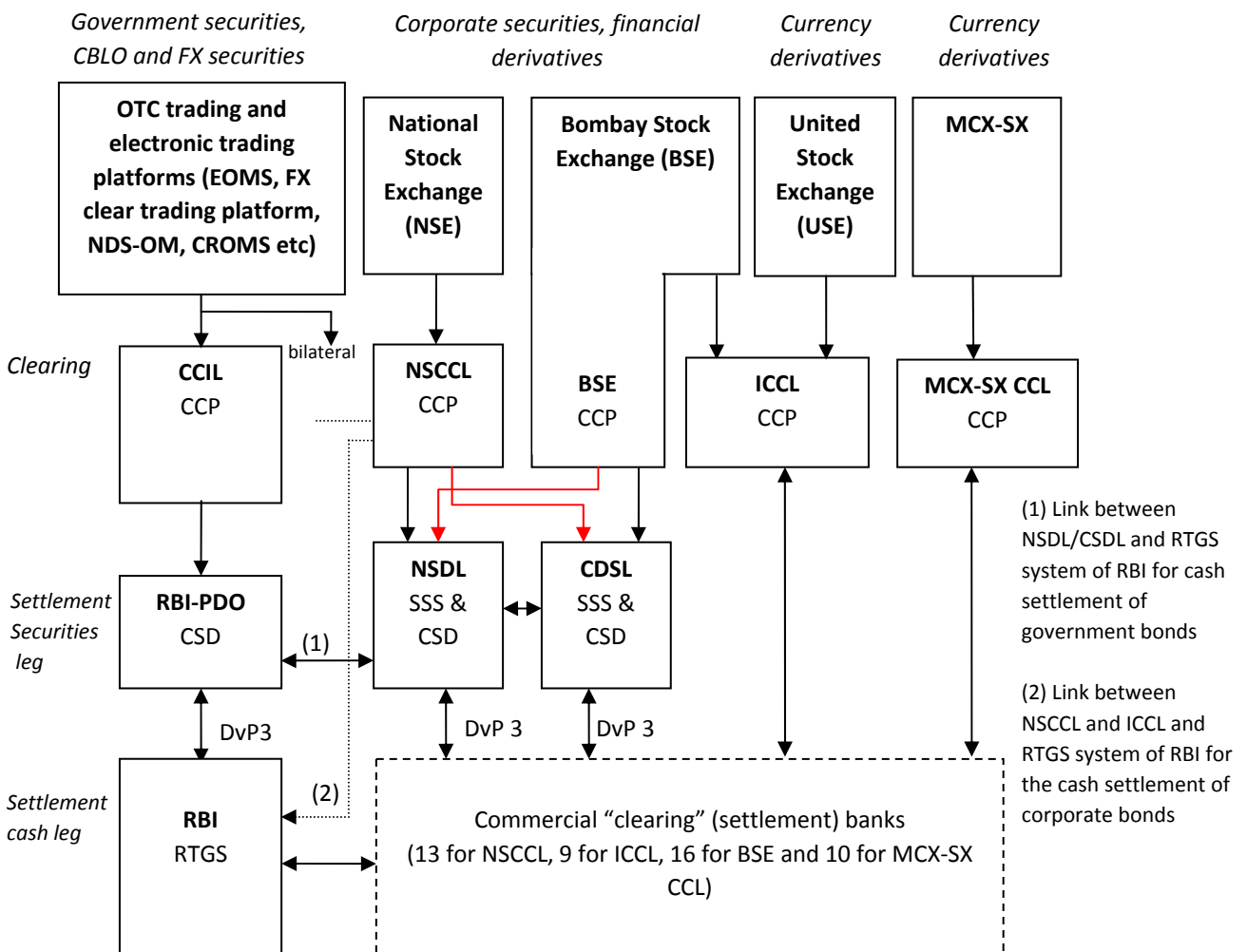
	2006	2007	2008	2009	2010
Risk-weighted capital adequacy ratio (CAR)¹	12.30	12.30	13.00	13.20	13.60
Public sector banks	12.20	12.40	12.50	12.30	12.10
Old Private Sector Banks	11.70	12.10	14.10	14.30	13.80
New Private Sector Banks	12.60	12.00	14.40	15.10	17.30
Foreign banks	13.00	12.40	13.10	15.00	18.10
Net nonperforming loans (percent of outstanding net loans)²	1.20	1.00	1.10	1.10	1.10
Public sector banks	1.30	1.10	1.10	0.90	1.10
Old Private Sector Banks	1.70	1.00	0.70	0.90	0.80
New Private Sector Banks	0.80	1.00	1.40	1.40	1.10
Foreign banks	0.80	0.70	0.80	1.80	1.80
Gross nonperforming loans (percent of outstanding loans)	3.30	2.50	2.40	2.30	2.40
Public sector banks	3.60	2.70	2.30	2.00	2.20
Old Private Sector Banks	4.40	3.10	2.30	2.40	2.30
New Private Sector Banks	1.70	1.90	2.90	3.10	2.90
Foreign banks	1.90	1.80	1.90	3.80	4.30
Net profit (+)/loss (-) of commercial banks³	0.90	0.90	1.00	1.00	0.90
Public sector banks	0.80	0.80	0.90	0.90	0.90
Old Private Sector Banks	0.60	0.70	1.00	1.00	0.90
New Private Sector Banks	1.00	0.90	1.00	1.10	1.20
Foreign banks	1.50	1.70	1.80	1.70	1.10
Ratio of net interest income to total assets (Net Interest Margin)⁴	3.04	2.99	2.58	2.62	2.55
Interest Income to Total Assets	7.21	7.59	7.92	8.12	7.38
Non-interest income to Total Assets	1.38	1.25	1.55	1.57	1.39
Balance sheet structure of all scheduled banks					
Loan/deposit ratio	70.10	73.50	74.60	73.90	73.60
Investment in government securities/deposit ratio	31.90	28.00	27.90	28.70	28.80
Lending to Priority Sector (in percent of Total Lending)	33.81	33.08	31.55	30.30	31.21
Lending to sensitive sectors (in percent of loans and advances)					
Capital market	1.50	1.80	2.50	1.80	1.90
- Public sector banks	1.22	1.33	1.70	1.50	1.40
- Old Private sector banks	1.26	1.52	2.30	1.80	1.40
- New Private sector banks	2.30	2.19	5.60	3.10	4.50
- Foreign banks	2.56	2.44	3.30	3.60	4.00
Real estate	17.20	18.80	18.40	17.50	16.60
- Public sector banks	14.29	15.14	15.80	14.80	14.30
- Old Private sector banks	14.57	16.62	16.70	17.30	14.80
- New Private sector banks	29.12	32.34	28.90	27.60	26.10
- Foreign banks	25.58	26.26	23.20	27.30	28.40
Commodities	0.09	0.11	0.10	0.00	0.00
- Public sector banks	0.11	0.12	0.00	0.00	0.00
- Old Private sector banks	0.19	0.54	0.70	0.70	0.60
- New Private sector banks	0.00	0.00	0.00	0.00	0.00
- Foreign banks	0.03	0.01	0.10	0.00	0.00
Regional Rural Banks (RRBs)					
Gross nonperforming loans (percent of outstanding loans)	8.57	7.30	6.60	3.66	4.14
Total Capital-to-Total Assets (in percent)	4.98	4.82	4.76	4.61	4.49
Net profit (+)/loss (-) ³	1.04	0.59	1.11	1.00	1.10
Loss Making RRBs-to-All RRBs (percent)	16.54	15.63	8.89	6.98	3.66
Urban Cooperative Banks (UCBs)					
Gross nonperforming loans (percent of outstanding loans)	18.90	18.30	16.40	13.37	11.54
Total Capital-to-Total Assets (in percent)	2.31	2.46	2.60	2.56	2.39
Net profit (+)/loss (-) ³	0.34	0.01	0.01	0.80	0.70
Rural Cooperative Banks (RCBs)					
Gross nonperforming loans (percent of outstanding loans)	23.80	19.80	25.90	29.70	N.A.
Total Capital-to-Total Assets (in percent)	14.76	14.65	13.90	13.95	N.A.
Net profit (+)/loss (-) ³	2.70	0.00	-1.03	0.09	N.A.
Non-banking Financial Companies-Deposit Taking (NBFC-D)					
Gross nonperforming loans (percent of outstanding loans)	3.60	2.20	2.10	2.00	1.30
Total Capital-to-Total Assets (in percent)	19.70	16.74	16.89	17.15	16.65
Net profit (+)/loss (-) ³	1.50	1.04	2.86	2.69	1.50
Non-banking Financial Companies-Non Deposit Taking, Systemically Important (NBFC-ND-SI)					
Gross nonperforming loans (percent of outstanding loans)	4.30	2.30	2.30	2.90	3.00
Total Capital-to-Total Assets (in percent)	23.24	23.02	26.94	27.08	25.83
Net profit (+)/loss (-) ³	1.72	2.35	2.13	2.20	1.90

Source: Annual Report, and Trends and Progress of Banking in India.

1. Basel I definition, slightly higher under Basel II definition.
2. Gross nonperforming loans less provisions.
3. In percent of total assets.
4. All SCBs

Figure 8. India: Infrastructure of Securities Markets

The main securities and derivatives settlement systems in India are: (i) The Clearing Corporation of India (CCIL), which acts as the CCP for government securities, money market, and foreign exchange instruments; (ii) the Public Debt Office (PDO) of RBI, which acts as the Central Securities Depository (CSD) for government securities; (iii) the National Securities Clearing Corporation (NSCCL), the BSE, and the Indian Clearing Corporation Limited (ICCL), which act as CCPs for equity and equity derivatives traded on the NSE and BSE; (iv) the NSCCL, MCX-SX Clearing Corporation Limited (MCX-SX CCL), and ICCL, which act as CCPs for currency derivatives traded on the NSE, MCX-Stock Exchange (MCX-SX) and United Stock Exchange (USE); and (v) the National Securities Depository (NSDL) and Central Depository Services (CDSL), which act as CSDs for corporate securities traded on the NSE and BSE respectively.



Source: National authorities.

ANNEXES: OBSERVANCE OF FINANCIAL SECTOR STANDARDS AND CODES SUMMARY ASSESSMENTS

This Annex contains the summary assessments of India's observance of financial sector standards and codes. These assessments help identify the main strengths of the supervisory, regulatory and market infrastructure framework in managing potential risks and vulnerabilities in the financial system. They also point to areas that need strengthening and further reform.

These summaries are based on detailed assessments of the following international standards:

- Basel Core Principles (BCP) for Effective Banking Supervision – by William Rutledge (external expert) and Katia D'Hulster (World Bank).
- IAIS Insurance Core Principles (ICP) – by Rodney Lester (World Bank).
- IOSCO Principles and Objectives of Securities Regulation – by Ana Carvajal (IMF).
- CPSS-IOSCO Recommendations for Securities Settlement Systems (RSSS) and for Central Counterparties (RCCP) by Massimo Cirasino, supported by Frouke Wendt and Harish Natarajan (all World Bank).

ANNEX I. COMPLIANCE WITH THE BASEL CORE PRINCIPLES FOR EFFECTIVE BANKING SUPERVISION

A. Introduction

75. **RBI is to be commended for its tightly controlled regulatory and supervisory regime, consisting of higher than minimum capital requirements; frequent, hands-on, and comprehensive onsite inspections; a conservative liquidity risk policy; and restrictions on banks' capacity to take on more volatile exposures.** The Indian banking system remained largely stable during the global financial crisis. Since then, the government and RBI have taken additional measures to enhance the soundness and resilience of the banking system, such as the establishment of the FSDC, the implementation of a countercyclical provisioning regime, and the development of a roadmap for the introduction of a holding company structure. Despite this strong performance, several gaps and constraints in the implementation of the regulatory and supervision framework remain. RBI is seized of these gaps and is taking various actions to address them, including through proposed changes in the banking law; by moving ahead on putting in place more MOUs to address some of the concerns on home/host coordination; and taking initial steps toward a more risk-based supervision approach. RBI has also launched an initiative to consider modifications of elements of the supervisory process for the largest banking groups.

B. Information and Methodology Used for the Assessment

76. **This assessment of the current state of compliance with the BCPs in India has been undertaken as part of the joint IMF-World Bank FSAP.** The assessment was conducted from June 15 till July 1, 2011. It reflects the banking supervision practices of RBI as of the end of May 2011 and covers only commercial banks. The assessment is based on several sources: (i) a complete self-assessment prepared by RBI in 2011 as well as in 2009;²⁰ (ii) detailed interviews with RBI staff at the head office as well as the regional office in Delhi; (iii) a review of laws, regulations, and other documentation on the supervisory framework and on the structure and development of the Indian financial sector; (iv) a review of a number of onsite and offsite examination reports and correspondence with banking companies and auditors; and (v) meetings with the MoF, public banks, private banks, foreign banks, an external auditor, and the banking association.

77. **The assessment was performed in accordance with the guidelines set out in the Core Principles (CPs) Methodology.**²¹ It assessed compliance with both the “essential” and the “additional” criteria, but the ratings assigned were based on compliance with the “essential” criteria only. The Methodology requires that the assessment be based on the legal and other documentary evidence in combination with the work of the supervisory authority as well as its implementation in the banking sector. The assessment of compliance with the CPs is not, and is not intended to be, an exact science. Banking systems differ from one country to the next, as do their domestic circumstances. Furthermore, banking activities are changing rapidly around the world, and theories, policies, and best practices of supervision are swiftly evolving. Nevertheless, it is internationally acknowledged that the CPs set minimum standards.

78. **This assessment is based solely on the laws, supervisory requirements, and practices that were in place at the time it was conducted.** However, where applicable the assessors made note of regulatory and supervisory initiatives that have yet to be completed or implemented. The assessment team enjoyed excellent cooperation with its counterparts and, within the time available to perform their work, reviewed all the information provided. The assessors thank the authorities for their openness and active involvement in the process.

²⁰ The Government of India, in consultation with RBI, undertook a comprehensive self-assessment of the financial sector and for that purpose constituted the Committee on Financial Sector Assessment in September 2006. A comprehensive BCP self-assessment was finalized, peer reviewed, and published in 2009.

²¹ Issued by the Basel Committee on Banking Supervision, October 2006.

C. Preconditions for Effective Banking Supervision²²

79. **RBI is tasked with the regulatory oversight of the payment and settlement systems in the country.** The smooth functioning of the payment and settlement systems is a pre-requisite for the stability of the financial system. The legal framework for the oversight role of RBI is provided by the Payment and Settlement Systems Act, 2007 and the Payment and Settlement System Regulations. RBI has a sound and well-founded legal basis for regulation and oversight of payment and settlement systems. The Act clearly defines settlement finality and provides an explicit legal basis for multilateral netting. The findings of the 2009 Committee on Payment and Settlement Systems (CPSS) Core Principles for Systemically Important Payment Systems self-assessment are that the existing payment system operates cheaply and efficiently, with minimal systemic risk, though several suggestions were made to further strengthen its efficiency.

80. **Despite numerous recent legislative changes, significant weaknesses in the insolvency framework remain.** Insolvency is governed by a multiplicity of laws in India and the process of registering security interests remains difficult. For creditors seeking to recover debts from borrowers, the primary tools are the DRTs and SARFAESI, both of which present significant limitations. Both tools result in relatively low returns for creditors and long time periods needed for liquidation. Delay in the recovery proceedings result in a slow-down of credit growth and the drying up of funding for creditworthy borrowers, which prevents its proper utilization and recycling.

81. **The accounting profession appears to be well established and convergence with the International Financial Reporting Standards (IFRS) is planned for 2013.** The Institute of Chartered Accountants of India (ICAI) sets the accounting standards but RBI can, in agreement with ICAI, require specific carve-outs or modifications for commercial banks. This has been done in the area of provisioning and disclosure. RBI is in the process of preparing prudential guidelines for alignment of Indian accounting standards with international accounting standards by 2013. India is one of the earliest countries to have adopted International Standards on Auditing but it needs to take some proactive steps in implementing them more effectively. The functioning of the Quality Review Board should start at the earliest and steps need to be taken to accelerate the process of making the Board of Discipline and Disciplinary Committee functional. The Quality Review Board also needs to play a more proactive role as an independent oversight body for the auditing profession in India. Finally, there is a need to give functional independence to Auditing and Assurance Standards Board.

²² An overview of the Institutional Setting and Market Structure is in the main body of this report.

82. **The legislative framework for AML/CFT has been set out in the Prevention of Money Laundering Act, 2002.** The respective regulators have issued guidelines for entities regulated by them. A number of initiatives have been taken by various regulators in the financial sector, such as issuance of guidelines for submission of currency transaction reports and suspicious transaction reports to the Financial Intelligence Unit and preservation of records as well as guidelines on wire transfers to banks. Major areas where action needs to be taken to further strengthen AML/CFT practices and align them with international standards are the effective implementation of record-keeping requirements and a robust regime for submission of suspicious transactions reports.

83. **Listed companies are subject to a modern continuous disclosure regime, and banks are subject to specific disclosure requirements that include publication of their annual reports.** RBI prescribes key elements to be disclosed, including the entities' governance and risk management arrangements, as well as audited financial statements. RBI also publishes financial statement information on the industry. There is a need for strengthening the disclosure mechanism to bring about greater transparency in ownership structures and stringent penal action needs to be taken where nontransparent practices are unearthed. The implementation of IFRS in India is generally expected to further reinforce effective market discipline.

84. **RBI has broad and strong lender of last resort powers, which are under review in light of the lessons from the global financial crisis.** Under section 17 and 18 of the RBI Act ('war-time' powers) RBI has wide discretion to lend to economic agents in support of its policy goals. In this respect, RBI has strong powers and a wide variety of instruments to meet crisis situations. The existing instruments are considered adequate and RBI does not encourage a system of providing, *ex ante*, any assurance about its emergency support.

85. **A deposit insurance system is in place.** The DICGC, a wholly owned subsidiary of RBI, covers all commercial banks, including local area banks and regional rural banks in all the states and union territories.

86. **The governance arrangements for domestic crisis management are being strengthened.** The post-crisis focus on establishing an institutional mechanism for coordination among regulators and the government has culminated in the establishment in December 2010 of the FSDC and its subcommittee. This structure attempts to strike a balance between the sovereign's objective of ensuring financial stability to reduce the probability of a crisis and the operational arrangements involving the central bank and the other regulators. While the subcommittee is expected to evolve as a more active, hands-on body for financial stability in normal times, the FSDC would have a broad oversight and will assume a central role in crisis times. While the governance structure has been agreed upon, contingency plans and action plans are not yet established.

D. Main Findings

Objectives, independence, powers, transparency and cooperation (CP 1)

87. **The independence of RBI is not enshrined in the law and there are some legal provisions that could seriously undermine the independence from the government.** In practice, however, the assessors have not come across evidence of government or industry interference. Legal provisions in the Banking Regulation Law and the RBI Act allow the central government to give directions to RBI, require it to perform inspections, overrule decisions, and supersede the Board of RBI. Although these provisions have never been used, it would be beneficial to remove them from the law so as to provide greater legal certainty. Finally, RBI does not have the power to disempower a public bank from carrying on banking activities. The reasons for the removal of the RBI governor are not specified in the law. Although there have been no instances where the governor has been dismissed without a valid reason and the rules of natural justice apply, the explicit specification of the reasons for dismissal in the law would be better aligned with good international practice. The governor is also not appointed for a minimum term but for a maximum term with the possibility of reappointment.

88. **In public banks, which make up a major part of the financial system, an RBI representative still acts as a director on the Board.** In practice, this representative is a current employee from RBI from a department other than banking supervision. It appears that this person takes on an active role in Board discussions and is sometimes implicitly relied upon to ensure regulatory compliance. This provision has the potential to blur the distinction between RBI's legal powers as a banking supervisor and its involvement in actively managing a bank. Hence, at a minimum, greater clarity should be provided to banks on the limitations of the role.

89. **Legal protection for bank supervisors is in place and as a matter of practice the employees' costs of defending actions made while discharging their duties in good faith are borne by RBI.** Some enhancements could be made to the current arrangements. Ideally, the Act should specifically state that the legal protection provided to RBI employees is not limited in time (i.e., protection is beyond the termination of appointment or employment). Also, at a minimum, it is necessary that protection against incurring the costs of defending the actions of supervisors is stated clearly and explicitly (at least at the level of internal procedures), including the financing of any expenses since the start of the legal proceedings.

90. **RBI has entered into MOUs with foreign supervisory authorities and has received approval from the central government for this purpose.** It does, however, lack extensive formal or informal supervisory information sharing arrangements. Given the large and growing overseas activities of Indian banks in many foreign jurisdictions, including some unstable and high-risk countries, the absence of arrangements for supervisory information sharing should be addressed as soon as possible. RBI also does not have direct

access to call for information for any entity in the banking group. The proposed amendment to Section 29A of the Banking Regulation Act under the Banking Law Amendment Bill 2011 is expected to remedy this gap.

Licensing and structure (CPs 2–5)

91. **India has a sound framework for granting banking licenses and for overseeing prospective ownership changes and intended expansion of banks.** There is a clear line of demarcation between banks and nonbanks, and a well defined set of activities that banks can engage in directly or indirectly. Improvement opportunities exist in aspects of controlling foreign bank entry and Indian bank expansion overseas, as well as ensuring in the licensing process that strong risk management programs will be implemented by new banks.

Prudential regulation and requirements (CPs 6–18)

92. **RBI has set prudent and appropriate minimum capital adequacy requirements and has defined components of capital in accordance with internationally agreed guidelines.** That said, many challenges remain for migration to the Basel II advanced approaches. Most relate to constraints on data, tools, and methodologies and the required skills for the quantification and modeling of risks as well as the validation of these models. RBI will also have to consider how to address a range of practical implementation issues consistently, and how supervisory policies and practices may have to be enhanced for effective supervision of banks applying the Basel II advanced models on an ongoing basis.

93. **The assessors identified several other areas for strengthening prudential regulation.** One relates to the establishment of a requirement for periodic and rigorous risk model review and validation by banks, even for risk models that are not used as input for regulatory capital purposes. There is also a need to ensure that prudential guidance is issued and applied to the consolidated banking group rather than just the bank.

94. **The prudential framework in India is characterized by concentration limits that are significantly higher than international best practice and a too general definition of connected counterparties.** The default of a borrower or a group of connected borrowers can cause a serious loss to a banking group. The current large exposure limit is a maximum of 55 percent of a banking groups' capital. The assessors also recommend that more guidance and more frequent and detailed onsite verification of the criteria for the determination of "connected exposures" be required. This could take the form of a broadening of the guiding principles, for example by including cross-guarantees between entities or financial interdependency that result in the entities becoming one single risk.

95. **Some other areas for strengthening the prudential framework were identified.** These include the definition of related parties as well the requirements for arm's length transactions. Furthermore, a formal legal or regulatory requirement to inform RBI immediately of any adverse developments in operational risk should be introduced. The

internal control framework in banks can be enhanced by ensuring that updates on developments affecting the fit and proper test for existing directors are received as well as ensuring a stronger focus in the annual financial inspection process on assessing the quantity of people and skill of people in risk management and control functions.

Methods of ongoing banking supervision (CPs 19–21)

96. **RBI supervises the direct activities of banks with a well defined set of onsite supervisory practices, extensive regulatory reporting, and improving offsite monitoring techniques.** Emerging global practices are being introduced, although more structured interaction between the in-house regulatory areas and field inspectors would enhance the rigor and consistency of new procedures being introduced. RBI largely defers to functional supervisors of nonbank affiliates domestically, and to foreign supervisors of overseas offices and subsidiaries, for hands-on supervision of operations subject to their jurisdiction, although regulatory reports to RBI do cover such operations. There are also challenges in ensuring that appropriately specialized supervisory expertise is developed and maintained, particularly in light of RBI-wide staff rotation policies.

Accounting and disclosure (CP 22)

97. **There is room for improvement in the frequency and intensity of interaction between RBI and external auditors and the access rights to the external auditor’s working papers.** Although RBI does not have direct authority to rescind the appointment of the external auditor, it can and has in the past withdrawn the approval of the appointment of the external auditor.

Corrective and remedial powers of supervisors (CP 23)

98. **RBI has broad discretion in the range of remedial actions it can take to address problem situations, a prompt corrective action regime, and a set of tools to use in problem bank resolution.** This architecture is sound in relation to private banks, but is not generally applicable in practice to dealing with problems in public banks, which make up the largest percentage of the Indian banking market.

Consolidated and cross-border banking supervision (CPs 24–25)

99. **RBI has begun efforts to improve its focus on consolidated supervision and on cross-border banking supervision.** It has established more structured forums for interaction with domestic functional regulators and begun the process of improved information flow and coordination with foreign supervisors by executing MOUs. RBI could broaden its supervisory focus domestically through changing its practices for obtaining information from firms, using a more appropriate construct for evaluating consolidated firms, and interacting more effectively with functional regulators; a proposed statutory amendment would also improve consolidated information access by RBI.

Annex Table 5. India: Summary of Compliance with the Basel Core Principles

Core Principle	Comments
1. Objectives, independence, powers, transparency, and cooperation	
1.2 Independence, accountability and transparency	<p>The reasons for the removal of the head of the supervisory agency during his/her term are not specified in Law. RBI's legal department states that the government would not be able to remove the governor unless there are valid reasons and the rules of natural justice are complied with. The assessors take note of this position, but confirm that in accordance with essential criterion 1 of this core principle, the specification of the reasons in the law as well as the requirement to disclose them is required.</p> <p>Legal provisions in the Banking Regulation Law and the RBI Act allow the central government to give directions to RBI, to require it to perform an inspection, to overrule decisions, and to supersede the central Board of RBI. While in practice these have never been used, it would provide greater certainty regarding the independence of RBI if these provisions were removed and the independence of RBI were formally grounded in the RBI Act. In practice, however, the assessors have not come across evidence of central government interference that would seriously compromise the independence of RBI.</p> <p>With regard to independence of RBI from the industry, the role of the nominee director in the public sector banks blurs the distinction between the legal powers of RBI as a banking supervisor and an active role of RBI appointed staff in the management or compliance function of a bank. Considering that public sector banks represent more than 70 percent of the Indian banking market, the authorities should abolish the role of the nominee director. As a second best or intermediary solution, they should at least consider providing greater clarity to the limitations of the role in order to avoid the appearance of RBI becoming involved in a bank's management.</p> <p>The Banking Regulation Act should allow RBI to enter into MOUs without the agreement of the central government.</p> <p>Strictly speaking, the governor is not appointed for a minimum term but for a maximum term (with the possibility of reappointment).</p> <p>The assessors believe that with the growing complexity and intensity of changes in financial regulation (particularly Basel II and Basel III) as well as the increased complexity and globalization of supervised entities, RBI may wish to reconsider its strict rotation policies so as to ensure its staff can build-up expertise in banking supervision and regulation. For example, rotation areas for supervisors could be narrowed to similar areas of expertise, i.e., limited to the Department of Banking Supervision, the Department of Banking Operations and Development, and other departments involved in the supervision of NBFIs. To address concerns of</p>

Core Principle	Comments
	<p>regulatory capture, rotations of supervisors assigned to specific supervised entities should be implemented.</p> <p>Given the future demands that will be placed on banking supervision staff for the Basel II and Basel III process and the movement to more continuous supervision of the largest banking companies (see also CP 20), staffing levels should be reviewed to ensure the appropriate quantity and quality of staff in these areas.</p>
1.3 Legal framework	
1.4 Legal powers	<p>For the most part, RBI has the requisite authority to address compliance with the banking law through appropriate access to information and staff of banks, and the capacity to address instances of non-compliance by taking of a range of enforcement actions. However, it lacks the authority to disempower a public bank to carry on banking activity.</p>
1.5 Legal protection	<p>It is recommended that the protection for the costs of defending the actions of supervisors should be stated more clearly (preferably in the law and, in the meantime, at least at the level of internal procedures), including the financing of any expenses from the start of the legal proceedings.</p>
1.6 Cooperation	<p>Given the large and growing overseas activities of Indian banks in numerous foreign jurisdictions (including some unstable or high-risk jurisdictions), the absence of formal, or even extensive informal, arrangements for receiving information from host supervisors is a serious problem that should be addressed through the acceleration of the process of entering into formal MOUs or other means. (See CP 25.)</p> <p>The flow of regular information from the domestic nonbank supervisors also raises issues, although the issue is somewhat lessened by the capacity of RBI to obtain copies of inspection reports from the banks, by the reporting mechanisms RBI has imposed, and by the meeting structure it has created with the other regulators. Moreover, the creation of the FSDC and its subcommittee may help address that over time, especially if the FSDC focuses on improving information exchange between the regulators—ensuring that:</p> <ol style="list-style-type: none"> 1. Mechanisms are found for written material (including inspection reports) to be regularly shared on a timely basis; 2. Escalation protocols are appropriately broad (covering IRDA as well as SEBI directly) and fully operational to promptly alert other relevant supervisors about concerns that a supervisor is developing; and 3. The semi-annual meetings on major banking companies (i.e., the designated bank-led financial conglomerates, as well as other systemically important banks not considered financial conglomerates, provided they engage in appreciable insurance or securities activities) take place on a fully regular basis, involving representatives of the supervised firm, but also allowing the opportunity for a regulators-only discussion of issues regarding that banking company.

Core Principle	Comments
	<p>There is a proposed change to Section 29A of the Banking Regulation Act that would allow RBI to call for information from any entity in the banking group. Direct access by RBI to information on subsidiaries and associated companies would be improved with the passage of this proposed amendment.</p>
2. Permissible activities	<p>Banking is well defined in Indian banking law, with a clear line of demarcation from non-banking companies. Activities that a banking company can engage in are clearly specified.</p>
3. Licensing criteria	<p>RBI has a clear licensing process, with the ability to develop necessary information and apply discretionary judgment in its decision-making, although no domestic licenses have been granted for a number of years.</p> <p>There are some areas that should be strengthened, such as:</p> <ul style="list-style-type: none"> • Putting in place a closer <i>ex ante</i> review of the intended risk management and control systems of a proposed new bank and/or ensuring that it be examined at a very early stage of its operations (within the first six to twelve months); • Requiring more clearly that a foreign bank applicant is subject to overall consolidated supervision in its home country; and • Considering the inclusion of a requirement for ongoing information exchange with the home country supervisor as a condition for licensing an office of a foreign bank.
4. Transfer of significant ownership	<p>RBI has the legal authority and operating procedures to review changes in the ownership of shares of banking companies. The definition of substantial interest is focused on beneficial ownership, avoiding issues that could otherwise crop up with shares being held by nominees.</p> <p>However, there is a prospect of control being exercised through means other than shareholdings, suggesting that it would be appropriate to find a means to incorporate a more judgmental test of controlling interest. There is also the possibility of there being a change in ownership of an existing shareholder that would not be subject to review.</p>
5. Major acquisitions	<p>The structured approach for reviewing prospective investments in subsidiaries has the key elements needed to ensure that the banking company focuses on banking activities and to provide effective oversight by RBI on expansion.</p> <p>Areas to address include the following:</p> <ol style="list-style-type: none"> 1. The capacity of RBI to monitor the risks of a nonbank subsidiary, and to take action to address on a very timely basis circumstances where problems surface, is limited, such as by the potential time-lags in getting information concerning entities regulated by other agencies and the lack of legal authority to request information about unregulated entities; and

Core Principle	Comments
	<p>2. A more systematic approach to critical review of host country supervisory arrangements should be developed and implemented.</p>
6. Capital adequacy	<p>RBI has set prudent and appropriate minimum capital adequacy requirements for banks that reflect the risks that the bank undertakes. It has defined the components of capital in accordance with internationally agreed guidelines and has the legal power to require higher capital ratios for individual banks. RBIs requirements are stricter than those established in the applicable Basel requirements.</p> <p>RBI will move to Basel III on the internationally agreed timeline.</p> <p>The assessors recommend that RBI issue guidelines requiring adequate distribution of capital among different entities of the banking group.</p> <p>Discussions with banks indicate that many challenges remain for migration to the Basel II advanced approaches. Most relate to constraints on data, tools, and methodologies, and the required skills for the quantification and modeling of risks as well as the validation these models. RBI will have to consider how to address a range of practical implementation issues consistently. Going forward, it will also have to reflect if supervisory policies and practices may have to be enhanced for effective supervision of banks applying the Basel II advanced models on an ongoing basis.</p>
7. Risk management process	<p>RBI has issued guidance on most of the key elements of risk management structure and operations, and the annual financial inspection process is used to access compliance with that guidance. The areas of improvement opportunity identified include:</p> <ol style="list-style-type: none"> 1. Establishing a requirement for periodic and rigorous model review and validation by banks, even of internal risk models not currently used for regulatory capital purposes; and 2. Ensuring that risk guidance is issued to, and applied strongly in practice to, the consolidated banking company rather than just the bank.
8. Credit risk	<p>Although Paragraph 3 of the 1999 Risk Management Guidelines state that banks should have a multi-tier credit approving system, there is no explicit RBI requirement that major credit risk exposures exceeding a certain amount or percentage of capital, or exposures that are especially risky or otherwise not in line with the mainstream of bank activity, are to be decided by the bank's senior management.</p> <p>There is no specific requirement in the regulations that potential future exposure be included in the credit management strategies or policies.</p> <p>With the increased use of credit risk models for internal risk management purposes, RBI should consider requiring banks to have a comprehensive model validation policy approved by the Board (see also CP 7). Although this requirement would of course be evident for banks intending to apply the advanced approaches under Basel II, the banks on the standardized</p>

Core Principle	Comments
	<p>approach should also be subject to validation requirements in case they use models that do not directly generate inputs to the regulatory capital calculation (for example, for an internal model used by a standardized bank for pricing).</p>
10. Large exposure limits	<p>More detailed requirements and more guidance on the criteria for the determination of “connected exposures” is required. This could take the form of a broadening of the guiding principles, for example by including cross-guarantees between entities or financial interdependency that result in the entities becoming one single risk. Likewise, RBI examiners should include the verification of the definition of connected parties in more depth during the annual financial inspection.</p> <p>The large exposure limit of 40 percent—which can exceptionally be brought to 50 percent for infrastructure exposures—for a group borrower is significantly higher than the large exposure limits of 25 percent that is considered good international practice. The assessors are cognizant of the fact that this is an additional criterion, however, they believe that this limit has the potential to allow the default of one particular consolidated borrower to cause a serious loss of capital in a banking company. While the assessors also appreciate the need for a balanced approach between financial development and financial stability objectives, they believe that the aggregate limit for large exposures is significantly out of line with international good practice.</p>
11. Exposure to related parties	<p>Elements of the current legal and regulatory structure are reasonably conservative—such as the general prohibition on lending to directors and the need for transactions with affiliates to be on an arm’s length basis. However, there are several significant areas to address:</p> <ol style="list-style-type: none"> 1. The failure of the definition of related parties to include shareholders or promoters is a gap that should be remedied. 2. Regulatory approaches should be developed for excluding any such lending from capital or for taking other adjustment steps. 3. A law change is being proposed that would require by explicit provision in law that loans to subsidiaries and joint ventures be on an arm’s length basis. A regulatory provision to ensure such an arm’s length relationship with some subsidiaries currently is in place.
14. Liquidity risk	<p>RBI has put in place a very conservative framework for liquidity risk management, which is critically reviewed as part of the annual financial inspection process, as confirmed by an inspection report review. The reviews include critical reviews of the bank’s duration gap analysis and a review of the integrity of data systems that support liquidity metrics.</p>
15. Operational risk	<p>There is no legal or regulatory requirement for banks to inform RBI of any adverse developments in operational risk. However in practice, the quarterly meetings with banks ensure that RBI is kept informed of any material adverse developments within maximum three months after the facts.</p>

Core Principle	Comments
	<p>RBI set up in 2010 a Working Group on Information Security, Electronic Banking, Technology Risk Management, and Cyber Frauds. The group examined various issues arising out of the use of information technology (IT) in banks and made recommendations in nine broad areas: IT governance, information security, information security audit, IT operations, IT services outsourcing, cyber fraud, business continuity planning, customer awareness programs, and legal aspects.</p> <p>Some banks may have already implemented or may be in the process of implementing some or many of the requirements of the circular. Therefore RBI required banks to conduct a formal gap analysis between their current status and the new stipulations as laid out in the circular and to establish a time-bound action plan to address the gaps. However, banks need to ensure implementation of basic organizational framework and put in place policies and procedures which do not require extensive budgetary approvals, or infrastructural or technology changes, by October 31, 2011. The rest of the guidelines need to be implemented by April 2012 unless a longer timeframe is indicated in the circular. There are also a few provisions that are recommendatory in nature, implementations of which are left to the discretion of banks. The requirements in this circular are not in place at the assessment date but their implementation is expected to strengthen operational risk management in the commercial banks.</p>
17. Internal control and audit	<p>RBI has put in place a good framework for internal controls. Its annual financial inspections critically evaluate a range of internal control issues such as the bank's internal audit governance and processes, their sanctions authorities, and their compliance approach and effectiveness.</p> <p>There are several recognized areas of possible improvement:</p> <ol style="list-style-type: none"> 1. Ensuring updates on developments affecting the fit and proper test for existing directors are received, and 2. Ensuring a strong focus in the annual financial inspection process on assessing the quantity and skill level of people in risk management and control functions.
18. Abuse of financial services	<p>The issues raised in FATF Mutual Assessment Report on AML/CFT that were within the responsibility of RBI have been addressed. The RBI regulatory framework for AML generally complies with the essential criteria of this Core Principle.</p> <p>Nevertheless, the inspection reports reviewed by the assessors did mention many critical weaknesses in the areas of AML/Know your Customer. From their review, the assessors conclude that Know your Customer/AML inspections have only started recently and hence no full level of compliance is to be expected at this stage.</p>
19. Supervisory approach	<p>RBI has in place an extensive system of onsite inspections and offsite monitoring of financial returns to allow it to stay abreast of the risk profiles of its supervised institutions.</p>

Core Principle	Comments
	<p>As of 2011, 645 people work in the Department of Banking Supervision (from 729 two years ago). Given the demands that will be placed on the Department of Banking Supervision and the Department of Banking Operations and Development from the Basel process and the movement to more continuous supervision for twelve of the largest banking companies (see CP 20), the assessors believe that staffing should be reviewed to ensure the appropriate quantity and quality of staff in these areas (see also CP 1.2).</p> <p>The general practice of rotating people across the departments of RBI should also be reassessed given the need to develop specialized expertise within supervision. While the assessors recognize that some rotation could be beneficial, having the bulk of the supervisory/regulatory (i.e., Department of Banking Supervision and Department of Banking Operations and Development) staff be people who spend the vast majority of their career in bank supervision/regulation and related areas (e.g., nonbank supervision) would improve the level of expertise of that area (see also CP 1.2.)</p> <p>The focus on the consolidated risks of the banking group should be increased; RBI should consider its methodology for rating banking companies, to provide explicitly for a way to reflect systematically the issues that may arise at nonbank subsidiaries.</p> <p>Clearer guidance should be issued on the need for banking groups to provide updates on developments and changes between annual financial inspections.</p> <p>RBI should ensure the review and validation of models used for internal risk management, even if not yet used for regulatory capital purposes, is consistently done.</p>
20. Supervisory techniques	<p>RBI utilizes onsite supervision and offsite monitoring to carry out its supervisory program. The principal improvement needs (some of which are also discussed under various other Core Principles) include:</p> <ol style="list-style-type: none"> 1. Building on the current program of interaction among the Regional Office inspectors as a group and the Central Office, by providing a regular forum for the inspectors to go through findings, insights, and questions particularly when new supervisory approaches are being introduced. Adding this additional element would also improve the capacity to develop more of a horizontal perspective on how banks are engaging in a particular business area or how they are carrying out an element of risk management practice. 2. More intensive reviewing of nonbank subsidiaries. 3. Improved monitoring of foreign operations through better information flow from overseas supervisors and/or more overseas inspections. 4. Ensuring critical review and validation of risk management models that are not yet used for regulatory capital purposes.

Core Principle	Comments
	<p>5. Developing more structured interaction throughout the year with directors of private sector banking companies, which could improve the knowledge of banking companies and facilitate dealing with problem situations when they arise.</p> <p>The assessors have also been advised that an initiative to consider modifications of elements of the supervisory process for the largest banking groups has begun. A Steering Group, led by a Deputy Governor, began a year-long review process in April 2011 to consider a range of potential changes. As the review began, the Department of Banking Supervision announced some restructuring of its operations to move the offsite monitoring process closer to the onsite inspection process. The assessors were also advised orally that the Department of Banking Supervision will establish a new supervisory regime for the largest (12) banking companies, which have been designated as systemically important in India, involving such elements as (i) supervisory responsibility being moved from the Regional Offices (including from the Mumbai Regional Office) to the Central Office; and (ii) the Central Office planning to shift away from the current once a year approach to a supervisory approach that is more continuous, with targeted reviews conducted of an individual banking company or a cross section of firms, focusing on areas of potential concern that have been seen through the monitoring process. The assessors believe such a program, if it is well developed and well implemented, has the potential to improve a number of our areas of concern.</p>
21. Supervisory reporting	RBI does not have the power to require information from affiliated but unregulated entities of a banking group. It has however proposed a legal amendment to address this concern.
22. Accounting and disclosure	<p>RBI does not have the direct authority to rescind the appointment of a statutory auditor. The authorities state, however, that in the past they have withdrawn this approval when serious deficiencies in the working of the external auditors have come to RBI's attention.</p> <p>The financial statements are based on accounting standards prescribed by ICAI. These are not accounting standards and auditing practices that are internationally and widely accepted. Convergence with IFRS for banks is scheduled to commence from April 2013 onwards. In India, the standards on financial instruments (AS 30, 31 and 32) have not been notified and are therefore not binding. In order to fill the gap, RBI has been issuing prudential guidelines on investment classification and valuation, and on income recognition, asset classification, and provisioning. RBI does not have access to external auditors' working papers.</p> <p>It is recommended RBI increase its interaction with external auditors.</p>
23. Corrective and remedial powers of supervisors	RBI has broad discretion in the range of remedial actions it can take to address problem situations, a prompt corrective action regime, and a set of tools to use in problem bank resolution. There are some gaps, particularly related to the applicability of the approaches to public banks:

Core Principle	Comments
	<ol style="list-style-type: none"> 1. RBI cannot disempower a public bank to carry on banking activity. 2. Even within the capital piece of the Prompt Corrective Action regime, there is considerable discretion to allow a bank to continue to operate for potentially in excess of a year, with extremely low capital; given the CRAR is a total capital concept, a 3 percent total capital level could involve very little (common) equity. 3. RBI can appoint the chief executive officer or additional directors for a problem bank. As these persons are not granted additional powers, they may give the appearance of RBI becoming involved in the management of a problem bank. RBI should provide greater clarity to these roles.
24. Consolidated supervision	<p>RBI has taken steps to broaden its supervisory focus to include a stronger focus on the consolidated group.</p> <p>Through the establishment of the FSDC and subcommittee structure, through regular inter-agency meetings, through implementation increasingly of norms for the consolidated organization, and from supplemental consolidated returns, RBI now has a number of elements of strong consolidated oversight, but gaps remain:</p> <ol style="list-style-type: none"> 1. RBI cannot order inspections of, or require reports from, domestic nonbank subsidiaries it does not regulate; a proposed amendment to the banking law (a new Section 29 (A) of the Banking Regulation Act, Power in Respect of Associated Enterprises) would, if enacted, address this consolidated supervision deficiency. RBI also is not able to undertake transaction testing at such subsidiaries. 2. RBI does not receive inspection reports directly from nonbank supervisory agencies; the timeliness and regularity of receipt should be improved as compared to the current practice of obtaining such reports from the parent bank at the time of the annual financial inspection. 3. There are opportunities to improve the process of inter-agency meetings: <ol style="list-style-type: none"> a. by ensuring that they take place on a fully regular schedule (for both designated conglomerates and other banking companies with substantial non-banking operations); and b. by providing for the opportunity for candid conversation that would arise from portions of the meetings being regulators-only. 4. RBI should consider its methodology for rating banking companies, to provide explicitly for a way to reflect systematically the issues that may arise at nonbank subsidiaries. 5. There are major gaps in home/host information sharing arrangements as detailed in CP 25. 6. RBI has not used its powers to conduct overseas inspections since 2008.

Core Principle	Comments
25. Home-host relationships	<p>The significant and growing overseas operations of Indian banks and the extent of foreign bank presence in India necessitate that RBI significantly strengthen their channels of communication and coordination with overseas supervisors.</p> <ol style="list-style-type: none"> 1. With Indian banks having overseas operations in more than 45 jurisdictions, but RBI having MOUs with only two, and informal information sharing arrangements to varying degrees with only a few others, there are material gaps in the flow of information. 2. RBI has not filled those gaps through other means such as by doing overseas inspections; it has not done any overseas inspections since one was done in May 2008. 3. RBI has also not reached out to the host jurisdictions through the hosting of any supervisory colleges. 4. Given that the jurisdictions in which Indian banks operate include a number of countries in unstable regions and/or where it cannot be assumed that strong local supervisory practices have always taken strong hold, reaching out to the range of host supervisors for increased supervisory dialogue seems most appropriate. 5. RBI also does not clearly assess during the licensing process whether the home countries of foreign banks seeking to open offices practice consolidated supervision, nor does it carry out the analysis of the quality of host country supervision through a rigorous and consistent analytical process. <p>With RBI now represented on the G-20, the FSB, and the Basel Committee on Banking Supervision, the opportunity exists to influence the direction of global policy. The capacity to do that would be enhanced with some structural changes within RBI to prepare representatives at the various meetings through better coordination and focus between the various Departments within RBI.</p>

Annex Table 6. India: Recommended Action Plan to Improve Compliance with the Basel Core Principles

Core Principle	Recommended action
Objectives, Independence, Powers, Transparency and Cooperation (CP 1)	<p>Provide greater certainty regarding the independence of RBI by removing impeding provisions from related acts.</p> <p>Provide greater clarity regarding the role of the nominee director in the public banks, which can blur the distinction between the legal powers of RBI as a banking supervisor and an active role of RBI appointed staff in the management or compliance function of a bank.</p> <p>Clearly specify in law the reasons for the removal of the head of the supervisory agency during his/her term.</p> <p>Reconsider the strict rotation policies so as to ensure staff can build up expertise in banking supervision and regulation.</p> <p>Enshrine in law that the protection for the costs of defending the actions of supervisors including the financing of any expenses from the start of the legal proceedings will be borne by RBI.</p> <p>Address the limited flow of regular information from the domestic nonbank supervisors by:</p> <ul style="list-style-type: none"> • Developing mechanisms for written material (including inspection reports) to be regularly shared on a timely basis; • Broadening and strengthening escalation protocols to promptly alert other relevant supervisors about concerns that a supervisor is developing; and • Regularly holding the semi-annual meetings on major banking companies, but also allowing the opportunity for a regulators-only discussion of issues regarding that banking company.
Licensing Criteria (CP 3)	<p>Put in place a closer <i>ex ante</i> review of the intended risk management and control systems of a proposed new bank.</p> <p>Require more clearly that a foreign bank applicant is subject to overall consolidated supervision in its home country.</p> <p>Consider the inclusion of a requirement for ongoing information exchange with the home country supervisor as a condition for licensing an office of a foreign bank.</p>
Transfer of Significant Ownership (CP 4)	<p>Incorporate a more judgmental test of “controlling interest.”</p>
Major Acquisitions (CP 5)	<p>Enhance RBI's ability to monitor the risks of nonbank subsidiaries, and seek legal authority to request information for unregulated entities.</p> <p>Develop and implement a more systematic approach to critical review of host country supervisory arrangements.</p>

Core Principle	Recommended action
Capital Adequacy (CP 6)	<p>Issue regulatory guidelines explicitly requiring adequate distribution of capital among different entities of the banking group.</p> <p>Address the various practical challenges resulting from Basel II advanced model implementation.</p> <p>Consider enhancement of supervisory policies and practices for effective supervision of banks applying the Basel II advanced models on an ongoing basis.</p>
Risk Management Process (CP 7)	<p>Establish a requirement for periodic and rigorous model review and validation by banks (recognizing the importance of internal risk models although not currently used for regulatory capital purposes).</p> <p>Ensure that risk guidance is issued to, and applied strongly in practice to, the consolidated banking company rather than just the bank.</p>
Credit Risk (CP 8)	<p>Introduce a regulatory requirement that major credit risk exposures exceeding a certain amount or percentage of capital, or exposures that are especially risky or otherwise not in line with the mainstream of bank activity, are to be decided by the bank's senior management.</p> <p>Introduce a regulatory requirement that potential future exposure be included in the credit management strategies or policies.</p>
Large Exposures (CP 10)	<p>Establish more detailed requirements and more guidance on the criteria for the determination of "connected exposures."</p> <p>Allocate more time and resources for the assessment of the definition of "connected exposures" during the annual financial review.</p> <p>Lower the 40 percent consolidated borrower large exposure limit, which can be raised to 50 percent in exceptional circumstances, to bring it in line with good practice.</p>
Related Parties (CP 11)	<p>Include shareholders and promoters in the definition of related parties.</p> <p>Require by explicit provision in law that loans to subsidiaries and joint ventures be on an arm's length basis.</p>
Operational Risk (CP 15)	<p>Introduce a legal or regulatory requirement for banks to inform RBI of any adverse developments in operational risk.</p>
Internal Control/Audit (CP 17)	<p>Ensure that updates on developments affecting the fit and proper test for existing directors are received.</p> <p>Ensure a strong focus in the annual financial inspection process on assessing the quantity and skill level of people in risk management and control functions.</p>

Core Principle	Recommended action
Supervisory Approach (CP 19)	<p>Review staffing to ensure the appropriate quantity and quality of staff to meet the demands from the Basel process and the movement to more continuous supervision for the largest banking companies.</p> <p>Reassess the general practice of rotating people across the departments of RBI given the need to develop specialized expertise within supervision.</p> <p>Increase the extent of the focus on the consolidated risks of the banking group; re-consider the methodology for rating banking companies, to provide explicitly for a way to reflect systematically the issues that may arise at nonbank subsidiaries.</p> <p>Issue clearer guidance on the need of banking groups to provide updates on developments and changes between annual financial inspections.</p>
Supervisory Techniques (CP 20)	<p>Introduce into the current programs of interaction among the Regional Office inspectors as a group and the Central Office a specific forum for going through findings, insights, and questions, particularly when new supervisory approaches are being introduced.</p> <p>Perform more intensive reviews of nonbank subsidiaries.</p> <p>Improve the monitoring of foreign operations through better information flow from overseas supervisors and/or more overseas inspections.</p> <p>Ensure critical review and validation of risk management models that are not yet used for regulatory capital purposes.</p> <p>Develop more structured interaction throughout the year with Directors of private banking companies.</p>
Supervisory Reporting (CP 21)	<p>Introduce the power to require information from affiliated but unregulated entities of a banking group.</p>
Accounting/Disclosure (CP 22)	<p>Obtain access to the external auditors' working papers.</p> <p>Increase interaction with external auditors as part of good supervisory practice.</p>
Supervisors' Corrective and Remedial Powers (CP 23)	<p>Consider the applicability of the remedial powers to public banks.</p>

Core Principle	Recommended action
Consolidated Supervision (CP 24)	<p>Empower RBI to require inspections of, or require reports from, domestic subsidiaries that it does not regulate; and to receive inspection reports directly from nonbank supervisory agencies.</p> <p>Improve the process of inter-agency meetings by:</p> <ol style="list-style-type: none"> a. Ensuring that they take place on a fully regular schedule (for both designated conglomerates and other banking companies with substantial non-banking operations); and b. Providing for the opportunity for candid conversation that would arise from portions of the meetings being regulators-only. <p>Conduct overseas inspections on a considerably more regular basis.</p>
Home-Host relationships (CP 25)	<p>Promptly address material gaps in the flow of information through the execution of MOUs or other means with overseas hosts.</p> <p>Consider hosting supervisory colleges for Indian banks with major international presence.</p> <p>More clearly assess during the licensing process whether the home countries of foreign banks seeking to open offices practice consolidated supervision and do so through a rigorous and consistent framework of analysis.</p> <p>Consider changes to prepare representatives for participation in the various international forums and working groups in which RBI participates through better coordination and focus between the various departments within RBI.</p>

E. Authorities' Response

100. RBI welcomes the comprehensive review of banking regulation and supervision in India by the joint IMF-World Bank team. The deliberations leading to this assessment have been quite extensive, comprehensive and productive. The assessment has been with respect to the highest international standards and we welcome the opportunity to comment on it.

101. The assessment recognizes that the Indian banking system remained largely stable on account of tightly controlled regulatory and supervisory regime by RBI. Notwithstanding our strong performance in the recent past, the assessment identifies several gaps and constraints in the implementation of regulatory and supervisory framework. The most significant gaps identified are in the area of international, and to a lesser extent, domestic supervisory information sharing and cooperation. Consolidated supervision of financial conglomerates, and some limits on the *de jure* independence of RBI are the other major gaps identified in the assessment. Nevertheless, the assessment also recognizes that RBI has been striving to address these gaps and, while RBI lacks *de jure* independence, there has been no *de facto* interference from the government.

102. As regards these observations, we recognize that there is no room for complacency, even as India has emerged relatively unscathed from the crisis. As a member of Financial Stability Board, Basel Committee on Banking Supervision, and IMF, India is actively participating in post crisis reforms of the international regulatory and supervisory framework under the aegis of G-20. India remains committed to adoption of international standards and best practices, wherever necessary, and in a phased manner and calibrated to local conditions to suit our best interests. However, it is our intention not only to implement the international standards and best practices, but also be ahead of the minimum requirements. We have taken several steps in the past to address systemic risk issues which are now becoming the international norms.

103. With regard to the recommendation regarding the supervisory information sharing and cooperation, efforts are vigorously on to establish information sharing mechanisms with various jurisdictions where Indian banks are operating. We have information sharing arrangements with four jurisdictions and MOUs with another 12 jurisdictions are expected to be reached shortly. Further, RBI also has informal arrangements with major jurisdictions for information sharing. Nevertheless, we recognize the importance of establishing information sharing arrangements with other jurisdictions. However, this is a time consuming process and we hope to establish appropriate information sharing networks as quickly as possible. Efforts are also on to establish supervisory colleges, so as to increase the efficacy of supervision.

104. RBI recognizes the importance of addressing the interconnectedness issue posed by financial conglomerates. RBI has taken several steps towards their effective supervision. Some of the important steps are: (i) prudential limits have been put in place on aggregate interbank liabilities as a proportion of their net worth; (ii) access to uncollateralized funding market is restricted to banks and primary dealers and there are caps on both lending as well as borrowing by these entities; (iii) investment in the capital instruments of other banks and financial institutions is restricted to 10 percent of investing banks' capital funds, in addition to the stipulation that a bank cannot hold more than 5 percent of other bank's equity; (iv) banks' exposure to NBFCs is subject to tight limits and NBFCs have been increasingly subjected to more stringent prudential regulation; and (v) we have also put restrictions on exposures to complex activities and products and have a system for intensive monitoring of financial conglomerates and for common exposures in sensitive sectors.

105. Regarding the appointment of an RBI officer as a nominee director on the Board of banks, RBI recognizes the moral hazard issues posed by this practice. However, this system has served us well and ensured more effective compliance of RBI regulations from the banks' side. Nevertheless, keeping the moral hazard issue in mind, sometime back, the respective Acts were amended to provide for appointment of one director possessing necessary expertise and experience in matters relating to regulation and supervision and regulation of commercial banks, by the central government on recommendation of RBI. This gave RBI latitude for not putting its serving officers on Boards of banks. The serving officers were replaced by retired RBI officers. However, as this transition was not particularly

satisfactory, currently serving officers are being nominated. Nevertheless, RBI is sensitive to the issue and this has since been taken up with Government of India for amendment of the enabling provisions of the Act under which RBI nominee directors are appointed.

106. We reiterate that in India the regulations are completely ownership neutral and that same level of scrutiny is applied to both public and private sector banks. Even the foreign banks, unlike in many other countries, have the same amount of freedom as the domestic banks have (except regarding expansion) and are treated exactly on par with the domestic banks for prudential purposes. When we impose penalty on a public sector bank, we do not consult the government and we place penalty imposed in public domain just as we do for the private sector banks.

107. With regard to the issue of large exposure limits, RBI does recognize that the group borrower limit is different from the single borrower limit and is significantly larger than the international norms. However, this deviation is on account of our needs to meet the development needs of the country. Some of the major corporate groups, which are also the drivers of growth in Indian economy, have grown very rapidly compared to banks. Keeping the group borrower limit at the level of single borrower limit would severely constrain the availability of bank finance, which is major source of finance in India, to these corporate groups. A reduction in lending to these groups would hamper the growth of the economy. Moreover, banks would be left with surplus lendable resources which may result in adverse selection. Thus, while RBI is aware of the deviation of Indian practice from the currently accepted international norms, this deviation is more on account of credit needs to due to compulsions of robust growth, investment needs of infrastructure and the demand ushered in by increasing financial inclusion.

108. Finally, while RBI may have some differences of opinion, RBI recognizes the importance of the FSAP in promoting financial stability and serving Indian interests. As stated earlier, RBI is committed to meet the best international practices that are appropriate for us. RBI wishes to express its strong support for the role FSAP plays in promoting the soundness of global financial system and looks forward to a continuing dialogue with the IMF/World Bank and other global counter parts in seeking to improve the stability and effective supervision of global financial system.

ANNEX II. OBSERVANCE OF THE IAIS INSURANCE CORE PRINCIPLES

A. Introduction

109. **The insurance regulatory and supervisory infrastructure in India is relatively well developed.** IRDA has a clear mandate and is a leader among emerging markets in areas such as licensing, consumer protection, market oversight, and transparency. The supervisory system is well organized but IRDA needs to strengthen its capacity in order to introduce a modern corrective action regime based on a risk-based approach to capital management. The application of prudential requirements needs to become less reliant on informal arrangements with appointed actuaries. Intervention tools need to be expanded and the *de jure* independence of the regulator needs to be strengthened. Proposed legislation pending approval would address a number of deficiencies noted in the International Association of Insurance Supervisors (IAIS) assessment, including prudential matters, intervention tools, and the independence of the regulator.

B. Information and Methodology Used for Assessment

110. **This assessment of India's observance of the IAIS Insurance Core Principles (ICPs) was carried out as part of the 2011 FSAP.** The assessment employs the 2003 version of the IAIS Insurance Core Principles and Methodology and is based on the essential criteria listed in that document. The assessment also took into account IAIS standards and guidelines, and reference was made to peer review opinions where the Methodology did not support a clear finding.

111. **IRDA has principal responsibility for insurance regulation and supervision in India, although the central government also has some reserve supervisory powers.** This assessment is based upon information made available to the assessor in preparation for and during the June 2011 FSAP mission. IRDA contributed its 2009 self-assessment and a detailed update thereof at the individual criterion level. Required documentation, including all relevant laws, regulations, and circulars was available on IRDA's website and in the Insurance Act Manual, a copy of which was provided to the assessor by IRDA management.

112. **The assessment has also been informed by discussions with regulators and market participants.** The assessor met with staff from IRDA, insurance companies, reinsurers, industry bodies and the actuarial and accounting professions, and the relevant officials in the MoF. The assessor is grateful for the full cooperation extended by all and in particular for the outstanding logistical support provided by IRDA.

C. Institutional and Market Structure—Overview

113. **The insurance sector in India has a relatively large footprint relative to other forms of financial intermediation given India's income level.** Life insurance asset under management to GDP figure of 16.8 percent (84 percent of which is contributed by LIC) puts

India in the same general range as a number of industrial countries, although underlying drivers vary. The insurance industry has been registering healthy growth in premiums with real compound annual growth rates of 13.4 percent for life and 6.8 percent for non-life over the 2005/6 to 2010/11 period. Growth in life premium has been high since 2005, largely driven by stock market performance and the popularity of unit-linked single premium contracts. India is a clear outperformer in terms of expected life insurance penetration, and is broadly in line with expectations in the non-life sector. However, non-life premium penetration has remained relatively static due to price competition following the removal of premium tariffs for non-mandatory insurance products in 2007.

114. **At the time of the assessment there were 23 life insurers operating in India, including the state-owned LIC.** All the privately owned life insurers began operations after the Indian insurance industry was opened up in 2001. Under the current Insurance Act insurers are subject to caps on foreign shareholdings of 26 percent of issued equity. Two private life insurers are 100 percent owned by domestic interests. Approximately half of the private life insurers are making accounting losses, partly reflecting the costs of establishing adequate scale, but also in some cases a problematic business model,²³ which IRDA has recently taken steps to address. LIC continues to dominate the market, arising from its enormous distribution capacity and balance sheet strength, supported by an explicit government guarantee under its Act.

115. **The non-life sector contained 19 multi-line insurers, three health insurers (all joint ventures), one agricultural insurer, and one credit insurer at the time of the assessment.** The 26 percent maximum foreign holding also applies to non-life insurers. Four of the non-life multi-line insurers are publicly owned and compete actively with each other domestically and in the case of one, internationally. These do not carry the explicit government guarantee provided to LIC. Thirteen of the private multi-line non-life insurers are joint ventures between local enterprises and international insurance groups, and two are owned by local promoters. Concentration indicators for the non-life sector are considerably healthier than for the life sector although the public sector still dominates.

116. **There is one public reinsurance company, the former holding company for the four non-life public insurers.** It is gradually developing an international portfolio to balance its Indian sourced business, which includes a 10 percent compulsory local cession. No international reinsurers have established local branches although most maintain representative offices.

117. **All new or modified insurance products in India require supervisory sign off** and IRDA has the authority to specify key product parameters, including expense loadings.

²³ This involved creating poor value for consumers by selling single premium unit linked and variable insurance products through expensive insurance agency distribution structures.

118. **India has high initial capital requirements by international standards, but given the costs of establishment in such a large and competitive market, the requirements appear to be reasonable.** Minimum establishment capital for a specialist direct writer is INR 1 billion (approximately US\$20 million), and twice this for a reinsurer. Indian insurers are required to report solvency quarterly and this is disclosed on their websites. Solvency is certified annually by the appointed actuary. Minimum solvency is broadly in line with the European Solvency I regime (i.e., in aggregate approximately equal to the minimum solvency requirement under the Quantitative Impact Study 5 of Solvency II). In practice insurers are required to maintain a minimum capital of 150 percent of the statutory solvency amount. Under the current law and regulations there is no explicit corrective action ladder tied to the solvency ratio. Solvency ratios at the end of 2009/10 were largely in the acceptable range. Overall the life sector appears to be stronger than the non-life sector.

119. **The Indian insurance sector and the authorities responsible for its development and stability are facing a number of major issues at present.** These include stabilizing the motor third-party liability results, putting health insurance onto a sound footing, raising the bar for the actuarial profession in terms of specialization, and formulating a framework for pension unit-linked insurance products (ULIPs) that balances consumer protection and commercial viability.

D. Main Findings

120. **The preconditions for effective supervision are generally met.** Where principles are not fully observed, generally one of 5 reasons applies:

- The weakness has been recognized but addressing it requires legislative action. The Insurance Amendment Bill, which has been pending in parliament for three years, contains numerous required reforms, including the treatment of reinsurers, facilitating amalgamations and transfers, appeals processes, oversight of related party transactions, introducing fines at appropriate levels as effective deterrents, and clarifying the respective supervisory roles of IRDA and the central government.
- The ICP concerned has not had the same priority as others with greater urgency and potential impact. IRDA has begun work on such issues, including combating fraud and exit processes.
- IRDA has so far decided that India is not yet ready for a full transition to cutting edge international approaches due to informational and skills shortages and a continuing lack of international consensus. Certain prudential ICPs come under this heading and IRDA will need to augment its resources in its core supervisory departments if it is to introduce a rigorous corrective action and enforcement regime built on a risk-based approach to the capital and operational management of insurers.

- IRDA has adapted to policy decisions applying in the larger Indian context. Accounting approaches, particularly for assets, come under this category.

121. There also areas where IRDA has strong and explicit regulation in place or any weaknesses have been addressed through practice.

- IRDA’s ongoing supervision of insurance companies, markets, and consumers is tight and displays a strong level of control. Most ICPs in these sections are fully observed. Disclosure and consumer protection are at a high level by international standards.
- The application of prudential requirements needs to become less reliant on informal arrangements agreed by appointed actuaries. Relevant standards should be produced and ideally an Actuarial Standards Board established. In addition, there should be a plan to introduce specialized certification of actuaries, particularly for non-life business.

Annex Table 7. India: Summary of Observance of the Insurance Core Principles

Insurance Core Principle	Comments
ICP 1 – Conditions for effective insurance supervision	If supply continues to be an issue there may be a need to consider an appointed actuary system whereby qualified actuaries from acceptable overseas members of International Actuarial Association can gain local accreditation after a suitable period of experience and with proper references. IRDA should regularly obtain a listing of approved auditors from ICAI.
ICP 3 – Supervisory authority	The current uncertainty regarding IRDA’s control of its funding and budget, its incomplete oversight of LIC, and the reserve powers of the central government to direct its activities all potentially detract from the supervisor’s powers and independence.
ICP 5 – Supervisory cooperation and information sharing	The cooperation and information sharing system between the three key domestic financial sector supervisors (the former RBI High Level Committee) should be formalized. IRDA should formalize mechanisms to advise host supervisors of actions that are relevant to them—e.g., requiring an insurer to close down a poorly performing branch.
ICP 6 – Licensing	The government may wish to specify maximum timeframes for IRDA to respond to applications including specifying requirements for more information.
ICP 7 – Suitability of persons	It would be desirable that either a Board Nominating Committee become mandatory or the compliance officer be required to immediately advise IRDA of the fit and proper details of any new directorial appointment. In addition, it is desirable that the Actuarial Certificate of Practice specify the areas in which an actuary is qualified to practice.

Insurance Core Principle	Comments
ICP 8 – Changes in control and portfolio transfers	While practice achieves this, the Insurance Act would ideally state that the interests of the policyholders of both insurers involved must be taken into account in assessing a portfolio transfer or merger and that an independent actuarial report should be required to confirm this.
ICP 9 – Corporate governance	<p>While the Corporate Governance Guidelines are comprehensive, the monitoring process appears to be limited. In particular, the company secretary, who is the relevant compliance officer, is often beholden to the chief executive officer and has numerous other responsibilities, and the external auditor is not required to report on adherence to the guidelines—this additional check should be instituted.</p> <p>It is advisable that related party transactions be reported on an exceptions basis according to size or nature—ideally as part of the quarterly reporting process. If a related party transaction (e.g., provision of expert advice by one of the significant shareholders) appears to be egregiously mispriced then IRDA should seek independent advice on the pricing and if necessary take appropriate supervisory action.</p>
ICP 10 – Internal controls	The Corporate Governance Guidelines should explicitly cover the internal audit function, specify that it needs to have a senior officer responsible for its fulfillment and that it have sufficient resources and an unfettered access to required information, that it is sufficiently independent, and that it has direct access to the audit committee and the Board as a whole.
ICP 12 – Reporting to supervisors and off-site monitoring	It is desirable that the monthly reports include more short-term risk data in addition to sales and branch/geographical development data.
ICP 13 – On-site inspection	It is recommended that a staff member with IT system skills is added to a full scope inspection team—particularly given the growing role of IT in Indian insurers' strategies. In addition, it would be helpful to the managements and Boards of insurers, possibly through the Audit and Risk Management Committees, to arrange a feedback meeting after an inspection is completed. For normal scheduled full scope inspections a three or four year cycle is adequate: insurers normally have very different risk profiles to banks which do need more frequent inspection.
ICP 14 – Preventive and corrective measures	<p>IRDA does not have a modern risk-based early warning system in place and the ratios that are measured appear to be largely generic rather than based on emerging experience. The supervisor is currently examining the Northern European traffic light system.</p> <p>It is of concern that IRDA does not have a direct role when insurers engage in capital management such as buy-backs. This should be rectified in any Amendment Bill finally agreed.</p>

Insurance Core Principle	Comments
ICP 15 – Enforcement or sanctions	<p>The enforcement actions and sanctions open to IRDA tend to be at the extremes—relatively light or very heavy. In addition IRDA needs to refer certain fundamental corrective actions, such as appointing an administrator, to the central government.</p> <p>The corrective actions regime needs to be formalized through a ‘Supervisory Guide’ or Ladder of Intervention so as to provide IRDA with stronger legal backing when it intervenes.</p> <p>The financial sanctions available in particular are outdated and need to become relevant to the modern scale of insurers and impact of inflation.</p>
ICP 16 – Winding-up or exit from the market	<p>The authorities may wish to consider allowing the voluntary wind-up of solvent non-life insurers, subject to satisfactory safeguards. In some circumstances claims run-off can be the most efficient method of exit.</p> <p>In addition, it is desirable that the provisions relating to the appointment of an administrator for non-life insurers be brought into line with those applying to life insurers.</p>
ICP 17 – Group-wide supervision	<p>India has made a good start on creating a conceptual framework for conglomerate group supervision (and oversight of systemic risk) but the information flows, processes, and early warning mechanisms involved need to be formalized, possibly through an MOU among the four supervisors if a coordination body with statutory status is not seen as being desirable.</p> <p>Individual supervisors should have more power to consider group structures and exposures and related party transactions in determining its interventions. Ideally an ad hoc committee of an insurer’s directors (the majority of whom should be independent) should, by law, consider each related party transaction to ensure that market prices have been applied, that the transaction is in the interests of the insurer, and that the quantum of value involved does not warrant shareholder approval (if there is more than one shareholder) or otherwise is not materially relevant to the insurer’s net asset position.</p>
ICP 18 – Risk assessment and management	<p>This ICP has been assessed on the basis of control of investment and underwriting risk. Further work needs to be done on the monitoring of operational (including general systems) risk—see Internal Control (ICP 10).</p>
ICP 20 – Liabilities	<p>The need for life appointed actuaries to determine valuation discount rates through informal agreement is undesirable. In addition expense over-runs should be provided for if they appear to be chronic once the establishment period is finished. However, the basic liability methodology adopted is sound in practice.</p> <p>The non-life valuation rules do not provide any guidance as to where claims provisions (typically the main component of the technical reserves) should be set on the distribution of possible results.</p>

Insurance Core Principle	Comments
ICP 21 – Investments	<p>In a high interest rate environment the investment valuation basis is potentially inconsistent with the Insurance Act, which states that no asset may be held above its market value.</p> <p>The required skills and experience of investment officers should be specified, if only in broad terms and subject to oversight by the Board.</p>
ICP 22 – Derivatives and similar commitments	<p>If IFRS is fully implemented in India for insurers, the value of debt holdings will fluctuate and derivatives may become more attractive instruments in order to stabilize results. At this point IRDA would need to strengthen its governance oversight and perhaps require monthly reporting of exposures.</p>
ICP 23 – Capital adequacy and solvency	<p>The Solvency II Quantitative Impact Studies have demonstrated that Solvency I levels of capital are inadequate. IRDA has recognized this with a non intervention 150 percent solvency ratio requirement. However, this has not been translated into a mandatory corrective action process and has been weakened already for the non-life sector.</p> <p>The rating largely reflects the informal solvency testing system that is in process of being adopted, the nature of the ownership of Indian insurers, the need for insurers to examine their asset-liability matching, and the ongoing oversight role of the actuarial profession. In addition ICP 20 has identified prudential shortcomings in the non-life sector. It is desirable that the economic capital calculation is formalized, possibly as an adjunct to the corrective action regime that is being examined in parallel.</p>
ICP 24 – Intermediaries	<p>As insurance brokers become more important in insurance intermediation the relevant statutory reporting should be upgraded. In particular an annual or six monthly report showing premiums collected, commissions received, amounts forwarded to insurers, and the amounts held in policyholder trust funds would provide more focused risk information.</p>
ICP 25 – Consumer protection	<p>The 12 Ombudsmen do not communicate and there may be some grounds for establishing a mechanism to share experiences and observations.</p>
ICP 27 – Fraud	<p>Fraud is a growing issue, particularly in the health insurance business. At present preventive actions are being adopted by individual insurers. However there had been little in the way of an industry wide response and relevant IRDA guidance is still to be developed and promulgated.</p>
ICP 28 – Anti-money-laundering, combating the financing of terrorism	<p>It is advisable that the growing role of brokers be addressed through a new directive. Financial sanctions also need to be strengthened for legal person intermediaries but the existing name and shame option is likely to be effective in the interim.</p>

Annex Table 8. India: Recommended Action Plan to Improve Observance of the Insurance Core Principles

Principle	Recommended Action
ICP 3 – Supervisory Authority	The Insurance Amendment Bill needs to be passed and become effective so as to ensure that IRDA is clearly independent and has a wider range of direct powers of intervention. Greater transparency over the early departure of senior officers is required.
ICP 15 – Enforcement or Sanctions	<p>The enforcement regime needs to be formalized through a regulatory ‘Supervisory Guide’ or ‘Ladder of Intervention’ so as to provide IRDA with stronger legal backing when it intervenes and to limit the scope for forbearance. Additional intermediate enforcement powers could include:</p> <ul style="list-style-type: none"> • The ability to impose selective time and volume limitations on business activities (including by geography and product); • The ability to require deposits if assets security is a concern; and • The ability to impose an expiry date for a license to encourage timely rectification of undesirable financial ratios or operating practices. <p>Financial sanctions need to be updated to reflect the impact of inflation since the fines were first established.</p>
ICP 20 – Liabilities (non-life)	IRDA should provide guidance as to where long tail provisions should be set on the distribution of possible results. Ideally the non-life actuary should provide a range of possible values to management and Board and show where, say the 75 th percentile value lies. In addition, non-life Appointed Actuaries should be certified on the basis of training and experience in this very specialized area.
ICP 27 - Fraud	Continue the development of fraud control systems.

E. Authorities’ Response to the Assessment

Overall assessment

122. IRDA was set up under an Act of Parliament in the year 2000. The Authority has been set up with the objectives of both regulation and development of the insurance sector in India. The insurance sector in India has witnessed significant progress over the period 2000/11. Simultaneously, the supervisory and regulatory framework has been built-up to match the international standards while adapting the same to meet the needs of the Indian jurisdiction.

123. As part of the assessment process it has been brought out that there are issues relating to *de jure* independence of the regulator given the fact that the legislation provides for certain powers to be vested with the central government. In this regard, it is reiterated that IRDA has

been mandated with the statutory responsibility of regulation and supervision of the insurance sector in India. While the Insurance Act, 1938 and the IRDA Act, 1999 provide for certain powers to rest with the central government, these are more as a matter of caution to be invoked in emergent situations and do not in any manner impinge on the independence of the supervisory body.

Life insurance industry

124. *Concentration in the life insurance industry.* The insurance sector was opened up to private participation in the year 2000. Thereafter till date 23 life insurance companies have been granted registration to underwrite insurance business in the country. While, it is a fact that the life insurance industry is concentrated, this needs to be viewed against the fact that prior to the opening up of the sector, LIC was the only life insurance company operating in India. Post opening up of the sector, the size of the life insurance sector in the country has been growing and the share of LIC in the said market had steadily declined, other than in the last one year or so when the market has been a witness to significant corrections post issue of directions on the nature of ULIPs being offered.

125. While certain issues have been raised about the supervision of the public sector life insurance company, it is reiterated that in so far the supervisory and regulatory framework is concerned, it is a level playing field for both the private and state owned insurance companies, and the oversight of LIC is comprehensive in terms of both prudential matters and market conduct. It may further be mentioned that Government of India is examining the recommendations of the expert group set up in August 2010 to examine the functioning of LIC.

126. During the period commencing 2005, a significant shift was observed in the sale of unit linked products, with the growth in business coinciding with the bullish stock market conditions. The growth in the ULIPs, over the years also resulted in certain practices creeping in which were not considered to be prudent for the healthy growth of the insurance sector in the country. In 2010, IRDA took a number of steps to address concerns on the products being offered by the insurers. These include stipulations on both ULIPs and the Variable Insurance Products.

Non-life industry

127. *Performance of the industry in the de-tariffed scenario.* Prior to 2007, the Indian non-life insurance market was predominantly under Tariff Price and the underwriting performance was satisfactory in most of the years except when catastrophic events had taken place (1998, 2001, 2005). In 2007, the Tariff pricing model was dismantled (except Motor Third Party Insurance) to encourage competition and risk-based pricing models to emerge. It has been the experience of markets elsewhere in the world that a shift from a tariff price regime to a free price regime results in the price levels dipping significantly resulting in a strain on the underwriting performance. The experience in India, in the post de-tariffed

scenario has been on similar lines. With 24 non-life insurers competing for a decent share in the available business and the last four years have been benign ones (devoid of any major catastrophic events like flood, earthquake, cyclone, etc.) the prices have dipped rather steeply. As part of the oversight under the file and use procedure, for new products filed by the insurers, the Authority critically looks at the pricing method and ensures that the Appointed Actuary certifies its adequacy and viability.

128. While observing that the underwriting performance has deteriorated over the last four years and that there is a need for an early correction to achieve sustainability, IRDA has been advising the insurance companies through interactions in the General Insurance Council as well as otherwise on the need to review the pricing philosophy and standards. IRDA has initiated review exercises on underwriting performance of individual companies to ensure that the pricing is as per and in line with the method and parameters filed with the Authority. As part of the review process, the IRDA also examines the adequacy of Reserves for Claims through interaction with the respective appointed actuary.

129. *Remedial action required in Health Insurance—Poor information, poor administration, and fraud issues.* The health insurance market has really picked up in the last five years in India. With the improvement in the availability of health care facilities, the Indian population has realized the need for an insurance protection to meet the cost of getting an adequate healthcare and correction. Corporate insurers have adopted the model of providing a considerable Insurance facility for their employees and their immediate family by procuring a Group Health Insurance Scheme. The growth of gross premium in this line of business has been over 30 percent year-on-year in the last five years. The Third Party Administrators have also been facilitated towards servicing of claims and to serve as a link between Insurers and Health Service Providers. The initial capture of data was insufficient and the market felt the need for adequate data to underwrite this line of business effectively and at competitive price. The Authority has already facilitated capture and transfer of data in a prescribed format to the Insurance Information Bureau, an initiative of IRDA and General Insurance Council. The Insurance Information Bureau has already started publishing analytical results of these data and the Bureau is working on enhancing the quality of data captured and published.

130. Acknowledging that fraud in this line of business is a challenge to be met squarely, IRDA is in the process of deploying a software tool to detect probable fraud cases and assist the insurers in tackling and curbing them effectively. The Authority also encourages exchange of information on fraud cases amongst the insurers through the General Insurance Council. The regulatory framework on detection, classification, monitoring, reporting and mitigation of frauds is presently being put in place.

131. *Review of Government's role and strategy in the non-life insurance market.* The Government of India is already examining the various issues relating to its role and strategy, and has commenced consultation with various stakeholders including the public sector

insurance companies themselves. A White paper on various alternatives (including merger, partial disinvestment) has been circulated. The dominant challenge will be dealing with the huge workforce of over 70,000 employees in the four direct insurance companies. It is also a fact that two of the companies have better financial credentials while the other two do not.

132. The recent review on adequacy of reserves towards claims under the Indian Motor Third Party Insurance Pool for commercial vehicles and the correction effected resulted in dipping of the solvency levels of the two companies mentioned. Authority has brought this to the attention of Government.

133. Meantime, the Authority has directed an increase in the price of the Motor Third Party Insurance line and it is expected to correct the trend to a considerable extent. The IRDA has also recently issued directions (i) dismantling the existing Indian Motor Third Party Pool with effect from March 31, 2012; and (ii) setting up the framework for Motor Third Party Declined Risk Insurance Pool for commercial vehicles.

Investments: *Specify the risk responsibility on insurers' Boards relating to bank exposures*

134. The IRDA has put in place robust mechanisms for investment of the assets of management. The limits of exposure at the company, group, and industry levels have been prescribed and have to be adhered to. The overall responsibility on compliance with the stipulations rests with the Investment Committee of the respective insurer with audit oversight and reporting requirements to the Boards. It is felt that no additional oversight is required specifically for bank exposures.

Solvency requirement: *Corrective ladder mechanism*

135. The statute has laid down the stipulation of solvency of 100 percent. However, IRDA as part of the registration requirements has laid down the solvency requirements at 150 percent which must be complied with at all times. Against this background, the Authority does not envisage the need for a ladder approach to the intervention levels. However, with a view to facilitating a risk based oversight, IRDA is working on the early warning signals. The early warning signals would enable IRDA to take quick action in case of concerns being thrown up as part of the regular monitoring process.

136. As regards moving towards the risk based approach to solvency (on lines similar to the European Union), IRDA is presently examining various issues related to the same and would take a concerted decision on the same after deliberations with all stakeholder.

Comments on ICP-wise assessment

ICP 1 – Conditions for effective insurance supervision

- The Authority has put in place the minimum eligibility criteria for appointment of statutory auditors of insurance company. Under the requirements put in place, the management of the respective insurers is required to ensure compliance with these stipulations, with the oversight of the respective Boards. While we have examined the suggestion that IRDA should regularly obtain a list of approved auditors from ICAI, it is our firm view that the supervisor should not get involved in maintaining the list of approved auditors from the ICAI.
- The IRDA (Appointed Actuary) Regulations, 2000 lay down the eligibility criteria for appointment of an Appointed Actuary by an insurer. The Authority has taken note of the suggestion that we could consider an Appointed Actuary system whereby qualified actuaries from acceptable overseas members of the International Actuarial Association can gain suitable accreditation with the Institute of Actuaries of India. The Authority is examining the proposal and has entered into consultation with various stakeholders on the matter.

ICP 3 – Supervisory authority

- The regulatory oversight on LIC is quite comprehensive to the extent that it requires monitoring both prudential and market conduct operations of LIC. Though, LIC Act excludes the applicability of certain provisions of Insurance Act, 1938 nevertheless there is no dilution on the regulatory oversight on LIC.
- The assessment has raised concerns on certain reserve powers of the Central Government to direct the activities of IRDA and the same impacting the supervisor's powers and independence. In this regard, it is reiterated that these powers are of the "reserve" nature, with the objective of using them in emergent situations. These do not in any way impinge upon the IRDA's powers and independence. The concerns as regards the *de jure* independence are unfounded.
- As regards the need for greater transparency over early departure of senior officials of the Authority, Section 5 and 6 of the IRDA Act provides for the appointment and removal from office of the Chairman and other members of the Authority. There are laid down procedures for the same. All appointments and removals by the Government of India are, as a matter of procedure, notified in the official gazette.

ICP 5 – Supervisory cooperation and information sharing

- The IRDA has applied to be a signatory to the Multilateral Memorandum of Understanding (MMOU) with the IAIS. This would provide gateways for exchange of information between regulators of various jurisdictions.

ICP 6 – Licensing

- It has been indicated that the Central Government may specify timelines with regard to licensing. The timeline for process of application for registration of intermediaries—namely brokers, corporate agents, and third party administrators—are specified in the IRDA Regulation. The Government prescribing timelines for registration of new insurance companies may, however, not be appropriate as the process necessitates due diligence and judgement of the ‘fit and proper’ criteria of the promoters’ financial strength, more particularly their ability to fund the insurance/activity both in the start-up and in the long term.
- In order to improve the transparency in the process of licensing, IRDA is exploring the possibility of putting-up the status of all entities’ requests on the IRDA website.

ICP 7 – Suitability of persons

- The Insurance Act, 1938 requires that the chief executive officer and executive directors be appointed with the specific approval of the IRDA. Further, under the Corporate Governance guidelines issued by the Authority, the Board of the respective insurers is responsible for checking the fit and proper compliance.

While it is observed that no domestic regulator has stipulated a mandatory requirement on Nomination Committee, the Authority is examining the proposal for putting in place stipulations requiring the insurers to intimate the Authority on the compliance with fit and proper requirements on the appointment of new Directors. (In effect, this would mean that details of other than Executive Directors being compliant with fit and proper would need to be filed with IRDA).

- It has been recommended that the Actuarial Certificate of Practice issued to the Actuary should specify the area in which the said Actuary is qualified to practice. The intent of such recommendation is that Actuaries practising in the non-life segment should have the requisite exposure to conduct technical valuations of non-life insurance companies. The recommendation has been forwarded to Institute of Actuaries of India and their views on the matter are awaited.

ICP 8 – Changes in control and portfolio transfers

- It has been recommended that the Insurance Law should explicitly state that interest of policyholders of both insurers involved must be taken into account in assessing the portfolio transfer/merger. Independent Actuarial report should confirm the same. The Section 35 of the Insurance Act, 1938 deals with amalgamation and transfer of life insurance business. Further, the IRDA (Scheme of Amalgamation and Transfer of General Insurance Business) Regulations, 2011 lay down the framework for Mergers and Amalgamation of non-Life insurance companies. The underpinning of the regulatory framework is protection of the interests of the policyholders. However, IRDA would examine the recommendation, and if it is felt necessary to incorporate specific stipulations stating that interest of policyholders of both insurers involved must be taken into account in assessing the portfolio transfer/merger, these provisions shall be explicitly incorporated in the regulatory framework.

ICP 9 – Corporate governance

- The Authority will examine the proposal to enhance the scope of the statutory auditor's report to cover compliance with the corporate governance guidelines. Further, the reporting on the same can form part of the Auditor's Report attached to the financial returns filed by the insurance companies on an annual basis.
- Another recommendation on strengthening the corporate governance framework is on the requirement that related party transactions should be reported to the Authority ideally as part of monthly reporting process. The Accounting Standard 18 (AS-18) issued by ICAI deals with the related party transactions. The statutory auditors are required to comment on the arm's length of such transactions. The insurance companies are also required to make disclosures on related party transactions on an annual basis. A view whether there is a need to strength the mechanism through greater oversight and for reducing the periodicity on such reporting would be taken based on discussions with the other financial sector regulators.

ICP 10 – Internal control

- Additional recommendations have been made on strengthening internal control and internal audit under the corporate governance guidelines. The Authority's comments on the same are that both internal control and internal audit have been mandated under the regulatory framework and under the corporate governance Guidelines. The statutory auditors and the audit committee have an oversight over these functions. The statutory auditors are also required to comment on the adequacy of the internal controls. All insurance companies have in place internal audit departments, headed by senior level executives and internal audit is carried out through in-house/outsourced personnel. At the moment, the Authority does not consider it necessary to stipulate

that the internal audit function should necessarily be carried out by an internal department of the insurance company. The Authority will, however, examine the existing framework and the corporate governance guidelines, if necessary.

ICP 12 – Reporting to supervisors and off-site monitoring

- It has been recommended that monthly reporting could include more short term risks, data in addition to sales and branch/geographical development data. The Annual Appointed Actuary’s Report requires the insurance companies to cover the risks faced by them. It is proposed that such reporting is robust to cover all risks faced by an insurance company. Once the mechanism stabilizes, it is proposed to reduce the periodicity to half yearly.

ICP 13 – Onsite inspection

- Certain comments have been made on making the onsite inspection more robust. IRDA’s comments on the recommendations are as under:
 - The inspection teams are well formed including inspectors from major areas on which the inspections are required to be carried out. Further, such teams also have a systems person as part of the full scope inspection teams.
 - The Authority has in place a mechanism whereby, the reports of the inspection team are shared with the insurance company. The IRDA further has in place an internal Standing Committee which deliberates on the findings of the inspection teams and the responses of the respective management on the findings prior to taking a final call on further course of action in case of any regulatory issues.
 - It is proposed that the necessary onsite inspection capacities be built within the IRDA to ensure full financial audit at a periodicity of 3–4 years for each company. In case the situation so warrants due to regulatory concerns, the inspections may be carried out even at shorter intervals.

ICP 14 – Preventive and corrective measures

- The IRDA is presently working on strengthening the preventive and corrective measures through the early warning system to facilitate early intervention in case of an emerging regulatory concern.
- IRDA also proposes to put in place the mechanism to require its concurrence/compliance with certain prerequisites in cases where the insurer proposes to engage in capital management through such actions as ‘buy-back’ of shares.

ICP 15 – Enforcement of sanctions

- The existing provisions of Section 102 of the Insurance Act, 1938 enable IRDA to levy a penalty of INR 5 lakhs for each instance of violation without any overall ceiling or cap. Hence, based on severity and outcome of a violation the Authority takes a call. Further, the Insurance Amendment Bill, 2008 proposes to increase the quantum of penalty leviable on insurers for various violations (with the maximum penalty proposed to be raised to INR 25 crore).

ICP 16 – Winding-up and exit from the market

- It has been recommended that IRDA may consider allowing the voluntary wind up of solvent non-life insurers, subject to satisfactory safeguards. In some circumstances claims run off can be the most efficient method of exit. It has also been recommended that the provisions relating to the appointment of an Administrator for non-life insurers be brought into line with those applying to life insurers. The Authority is examining these recommendations.

ICP 17 – Group-wide supervision

- The recommendation on formalizing the information sharing mechanism has been commented upon under ICP 5. The subcommittee of FSDC has the mandate to examine issues relating to sharing of information and coordination between the financial sector regulators. The issues relating to individual supervisors having greater power to consider group structures, exposure and related party transactions, and determining their intervention shall be taken up at the subcommittee to consider the way forward.

ICP 18 – Risk assessment and management

- The Authority's stand on the proposed framework for reporting of risks by the insurance companies has been spelt out against ICP 12. It is proposed that the internal audit and control functions and the corporate governance guidelines are dove-tailed to ensure a robust risk assessment management framework. Certainly, addressing the operational risks is at the top of the IRDA's agenda. Stipulations on Asset Liability Management to address various risks faced by insurance companies have been mandated for all insurance companies which are effective April 1, 2012.

ICP 20 – Liabilities

- The FSAP mission has made recommendations on valuations of liabilities of life and non-life insurance companies. Broadly, the recommendations are twofold as indicated below:

- Need for life actuaries to compensate difference between the philosophies underlying the liability and asset valuation undesirable. In addition expense over-runs should be provided for if they appear to be chronic once the establishment period is finished.
- Non-life valuation rules do not provide guidance on where long tail provisions should be set on—distribution of possible results.
- IRDA has recently set-up *vide* Order No. IRDA/ACT/ORD/MISC/131/06/2011 dated June 21, 2011, an Actuarial Standing Committee to advise on various matters relating to actuarial standards/regulations, etc. These recommendations have been forwarded to the Standing Committee for examination.

ICP 21 – Investments

- The mission has drawn attention to the contradiction in the valuation of debt instruments, whereby these are not being valued at not exceeding their market or realisable value as provided under section 64V of the Insurance Act, 1938. The Authority has taken a conscious decision in the matter in view of the fact that investments made by insurance companies are, by their very nature, long term and are thus being valued at acquisition cost subject to provision for nonperforming assets.
- As regards the comment on required skill and experience of investment offices of insurance companies being specified by the regulator and should be subject to oversight by the Board, the IRDA is of the view that these requirements fall within the mandate of the Investment Committee which is further within the oversight of the respective Board. The stipulations on the constitution of the Investment Committee have also been laid down under the regulatory framework.

ICP 22 – Derivatives and similar commitments

- The reporting mechanism with respect to derivatives would be strengthened on the insurance companies taking exposure to derivatives.

ICP 23 – Capital adequacy and solvency

- As indicated above, IRDA is working on the early warning signals.
- The Authority has taken note of the recommendations on strengthening the capital adequacy and solvency regime. In this regard, attention is drawn to the fact that while the Insurance Act requires the insurance companies to maintain the solvency of 100 percent, the Authority as part of the registration requirements stipulated that all insurance companies must maintain a solvency of 150 percent at all times. In addition, IRDA has laid down stipulations on computation of economic capital by life

and non-life insurance companies. Further, the Institute of Actuaries of India has released guidance on embedded value calculations for life insurance companies. IRDA is also examining the merits of moving toward a standardized risk based solvency model. It is envisaged that with the stabilization of these initiatives, the capital adequacy and solvency regime would become risk based.

ICP 24 – Intermediaries

- It has been recommended that as insurance brokers become more important in insurance intermediation the relevant statutory reporting should be upgraded. In the context of the comments made, it may be mentioned that only reinsurance Brokers are permitted to collect and remit the premiums (Reg. 4 (j)) and provisions relating to segregation of insurance money and Insurance Bank Account also relate to Reinsurance Brokers (Reg. 23). Further, IRDA has in place reporting requirements for insurance brokers, including that all licensed insurance brokers shall submit to the Authority premiums placed to the insurance companies segment-wise and the brokerage received on the same from the insurance company. The insurance brokers are also required to file annual audited accounts and half yearly unaudited accounts.
- The direct insurance brokers are not permitted to accept insurance premiums in their account, except reinsurance brokers. Therefore, there are no policyholder trust funds. The insurance brokers are also required to have a cover through professional indemnity policy. Reporting norms for reinsurance brokers about the amounts held by them in their reinsurance accounts can be examined by the Authority.

ICP 25 – Consumer protection

- The recommendation on strengthening the framework on Ombudsman is under the consideration of the Government of India. IRDA would be providing the necessary inputs in this regard to the Government of India.

ICP 26 – Information, disclosure, and transparency toward the market

- As a way forward, IRDA is proposing to work on the snapshot of financial performance parameters to be disclosed by insurance companies at an annual periodicity, which may be further shortened.

ICP 27 – Fraud

- The IRDA is presently working on putting in place the regulatory framework on frauds for the insurance sector in India. The mechanism would aim at insurance companies having a robust framework to address, monitor, and mitigate risks arising from frauds, reporting of frauds for life, non-life, and reinsurance companies.

ICP 28 – Anti-money laundering, combating the financing of terrorism (AML/CFT)

- It has been recommended that insurance brokers should also be brought within the purview of AML/CFT guidelines. While the percentage of business procured through brokers is very low at around 1 percent in case of life insurance companies, in case of non-life insurance companies, their presence is much more significant. The Authority is examining the proposal to bring brokers under the ambit of AML/CFT guidelines.
- The issues relating to financial sanctions being enhanced have been addressed under ICP 15.

ANNEX III. IMPLEMENTATION OF THE IOSCO PRINCIPLES AND OBJECTIVES OF SECURITIES REGULATION

A. Introduction

137. **An assessment of the level of implementation of the IOSCO Principles in the Indian securities market was conducted from June 15 to July 1, 2011 as part of the FSAP.** Although an initial IOSCO assessment was conducted in 2000, significant changes have taken place since then in the Indian market, in terms of market development and the upgrading of market infrastructure and of the regulatory framework.

138. **India exhibits significant progress in the implementation of the IOSCO Principles vis-à-vis the assessment concluded in 2000.** In particular, the legal authority of SEBI has been strengthened and SEBI has now broad regulatory, licensing, investigation, supervision and enforcement powers. Based on such strong legal framework SEBI has also developed robust regulations for different types of market participants, including issuers, collective investment schemes (CIS), brokers, portfolio managers, underwriters, and Recognized Stock Exchanges (RSEs)—although in the medium term its approach to capital requirements should be revisited. Finally, efforts made by SEBI during the last years to build a robust market surveillance system and separate investigation and enforcement departments have translated into effective enforcement of unfair trading practices, such as market manipulation and insider trading.

139. **SEBI faces three main challenges that together impact the effectiveness of the supervisory programs for issuers and securities intermediaries:** strengthening the supervision approach toward securities intermediaries, including fund managers and the funds they administer; improving mechanisms to ensure compliance of issuers with reporting requirements; and mechanisms to ensure compliance with accounting and auditing requirements. SEBI is aware of such challenges and some measures are currently being implemented to address them. In the long term those challenges involve strategic discussions concerning the role of the RSEs, MCA, and SEBI's resources. An important challenge outside of the control of SEBI is criminal enforcement, which needs to be stepped up. This is a challenge faced by many countries and measures to address it are complex, in particular because they are out of the control of the securities regulator.

B. Information and Methodology Used for the Assessment

140. **The assessment was conducted based on the IOSCO Principles and Objectives of Securities Regulation and its Methodology adopted in 2003 and updated in 2008.** In June 2010, IOSCO approved a revision to the IOSCO Principles, which mainly resulted in the addition of nine new Principles. At the time of the assessment a revised methodology had not been approved, hence this assessment has been conducted based on the Principles adopted in 2003 and their corresponding methodology. Nevertheless, the authorities agreed to hold exploratory discussions on the status of implementation of the new principles. As has been

the standard practice, Principle 30 is not assessed due to the existence of a separate standard for securities settlement systems.

141. **The IOSCO methodology requires that assessors not only look at the legal and regulatory framework in place, but at how it has been implemented in practice.** The recent global financial crisis has reinforced the need for assessors to take a critical look at supervisory practices, to determine whether they are effective enough. Among others such judgment involves a review of the inspection programs for different types of intermediaries, the cycle, scope, and quality of inspections, as well as how the agency follows up on findings, including the use of enforcement actions.

142. **The assessor relied on:** (i) a self-assessment developed by SEBI; (ii) the review of laws and other relevant documents provided by the authorities including annual reports; (iii) meetings with the Chairman of SEBI and other members of the Board, staff of SEBI as well as RBI, and other public authorities, in particular representatives of the MoF and Ministry of Corporate Affairs (MCA); and (iv) meetings with market participants, including issuers, brokers, merchant bankers, fund managers, stock exchanges, external auditors, credit rating agencies, and law firms.

143. **The assessor thanks SEBI for its full cooperation** as well as its willingness to engage in very candid conversations regarding the regulatory and supervisory framework in India. The assessor also extends her appreciation to all other public authorities and market participants with whom she met.

C. Institutional Structure

144. **The regulation and supervision of the securities market in India is mainly the responsibility of SEBI.** SEBI was set up under the SEBI Act, 1992, with a mandate to protect the interest of investors and to regulate and promote the development of the securities market. The responsibilities of SEBI are stated by law, in particular: (i) the SEBI Act; (ii) the Securities Contract (Regulation) Act, 1956 (SC(R) Act); (iii) the Depositories Act, 1996; and (iv) the Companies Act, 1956 in respect of listed companies and companies proposed to be listed on RSEs. Based in such statutes SEBI regulates the public offering of equity, debt, and asset backed securities, as well as CIS and the trading of securities and derivatives in RSEs. Finally, it regulates and supervises all intermediaries in the securities market as well as infrastructures providers, including exchanges, central clearing counterparties, and central securities depositories.

145. **MCA and RBI have certain responsibilities in the regulation and supervision of securities markets.** SEBI reviews the prospectus of listed issuers and regulates listed companies in respect of issue, transfer of securities, and nonpayment of dividend. MCA has authority to register and regulate all companies (except listed companies in respect of issue, transfer, and nonpayment of dividend), and it is currently the main authority in charge of reviewing the annual financial reports (including financial statements) that all companies,

including listed issuers, are required to submit pursuant to the Companies Act. RBI has regulatory responsibility over contracts on government securities, gold-related securities, and money market securities (and securities derived from those securities), and repo contracts in debt securities. However, the execution of those contracts on exchanges is under the responsibility of SEBI. Several channels have been created to foster inter-agency coordination though many of them are recent developments and therefore are still evolving.

146. **The RSEs play a key role in self-regulation.** In India RSEs are the listing authorities and thus are in charge of monitoring issuers' compliance with disclosure obligations. Under listing agreement they also operate as the primary regulator and supervisor for brokers. Finally they are in charge of real time surveillance of the markets that they operate. In practice such functions have mainly rested with the two nationwide RSEs, the BSE and the NSE. SEBI has established several mechanisms to ensure robust oversight of RSEs in the discharge of their self-regulatory functions. Such mechanisms include periodic reporting, regular meetings on market developments, and annual onsite inspections. More recently a committee on noncompliance with listing obligations was constituted.

147. **Equity markets in India are sizeable relative to GDP.** As of June 2011, there were 5,025 listed companies in the BSE,²⁴ and market capitalization amounted to 87 percent of GDP. As in many other markets, market capitalization is concentrated—as of 2011, the top 10 companies represented 31 percent of total market capitalization.

148. **Corporate bond markets are less developed but growing.** The bulk of debt offerings are private offerings. Data is available for privately placed issues that are listed on exchanges under The Debt Regulations. In addition, data is available on corporate bonds issued in dematerialized form from the depositories—CDSL and NSDL.

149. **Derivatives markets have grown substantially.** Over the years, the derivatives market segment has generated a turnover substantially higher than that of the cash equity market. Trading in derivatives is dominated by the NSE, which has a share of more than 99 percent of total turnover. Futures in general and single stock futures used to dominate derivatives products; for the last two years the largest share of total derivatives turnover has been in index options, with a 45.5 percent share.

150. **As of March 2010 there were 10,203 brokers authorized to trade on a RSE.**²⁵ Most brokers are licensed in both the NSE and the BSE. The Indian legal system allows

²⁴ The bulk of companies listed in the NSE are also listed in the BSE. Thus for purposes of measuring the importance of equity markets this assessment uses only the number of listed companies and market capitalization of the BSE. On the other hand secondary market trading is concentrated in the NSE.

²⁵ In the context of this assessment, the term “brokers” encompasses all persons licensed by SEBI to carry out investment services, whether in the corporate form or not.

brokers to take the legal form of a corporation or be individuals. In practice, corporate brokers are 90 percent of brokers at NSE and 82 percent at BSE. In addition there were 192 merchant bankers and three underwriters registered with SEBI. Most merchant bankers are also registered as underwriters, thus the limited number of “stand-alone” underwriters. There were also 267 portfolio managers registered with SEBI. Portfolio managers are only authorized to manage individual accounts and cannot pool the money of investors.

151. Equity markets listing and secondary market trading are concentrated in two out of 21 RSEs—the BSE and the NSE. Both RSEs operate anonymous order-driven systems and settlement takes place on a t+2 basis. Clearing in both the NSE and the BSE is done through CCPs. In the case of the NSE, the NSCCL, a wholly owned subsidiary of the NSE, performs CCP services. In the case of the BSE, the Bank of India Shareholding Limited facilitates the settlement process of the equity cash segment and delivery based stock derivatives by coordinating with the clearing banks and depositories as per the directions of the exchange. However, BSE Ltd. acts as the central counterparty and guarantees the settlement for such segments. The ICCL handles the mutual fund segment and the corporate bond segment of BSE Ltd., and currency derivatives segment of USE Ltd.

D. Preconditions for Effective Securities Regulation

152. A few general preconditions for the effective regulation of securities markets requires further strengthening. There are no significant barriers to entry and exit for market participants. Foreign ownership of securities intermediaries is allowed, but investment by foreign investors in Indian issuers and mutual funds must be done through FIIs, which are required to register with SEBI. Since August 2011, SEBI has allowed foreign investors who meet “know your customer” requirements to invest in equity and debt schemes of mutual funds. The Companies Act contains a basic framework for the constitution and operation of corporations that has served the country well but could usefully be updated. In particular, market participants commented that the insolvency regime requires a major overhaul since protracted insolvency proceedings are mentioned as a key weakness of the system. The authorities informed that a Companies Bill 2011 has already been tabled in Parliament. Criminal enforcement in the courts is also a challenge, with protracted procedures mentioned as the main problem. The country is moving toward convergence with (rather than adoption of) IFRS. IFRS equivalent standards have been notified by the central government and ICAI has suggested April 2013 for implementation. Some differences with IFRS remain, and the authorities’ intention is to initiate a dialogue with the International Accounting Standards Board to address such differences. Market participants expressed concerns about the taxation framework, in particular the existence of a securities transaction tax with different percentages for different asset classes, which can distort the natural development of the markets. The authorities informed that the MoF has initiated a review of such tax with a view towards rationalization of securities transaction tax percentages. Finally, there are general concerns about the level of corruption in the country. The creation of an independent anticorruption agency is currently being discussed in parliament.

E. Main Findings

153. **Principles for the regulator** (1–5): SEBI’s responsibilities are clearly established by law. Several mechanisms have been developed to foster coordination among SEBI and other domestic authorities. Many of them are of recent creation and therefore still evolving. In practice, SEBI has acted with a high degree of independence from both governmental and commercial interest. SEBI has broad licensing, supervision, investigation, and enforcement powers. SEBI faces challenges in regard to the number of staff vis-à-vis the size of the market, as well as its capacity to hire personnel with market experience, especially at the senior level. The development of regulations is subject to public consultation. Licensing requirements are established by regulations which are all available in SEBI’s website. Parties affected by a decision of SEBI have a right to appeal. There is a code of conduct for staff that includes provisions on use of information, transactions in securities, gifts, and cool-off periods. There are separate provisions for Board members.

154. **Principles for enforcement** (8–10): SEBI has broad authority to request information, testimony, and conduct inspections on regulated entities. SEBI also has broad authority to request information and testimony from third parties. SEBI has broad enforcement powers over both regulated entities and third parties. It can impose a wide range of measures and sanctions including cease and desist orders, money penalties, and disgorgement. Onsite inspection plans require further strengthening, in particular for securities intermediaries, and so does enforcement of listing obligations by issuers and of accounting and auditing standards. While the law provides for strong criminal penalties, in practice effective criminal enforcement has focused on CIS cases.

155. **Principles for cooperation** (11–13): SEBI’s Act provides SEBI with the authority to cooperate and share public and nonpublic information with domestic and foreign authorities, without limitations. SEBI is signatory of the IOSCO MMOU and several bilateral MOUs, and has demonstrated that in practice it cooperates effectively with other foreign regulators.

156. **Principle for issuers** (14–16): Public offering of securities is subject to disclosure requirements, mainly in the form of a prospectus the content of which is broadly in line with the IOSCO principles. SEBI reviews all prospectuses of equity issuers, and the RSEs review those of debt issuers. There are periodic requirements on listed companies, including to promptly disclose material events. Mechanisms to ensure compliance with listing obligations, which include periodic reporting, are a responsibility of the RSEs. Such mechanisms have limitations. A committee on noncompliance of listing agreement has recently been set up to address this issue. Issuers are required to submit their financial statements according to local accounting standards, and auditors are required to conduct their audits based on local auditing standards. Current mechanisms to ensure compliance with accounting and auditing standards including auditors’ independence have limitations.

157. **Principles for collective investment schemes (17–20):** There are robust registration requirements for sponsors and the asset management companies that manage mutual funds. Individuals who want to sell CIS are subject to a certification process. Mutual funds and asset management companies are subject to offsite reporting. Starting in 2011/12, SEBI has enhanced its supervisory approach whereby inspections are carried out directly by SEBI staff under a risk-based approach, and thematic inspections are becoming an integral part of the supervisory plan. Asset management companies must submit a prospectus for every mutual fund scheme that they want to manage, the content of which is broadly in line with the IOSCO principles. Assets of mutual funds must be entrusted to an independent custodian. There are clear rules on valuation, including detailed guidelines for valuation of illiquid securities. In the case of debt, assets must be valued using the prices provided by independent third parties. Asset management companies are responsible to investors for errors in valuation.

158. **Principles for market intermediaries (21–24):** There are robust registration requirements for all types of securities intermediaries. However in the case of brokers, the RSEs do not conduct visits in connection with registration. Portfolio managers have not been subject to regular inspections but are subject to inspection every three years upon renewal of registration, and only this year SEBI implemented a more comprehensive inspection program for merchant banks. For all types of intermediaries inspections have been compliance based, and follow up of findings of inspections reports should be strengthened. All types of intermediaries except merchant banks and underwriters must submit semiannual audits of their internal controls and risk management systems. All types of intermediaries must appoint compliance officers. The RSEs have established early warning mechanisms for brokers as well as detailed provisions to deal with their failure.

159. **Principles for secondary markets (25–30):** Only RSEs can operate in India, subject to recognition by SEBI. Recognition requirements are robust and include economic resources and certifications of IT systems, among others. The RSEs have established robust mechanisms for market surveillance, which are complemented by SEBI's own surveillance system. Market manipulation, insider trading, and other unfair practices constitute both civil infractions and criminal offenses. The RSEs have robust mechanisms to monitor large exposures by members. A system of Market-Wide Circuit Breakers and Securities Level Price Bands has been put in place.

Annex Table 9. India: Summary Implementation of the IOSCO Objectives and Principles of Securities Regulation

Principle	Findings
Principle 1. The responsibilities of the regulator should be clearly and objectively stated	SEBI is the main authority responsible for the regulation and supervision of securities markets. Its responsibilities are clearly stated in different legal statutes. MCA and RBI have some limited responsibilities stemming from laws and notifications from the central government. The RSEs also have a critical role in self-regulation. Different mechanisms have been set up to foster coordination, including several committees. Many of them are of recent creation, thus still evolving.
Principle 2. The regulator should be operationally independent and accountable in the exercise of its functions and powers	The possibility that Board members can be removed without cause is a threat to independence, as well as the existence of a very general provision that allows the central government to provide directions to SEBI and supersede SEBI's Board. However in practice SEBI has acted with a high degree of independence from both governmental and commercial interests. SEBI is required to provide annual reports to the central government and parliament, and its accounts must be audited on an annual basis by the Comptroller and Auditor General of India.
Principle 3. The regulator should have adequate powers, proper resources and the capacity to perform its functions and exercise its powers	SEBI has broad licensing, supervision, investigation, and enforcement powers. SEBI faces challenges in regard to the number of staff vis-à-vis the size of the market and its ability to hire staff with market experience, the latter mainly due to salary limitations. Whole time members carry a critical role of overseeing day-to-day operations of the institution.
Principle 4. The regulator should adopt clear and consistent regulatory processes	Issuance of regulations by SEBI is subject to public consultation. In addition, SEBI has established consultative committees where the views of different stakeholders are taken into consideration. Requirements for licensing/registration are established by regulations, which can all be found on SEBI's website. Parties aggrieved by a decision of SEBI have a right to appeal before the securities appellate tribunal.
Principle 5. The staff of the regulator should observe the highest professional standards	There is a code of conduct that applies to all staff. Such code establishes clear guidelines in regard to use of information, transactions in securities, gifts, and cooling off periods. There are separate rules for Board members, which impose further disclosures on them, as well as additional requirements in regard to management of conflict of interest.
Principle 6. The regulatory regime should make appropriate use of SROs that exercise some direct oversight	The RSEs are the listing authorities, the front line regulators and supervisors for brokers, and have also a role in market surveillance.

Principle	Findings
responsibility for their respective areas of competence and to the extent appropriate to the size and complexity of the markets	
Principle 7. SROs should be subject to the oversight of the regulator and should observe standards of fairness and confidentiality when exercising powers and delegated responsibilities	RSEs require recognition from SEBI, which can impose conditions to grant such recognition. In practice such conditions have included provisions to ensure that conflict of interest in relation to the self-regulatory role are adequately addressed by, for example, requiring independent members on the Board, as well as specialized committees to discharge self-regulatory functions. All bylaws of the RSEs are subject to SEBI's approval. SEBI has established a robust oversight regime for the RSEs in the performance of their self-regulatory role, which includes offsite reporting, meetings, and onsite inspections, the latter on an annual basis.
Principle 8. The regulator should have comprehensive inspection, investigation and surveillance powers	SEBI has broad powers to request information, testimony, documents, as well as to inspect all types of regulated entities.
Principle 9. The regulator should have comprehensive enforcement powers	SEBI has broad powers to request information, testimony, and documents from third parties, including bank records. It also has broad civil enforcement powers over both regulated entities and third parties. Such civil enforcement powers include the authority to impose a wide range of measures and sanctions, such as cease and desist orders, money penalties, disbars, and disgorgement.
Principle 10. The regulatory system should ensure an effective and credible use of inspection, investigation, surveillance and enforcement powers and implementation of an effective compliance program	SEBI has established a system of offsite supervision for all intermediaries. There are important limitations in the system of onsite inspections, in particular for securities intermediaries, although SEBI is in the process of implementing changes that would allow it to have a more comprehensive risk-based approach to supervision. SEBI, along with the RSEs, has established a robust system of market surveillance. The supervision of the RSEs is also robust. SEBI has demonstrated that it is active in civil enforcement, in particular in regard to unfair trading practices. Enforcement of listing obligations, currently mainly a responsibility of the RSEs, requires further strengthening, and so does enforcement of accounting and auditing standards. Criminal enforcement also needs to be stepped up.
Principle 11. The regulator should have the authority to share both public and nonpublic information with domestic and foreign counterparts	SEBI Act provides SEBI with the authority to cooperate with domestic and foreign authorities and to share both public and nonpublic information.

Principle	Findings
Principle 12. Regulators should establish information sharing mechanisms that set out when and how they will share both public and nonpublic information with their domestic and foreign counterparts	Several mechanisms to foster coordination and exchange of information have been established at the domestic level. Some of them are of recent creation, thus still evolving. SEBI is signatory of the IOSCO MMOU, as well as other bilateral MOUs, and has been active in providing information to foreign counterparts.
Principle 13. The regulatory system should allow for assistance	SEBI Act grants SEBI the authority to provide assistance to foreign regulators even if the information requested by them is not currently in its
to be provided to foreign regulators who need to make inquiries in the discharge of their functions and exercise of their powers	files. SEBI has provided examples that it has done so.
Principle 14. There should be full, timely and accurate disclosure of financial results and other information that is material to investors' decisions	All public offers are subject to the submission of a prospectus, the content of which is broadly in line with IOSCO requirements. SEBI reviews all prospectuses from equity issuers, while prospectuses from debt issuers are reviewed by the RSEs. Listed companies are subject to periodic reporting, including annual reports, quarterly reports (equity issuers), and semiannual reporting (debt issuers). All listed companies must also inform their RSE immediately of material events. The Listing Agreement provides guidance as to the type of events that should be disclosed promptly. Ensuring compliance with all such listing obligations is mainly a responsibility of the RSEs. However, the current arrangements developed by the RSEs have important limitations. A committee on noncompliance was set up to address this issue.
Principle 15. Holders of securities in a company should be treated in a fair and equitable manner	SEBI's regulations require disclosure to the public of significant holdings (starting at five percent) as well insiders' holdings. They also require a mandatory tender offer for the acquisition of control (after certain thresholds). The acquirer must submit an offering document, which is subject to SEBI's approval. The current regulations do not allow the acquirer to pay promoters a higher price for their shares as used to be the case prior to a recent reform. However a difference remains as the regulations allow agreement with promoters whereby in the event of a partial offer, the acquirer can acquire the complete holding of the promoters.
Principle 16. Accounting and auditing standards should be of a high and internationally acceptable quality	Issuers are required to submit their financial statements according to Indian accounting standards. The intention of the central government is to move toward IFRS equivalent standards. Auditors are required to carry out their audits according to Indian auditing standards. The intention of the central government is to move to international standards. Currently the review of financial statements

Principle	Findings
	of listed companies is mainly a responsibility of the MCA. However, information is insufficient to assert whether such review is conducted effectively, nor whether enforcement actions are being taken when necessary. Currently there is no independent mechanism to oversee compliance by auditors with auditing standards. The ICAI has performed a disciplinary role over them. The government created a new institution, the Quality Review Board, to oversee the quality of auditors' work, but such entity is not yet operational and it is not clear whether it would meet the independence requirement of the IOSCO Principles.
Principle 17. The regulatory system should set standards for the eligibility and the regulation of those who wish to market or operate a collective investment scheme	There are robust standards for the eligibility of sponsors and asset management companies, as well as the individuals who sell the products. Mutual funds and asset management companies have been subject to offsite reporting. Until this year all mutual funds were supervised every two years by external auditors. Starting in 2011/12 SEBI has changed its supervisory approach whereby inspections are to be carried out directly by SEBI staff under a risk-based approach, and the mutual funds that pose the greater risk to the system will be inspected on an annual basis. In addition, thematic inspections are becoming an integral part of the inspection plan. SEBI has used primarily warnings and letters of deficiency to address findings from inspection reports, although in a few cases "harder" measures, such as disgorgement and payment of money under consent proceedings, have been imposed.
Principle 18. The regulatory system should provide for rules governing the legal form and structure of collective investment schemes and the segregation and protection of client assets	There are clear rules concerning the legal form and structure of CIS. Currently all CIS are constituted as trusts. There are also clear rules on segregation of assets, including the requirement of an independent custodian.
Principle 19. Regulation should require disclosure, as set forth under the principles for issuers, which is necessary to evaluate the suitability of a collective investment scheme for a particular investor and the value of the investor's interest in the scheme	The asset management company is required to submit a prospectus to SEBI for each CIS, the content of which is in line with the IOSCO Principles. SEBI reviews all such prospectuses.
Principle 20. Regulation should ensure that there is a proper and disclosed basis for assets valuation and the pricing and the redemption of units in a collective investment scheme	There are clear rules on valuation of assets, including illiquid assets. For illiquid debt securities, the guidelines require that asset management companies value the portfolios using prices provided by an independent party (currently the credit rating agencies). Asset management companies are responsible to cover errors in pricing.

Principle	Findings
Principle 21. Regulation should provide for minimum entry standards for market intermediaries	There are robust registration requirements for all types of securities intermediaries. For all cases except brokers, such registration is carried out by SEBI and includes a visit to verify that all systems and controls are in order. In the case of brokers, the registration process is carried out on the recommendation of RSEs. The RSEs do not conduct visits in connection with such registration. There is a system of offsite reporting for all intermediaries. A comprehensive and regular plan for onsite inspections of portfolio managers has not been in place. Only this year a more comprehensive inspection plan for merchant bankers started to be implemented. Brokers have been subject to annual inspections by the RSEs. Inspections have been compliance based, and thematic inspections have not been a regular part of the supervisory approach.
Principle 22. There should be initial and ongoing capital and other prudential requirements for market intermediaries that reflect the risks that the intermediaries undertake	All intermediaries are subject to minimum capital requirements depending on the license they want to hold, which they should keep at all times. There are no additional requirements to adjust capital by risk. However, in practice risks exposures appear to be limited, in light of the current business models of different types of intermediaries.
Principle 23. Market intermediaries should be required to comply with standards for internal organization and operational conduct that aim to protect the interests of clients, ensure proper management of risk, and under which management of the intermediary accepts primary responsibility for these matters	All intermediaries, with the exception of merchant bankers and underwriters, are required to have independent audits of their internal control and risk management systems, on a semiannual basis. In addition, all intermediaries are required to appoint a compliance officer. All intermediaries are required to have in place a system to address investors' complaints. Intermediaries are required to sign contracts with investors when starting a business relationship, and to provide them with information on the status of their investments on a semiannual basis. Know your customer and suitability obligations apply.
Principle 24. There should be a procedure for dealing with the failure of a market intermediary in order to minimize damage and loss to investors and to contain systemic risk	The RSEs have established early warning mechanisms and have detailed provisions to deal with the failure of brokers. Such provisions do not exist in the case of other intermediaries. However, there are strong rules on segregation of assets, and SEBI has broad powers to deal with the failure of such intermediaries.
Principle 25. The establishment of trading systems including securities exchanges should be subject to regulatory authorization and oversight	Only RSEs can operate in India, subject to recognition by SEBI. Recognition requirements include financial resources and certifications by experts of the robustness of their IT systems, among others. All rules of the RSEs have to be approved by SEBI. SEBI has broad powers over the RSEs including suspension, and power to revoke the authorization.

Principle	Findings
Principle 26. There should be ongoing regulatory supervision of exchanges and trading systems, which should aim to ensure that the integrity of trading is maintained through fair and equitable rules that strike an appropriate balance between the demands of different market participants	The RSEs have established robust market surveillance systems. They monitor the market in real time. Given the plurality of trading platforms, SEBI has established its own surveillance system to complement the role of the RSEs. SEBI conducts its surveillance on t+1. There is evidence that the RSEs are active in investigations, and so is SEBI.
Principle 27. Regulation should promote transparency of trading	RSEs are required to have both pre- and post-trade transparency not only vis-à-vis other market participants but also vis-à-vis the public.
Principle 28. Regulation should be designed to detect and deter market manipulation and other unfair trading practices	Market manipulation, insider trading, and other unfair practices are by law both a civil infraction and a criminal offense. Parallel proceedings are allowed. Together with the exchanges, SEBI has established a robust system of market surveillance, which is also helped by the fact that all customers are required to have one single number for purposes of transacting in the securities markets. Criminal enforcement needs to be stepped up.
Principle 29. Regulation should aim to ensure the proper management of large exposures, default risk and market disruption	The RSEs, through the CCPs, monitor exposures on a real time basis. They have robust powers to deal with exposures, including setting limits. Brokers are required to post initial and variation margin and to contribute to a settlement fund. A system of Market-Wide Circuit Breakers and Securities Level Price Bands has been put in place.
Principle 30. Systems for clearing and settlement of securities transactions should be subject to regulatory oversight, and designed to ensure that they are fair, effective and efficient and that they reduce systemic risk	Not assessed.

Appendix Table 10. India: Recommended Action Plan to Improve Implementation of the IOSCO Principles

Principle	Recommended Action
Principle 1	<ol style="list-style-type: none"> 1) SEBI should continue to strengthen coordination by: <ul style="list-style-type: none"> • In the context of coordination with MCA: strengthening mechanisms for cooperation in the review of prospectuses and periodic reporting, including enforcement actions. • In the context of coordination with the RSEs: determining whether additional reporting from the RSEs in connection with listing obligations would be beneficial, including any enforcement action. • In the context of financial groups: determining whether regular exchange of inspections reports should take place, as well as whether there is a need to share on a periodic basis other type of information 2) The differences in regulatory treatment of NBFCs vis-à-vis regulated entities or intermediaries should be eliminated.
Principle 2	<ol style="list-style-type: none"> 1) SEBI's Act should be amended to remove the provision on termination of services of Board members of SEBI without due cause as contained under section 5(2) of that Act. 2) The central government should clarify that the authority to give directions to SEBI should not be construed as to give the MoF the authority to supersede SEBI's decisions on individual cases, in either licensing, supervision, or enforcement 3) The authorities should review whether participation of the MoF in the joint mechanism to decide on hybrid products could be a threat to independence. 4) SEBI should explore whether more detailed provisions to protect Board members and staff should be put in place. 5) SEBI might wish to explore whether mechanisms for non-binding consultation of fees and discussion of the budget with regulated entities would be beneficial.

Principle	Recommended Action
Principle 3	<ol style="list-style-type: none"> 1) SEBI should analyze whether current resources are sufficient, in particular in the area of supervision. 2) In addition, SEBI should consider whether additional incentives could be put in place to make salaries more competitive at a senior level with the overall objective of bringing more staff with market experience at different levels of the organization, including at the Board level.
Principle 4	SEBI might wish to explore the creation of an internal audit unit.
Principle 5	SEBI should consider developing more comprehensive regulations on conflict of interest for its staff, in light of the fact that many regulatory decisions are delegated at levels of the organization different from Board members.
Principle 7	SEBI should continue to strengthen arrangements to address the conflicts of interest of the “for profit” model of the RSEs vis-à-vis their self-regulatory functions, as discussed in the assessment.
Principle 9	<ol style="list-style-type: none"> 1) SEBI’s Act should be amended to explicitly provide investors with a private right of action. 2) The authorities might wish to consider amending SEBI’s Act to provide SEBI with the authority to access telephone records, subject to judicial approval.
Principle 10	<ol style="list-style-type: none"> 1) SEBI should strengthen its current program for the supervision of securities intermediaries as discussed under this Principle. 2) Enforcement of compliance with listing obligations by RSEs should also be strengthened. The committee on noncompliance with listing obligations is a step in such direction. 3) Criminal enforcement needs to be stepped up. In such context, the authorities should explore whether a similar arrangement to that existent for CIS could be extended to other types of securities offenses.
Principle 11	The authorities might wish to consider amending SEBI’s Act to make explicit the power of SEBI to share information with foreign counterparts.
Principle 14	<ol style="list-style-type: none"> 1) Enforcement of compliance with listing obligations by RSEs should be strengthened. The committee on noncompliance with listing obligations is a step in such direction. 2) SEBI along with the RSEs should review whether current arrangements to review material events should be strengthened.

Principle	Recommended Action
Principle 15	SEBI should reform the tender offer regulations in order to ensure that all investors get equal exit opportunity in terms of the percentage of their holding that they can tender.
Principle 16	<p>Coordination with MCA for purposes of ensuring compliance by issuers with accounting standards should be enhanced. The recently created coordination committee is a step in such direction. In the long term the authorities should review whether all functions related to listed companies should be vested in SEBI.</p> <ol style="list-style-type: none"> 1) Qualified statements should not be permitted. 2) Mechanisms to enforce compliance with auditing standards should be strengthened. The Quality Review Board is a step in such direction. The authorities should examine whether it could be considered independent. 3) The framework for auditor's independence should be expanded. SEBI informed that the Companies bill would address this gap. 4) The authorities should finalize implementation of IFRS equivalent standards.
Principle 17	<ol style="list-style-type: none"> 1) SEBI should continue the implementation of a risk-based supervisory program for mutual funds (and their asset management company) as detailed in this assessment. 2) SEBI might wish to consider whether additional guidance in relation to the definition of CIS is needed.
Principle 20	SEBI might wish to consider whether price vending activity should be regulated and therefore whether specific regulations should be prescribed on entities currently performing such services.
Principle 21	<ol style="list-style-type: none"> 1) SEBI should strengthen its current program for the supervision of securities intermediaries as discussed under Principle 10. 2) SEBI should consider directing the RSEs to conduct onsite visits in connection with the registration of new members (either during the registration process, or within a short period after the license is granted). SEBI should also review whether current resources allocated by the RSEs to inspection of broker-dealers are sufficient.
Principle 22	<ol style="list-style-type: none"> 1) SEBI should consider moving to a risk-based capital system. 2) In tandem, SEBI should review prudential requirements reporting for intermediaries different from brokers.
Principle 23	<ol style="list-style-type: none"> 1) The requirement of an independent verification of internal controls and risk management on a periodic basis should be extended to merchant banks and underwriters. 2) SEBI should incorporate more directly the review of internal controls and risk management as part of its inspections program. In addition, more comprehensive guidelines on internal controls and risk

Principle	Recommended Action
	<p>management would be beneficial, especially if SEBI moves to a risk-based capital.</p> <p>3) SEBI should continue to provide incentives for the reduction of the backlog by intermediaries in regard to investors' grievances.</p>
Principle 24	<p>1) The RSEs along with SEBI should make operational and test current default procedures.</p> <p>2) SEBI should consider developing a plan to deal with the failure of entities other than brokers.</p>
Principle 28	Criminal enforcement of market manipulation and other unfair practices should be strengthened.

F. Authorities' Response to the Assessment

160. SEBI would like to appreciate the effort and time that is put in by IMF and World Bank team to assess the Indian securities markets. The IMF and World Bank assessment recognizes that the regulatory and supervisory regime for securities market is well developed and largely in compliance with international standards. We see from the report that assessor has also applied higher standards than which is given in IOSCO principles. We are grateful for the opportunity to provide the following comments regarding the FSAP report.

161. The report recognizes that SEBI has built the reputation of a credible enforcement agency. In the report, it has been suggested that the SEBI should focus on the strengthening of the supervision of securities market intermediaries including fund managers. One of the challenges faced by the authorities is the sheer number of the intermediaries operating in the securities market such as brokers (19,557), sub-brokers (78,228), foreign institutional investors (1,767), merchant bankers (199), portfolio managers (246), custodians (19), depository participants (823), etc., as on December 2011. Onsite inspections of brokers are primarily a responsibility of the RSEs. The RSEs have developed a risk based approach to determine the intensity of the inspections. To this end, brokers have been divided in three categories based on a set of criteria that includes among others trading volume, number of clients, funds settled and number of complaints. The enforcement actions taken by regulator are very high compared to other jurisdictions. During 2010–2011 the total numbers of enforcement actions initiated were 958 and the total number of enforcement actions disposed was 1,803. Further, the total number of half-yearly internal audit reports by the brokers that have to be submitted are 979 for BSE and 1,212 for NSE as on March 31, 2011.

162. In respect of mutual funds, SEBI has laid down two-tier supervision system. At the first level by the trustees of mutual funds which supervise the day-to-day operations of mutual funds and compliance with the regulations, investment restrictions and objectives in the scheme document by the asset management company. The comprehensive guidelines for mutual funds are issued by SEBI (i.e., SEBI (Mutual Fund) Regulations, 1996 and circulars

issued there under) to provide that mutual funds shall be authorized and registered for business by SEBI. The asset management company has to keep minimum net worth not less than rupees ten cores. The asset management companies are required to periodically report regarding its operations/activities and make such disclosures to SEBI as may be called upon. As per the extant policy of SEBI regarding inspection of mutual funds, a more risk-based approach has been adopted. The inspections are undertaken based on assets under management and other factors including number of complaints received against the mutual fund. Inspections are also done on discretionary basis based on issues identified in previous inspection reports or regulatory filings.

163. The assessment also suggests for developing better mechanism to ensure better auditing and accounting standards. The provision of the Companies Act and Chartered Accountants Act provide a framework to maintain objectivity and integrity of accounting and audit. The Government has created Quality Review Board for reviewing the quality of auditors which is already in operation. During the Satyam scam in 2009, SEBI also conducted peer review on the audits of top 50 companies. The new Companies Bill, 2011 placed before the Parliament on December 14, 2011 contains provisions for establishment of an independent agency, National Financial Reporting Authority, to oversee the functions of Auditors (Clause 132 of the Bill). National Financial Reporting Authority (NFRA) will ensure scrutiny and compliance of accounting and auditing standards. NFRA is independent of audit professionals. It will also ensure quality of service of professionals associated with compliance and monitoring of corporate financial management. NFRA will have quasi-judicial powers to levy penalty for misconduct on auditors, etc. It can order investigation, levy penalty, and bar professionals from practice in case of their indulgence in professional or other misconduct. A review of the compliance of the corporate governance norms was carried out based on the reports filed by the listed companies, during the period January 2006 to March 2007, at BSE and NSE. Based on the identified criteria adjudication proceedings were initiated against five public sector undertakings and 15 private sector companies.

164. India is one of the first countries in the world where the first demutualised exchanges were set up. The NSE started functioning as demutualised stock exchange in November 1994. Subsequently, the BSE was also demutualised in the year 2004. These exchanges are managed by professionals who are independent of members as well as shareholders. The demutualised and for-profit exchanges have their own challenges such as discharging regulatory functions in respect of members and market by exchanges that are commercial entity and may be listed in stock exchanges. Normally surveillance is conducted by the exchanges. However, in India SEBI has also setup Integrated Market Surveillance System, which generates alerts arising out of unusual market movements. The Integrated Market Surveillance System provides assistance to SEBI in monitoring the market and in discharging its regulatory functions effectively. The system is being used for detecting aberrations, analyzing them and identifying the cases for investigation and for taking further action, wherever warranted. It is also being used for monitoring the activities of market participants as well as issuing suitable instructions to stock exchanges and market participants. Wherever

required, findings enabled by the Integrated Market Surveillance System are shared with stock exchanges for appropriate action ensuring that stock exchanges continue to act as the first level regulator for proactively detecting and examining abnormal trading pattern. SEBI has constituted a committee under Chairmanship of Dr. Bimal Jalan, former Governor of RBI, on February 8, 2010 to examine issues arising from the ownership, governance and listing of stock exchanges. The committee submitted its report on November 23, 2010 which is under consideration of SEBI.

165. As regards criminal enforcement, India being a democratic country follows criminal justice system where a person is treated as innocent till he is proved guilty. The enforcement agency has to prove the guilt of the person beyond reasonable doubt and the standard of proof is very high. The civil/criminal courts cases pending are 59 as on March 31, 2011.

166. The Principle 10 assesses the effective and credible use of inspection or enforcement powers. It is observed that the assessor while assessing the overall effective and credible use of inspection and enforcement powers has given their rating in Principle 10. In addition, it is observed that the element of inspection and enforcement powers has also been again taken into consideration while giving rating for purpose of Principles 14, 16, 17, 21, and 28. It is for consideration whether the Principles such as 14, 16, 17, 21, and 28 should be primarily assessed as per the principle on the key questions for each of such principle or need to be rated or judged on basis of adequacy or effectiveness of enforcement for which a separate principle has been earmarked.

167. All the intermediaries who operate in the Indian securities market are mainly engaged in fee based activities. These are intermediaries or pass-through entities and the risk is mainly borne by the investors. SEBI has specified both initial and continuing minimum net worth requirements for the various intermediaries. In case of trading by any client or fund-based activity by an intermediary such as broker who engages in proprietary trading, they have to bring margins (i.e., initial margins, extreme loss margins, and mark-to-market losses) or additional deposit depending on exposure or risk and are subject to monitoring and risk management by the stock exchanges. The observations that there is no additional requirement to adjust by risk fail to take into account the business model and the risk management system adopted by the stock exchange. SEBI has specified a comprehensive risk management framework to be followed by the stock exchanges the salient provisions of which include categorization of securities for imposition of margins into groups based on liquidity and volatility of the scrip, as also adjustments of margins from the liquid assets deposited by members.

ANNEX IV. IMPLEMENTATION OF THE CPSS-IOSCO RECOMMENDATIONS FOR SECURITIES SETTLEMENT SYSTEMS AND CENTRAL COUNTERPARTIES

A. Information and Methodology Used for the Assessment

168. **The present document is the assessment of securities and derivatives clearing and settlement systems in India** based on the CPSS-IOSCO Recommendations for Securities Settlement Systems (RSSS) and Recommendations for Central Counterparties (RCCP). This assessment was conducted as part of the FSAP in September 2011.

169. **The information used in the assessment includes relevant laws, bylaws, regulations, rules and procedures governing the systems, and other material.**²⁶ Extensive discussions were held with regulators, overseers, supervisors and operators, being RBI, SEBI, Forward Market Commission (FMC), CCIL, NSE, BSE, USE, MCX, MCX-SX, NSCCL, ICCL, NSDL, CDSL, and several stakeholders, including primary dealers, banks, and broker-dealers active on the government securities market, the corporate securities market, and the derivatives markets in India, as well as clearing banks that facilitate cash settlement for corporate securities and derivatives. A self-assessment was prepared by CCIL. The Indian self-assessment concluded in 2009 included payment and securities clearing and settlement systems.

B. Institutional and Market Structure

170. **The securities and derivatives clearing and settlement systems in India are organized around different types of products:** (i) government securities, money market instruments, and foreign exchange instruments; (ii) corporate securities and financial derivatives; and (iii) commodity derivatives. The scope of this assessment is limited to the clearing and settlement systems for the first two sets of products. The sets are subject to different legal frameworks, different regulatory arrangements, and clearing and settlement systems are operated by different entities. The different securities and derivatives clearing and settlement systems handle a large number of transactions and are as such of systemic importance. Volumes in the derivatives segments increased strongly during the last years. Given the growth and volumes of the commodity derivatives market it is recommended that a detailed self-assessment by the FMC and/or an independent assessment of the commodity derivatives clearing and settlement systems be considered in the immediate future.

171. **Government securities are cleared by the CCIL and settled in the books of the PDO system of RBI.** Money market and foreign exchange instruments are also cleared by CCIL. Cash settlement takes place in the RTGS system of the RBI. CCIL guarantees the

²⁶ Other material included annual reports, RBI's and SEBI's responses on the FSAP questionnaire for securities clearing and settlement systems, websites from the regulators, overseers, supervisors, operators and stakeholders, and other relevant documents.

settlement of the transactions and as such acts as CCP. RBI is the regulator and overseer, based on the Payment System and Settlement Act of 2007.

172. Corporate securities and financial derivatives are traded on the NSE, BSE, USE, MCX-SX, and 17 regional exchanges. Corporate securities and financial derivatives traded on the NSE are cleared by the NSCCL. Corporate securities and equity derivatives traded on the BSE are cleared by the BSE, except for mutual funds and corporate bonds, which are cleared by ICCL. The ICCL also clears currency derivatives traded on the USE. The transactions executed on the trading platform of MCX-SX are cleared and settled by the MCX-SX Clearing Corporation Limited (MCX-SX CCL). NSCCL, BSE, ICCL, and MCX-SX CCL act as CCP for corporate securities and derivatives. The securities leg of transactions is settled in the NSDL and CDSL. The cash leg is settled in one of the commercial banks that act as clearing bank for the exchanges. SEBI is the regulator and supervisor of these stock exchanges, including its clearing and settlement systems.

C. Main Findings

173. In general, the risk management framework for the securities and derivatives clearing and settlement systems in India is prudent, the operational reliability is high and the regulation and oversight functions are effective. The National Payments System in India has undergone a major reform over the last two decades, in particular the securities and derivatives clearing and settlement systems. These systems are comprehensive and designed to minimize risks in the rapidly developing securities and derivatives markets. In addition, the RTGS system, implemented in 2004, has provided an effective system for settlement of large value transactions including for the cash leg of government securities transactions.

174. The regulation and oversight of all systems should be improved by implementing formal arrangements for information sharing and policy coordination among regulators. Securities and derivatives market regulators and overseers are encouraged to cooperate in a consistent and formalized way to ensure the overall safety and efficiency of the market infrastructure. RBI (as overseer of CCIL and the PDO CSD) and SEBI (as supervisor of the corporate securities market) cooperate with each other on various matters in various *fora*. The cooperation on payment and securities clearing and settlement systems is, however, not formalized. No explicit agreements are in place with regard to information sharing or coordination of policy implementation. The overall quality of the oversight and supervision of payment and securities clearing and settlement systems would be enhanced if RBI and SEBI met regularly on a technical and higher level, and had formal arrangements for information sharing and policy coordination. Relevant topics include improvements in liquidity risk management of CCPs, an orchestrated approach to crisis management and default plans, settlement in central bank money, and increasing the use of government securities as collateral to cover positions in corporate securities and derivatives. In addition,

RBI and SEBI are strongly encouraged to include the FMC in regular meetings, since many of the above-mentioned issues are of relevance to the supervisor of the commodities market.

175. The crisis management procedures of all systems should also be improved, as part of the operational risk management. The operational reliability of the systems is high and Business Continuity Planning and Disaster Recovery sites are in place. The readiness to respond to a crisis in an orchestrated manner would, however, benefit from the establishment and regular testing of detailed crisis management plans. All systems test the connectivity to their back-up sites on a regular basis together with participants. It is important that crisis management plans be in place that include detailed procedures and actions to be taken in case of a major crisis. Such crisis management plans should include the definition of a crisis management team as well as procedures to consult and inform participants and regulators. Crisis management procedures should be tested regularly, for example by simulating stress scenarios that affect the financial and operational soundness of the system.

176. The transparency of all systems can be further improved. The current and forthcoming relevant international disclosure framework should be published on the websites of the different system operators.²⁷ The 2009 assessment results of the Committee on Financial Sector Assessment are available on the internet, however, these results are not updated and not all key questions are answered.

177. The securities market infrastructure in India is segmented by product type, which may raise concerns on the overall efficiency of the capital market. A key concern in this regard is the segregation between the government bond market and the corporate equity and derivative markets, which are not only organized as vertical silos but in practice also prevent stock brokers and retail clients who trade on the stock exchanges to access the market for government bonds. This prevents retail investors to invest in government bonds and thus to access a full range of available investment products. Another drawback of the current segregation is that government bonds are not used by stock brokers and custodians to comply with the margin requirements of CCPs. The multiplicity of systems does not negatively influence the stability of the financial infrastructure. In fact, two CCPs and CSDs for the same products may enhance the stability, since a CCP or CSD may function as a backup in case of problems with the other CCP or CSD.

178. The assessment of the PDO system against the RSSS concludes that the systems are broadly in compliance with the recommendations, with two being not applicable. However, there are improvement opportunities in several areas:

²⁷ International guidance for disclosure framework arrangements is being reviewed in the context of the production of the new CPSS-IOSCO Principles for Financial Market Infrastructures.

- **Legal framework:** The legal framework with regard to the protection of customers' assets will be strengthened by the explicit statement that the assets of a client may not be used to cover any obligations toward a third party in case of the insolvency of the participant in the PDO system.
- **Transparency:** Although participants in the PDO system have access to all relevant information as part of the access process, the RBI website does not contain dedicated information about the PDO system. The Government Securities Regulation and the PDO manual are not in the public domain. The 2009 self-assessment results are available on the internet; however, these results should be updated and all key questions need to be answered. Transparency would increase if the RBI website were to include all relevant information, including an overview of the legal framework, the governance arrangements, and the objectives of the system, to guide potential participants in the PDO system.
- **Protection of customer assets:** No arrangements are available to enable a customer's positions to be moved to a solvent custodian in case of insolvency of its own custodian. It is recommended that these tools be implemented as a further protection of client assets and a means to smoothen the handling of a default of one of the participants in the PDO system.

179. **The assessment of the NSDL and CDSL against the RSSS concludes that the CSDs observe or broadly observe the recommendations, with three being not applicable.** However, there are improvement opportunities in several areas:

- **Legal framework:** Since the Payment and Securities Systems Act is not applicable to stock exchange trading, clearing, and settlement systems, neither are the concepts of finality and netting. Currently, finality and netting for stock exchange transactions are addressed at the level of the bylaws of the NSCCL, BSE, and ICCL. The Securities Contracts Regulation Act, supported by Supreme Court rulings, recognizes these bylaws as a valid basis to organize the functioning of the institutions. Nevertheless, it is recommended that the legal backing for finality and netting of stock exchange transactions be strengthened by addressing these aspects at the level of law.
- **Governance:** The constitution of user groups would give a voice to participants of the NSDL and CDSL that are not included in any of the committees or the Board to further improve its governance.
- **Efficiency:** SEBI may conduct a periodic assessment of the performance of the CSDs to benchmark against international peers and request the CSDs to maintain the fee schedule in an easily comparable format. It is also recommended that the clearing and settlement arrangements in the wholesale segment for corporate bonds be improved. Despite the existence of a delivery versus payment (DvP) model 1 mechanism for

over-the-counter (OTC) traded corporate bonds, the payment and securities transfers have to be initiated by the participant, both in the RTGS system and in the NSDL and CDSL. The participant has to initiate a payment instruction in the RTGS system, which is an automated process. For the securities transfer in some cases a paper form needs to be filled by the participant and sent to the NSDL and CDSL. The efficiency of the DvP process should be enhanced by automating the DvP process, and eliminating the need for (manual) interventions by some of the participants.

- **Communication standards:** The CSDs may consider providing their participants an option to use the International Organization for Standardization (ISO) 15022 and also migrating its interfaces with the clearing corporations to ISO 15022.

180. **The assessment of the CCIL against the RCCP also concludes that the CCP observes or broadly observes the recommendations, with two being not applicable.** However, there are improvement opportunities in several areas:

- **Measurement of credit exposure:** The CCIL needs to be able to calculate its exposures in all segments on an intraday basis, using up-to-date positions and up-to-date prices. It should also be possible to value available collateral based on up-to-date prices and positions on an intraday basis. It is noted that the CCIL has recognized this issue and has taken the initiative to implement proper intraday calculation facilities in some segments.
- **Financial resources:** The liquidity risk management framework of the CCIL should be enforced to ensure that the CCIL is able to sufficiently cope with immediate liquidity demands. It is noted that the CCIL is in the process of developing arrangements with RBI in this regard. Also, comprehensive tests, which include full model and parameter validations, should be performed at least annually. It is recommended that default funds for all segments be established and other risk mitigating tools be developed in order to enlarge the guarantee function of CCIL to situations where the available settlement guarantee fund collateral is insufficient to cover the exposure of CCIL toward a particular participant. This will increase the safety not only of CCIL, but of the whole market.
- **Custody and settlement bank risks:** The CCIL should reduce its concentration risk in the foreign exchange segment by opening a U.S. dollar account in at least one more bank; selecting one more custodian; and selecting one more settlement bank. It is recommended that the frequency and intensity of the monitoring of the financial condition of the different custodian and settlement banks be increased, including the foreign settlement banks. The CCIL should install mechanisms to monitor the financial condition of all banks to which it has exposures on an ongoing basis. The CCIL should develop tools to monitor the concentration of settlement flows among the different settlement banks that provide cash settlement in Indian rupees.

- **Default procedures:** No explicit arrangements exist for the segregation and portability of client accounts in case of a default of one of the clearing participants of CCIL. It is recommended that these provisions be included in the legal framework as well as in the default procedures of the CCIL.

181. **The assessment of the NSCCL, BSE and ICCL against the RCCP concludes that the CCPs broadly observe the recommendations, with two being not applicable.**

However, there are improvement opportunities in several areas:

- **Legal risk:** It is recommended that the legal backing of the clearing and settlement process be improved by addressing the issues of finality and netting at the level of law.
- **Financial resources:** The stress testing procedures of the CCPs should be strengthened. The robustness of the CCPs needs to be increased by improving the liquidity risk management in addition to the management of credit risk. The CCPs should include liquidity aspects in their periodic stress testing and also ensure that their credit lines cannot be revoked. Stress tests should be conducted on a more frequent basis. BSE/ICCL conducts stress tests only on a yearly basis, whereas the assessment of the adequacy of resources in extreme situations should be conducted at least monthly. On a yearly basis comprehensive tests should be performed, which include full model and parameter validation and consideration of scenario choices. The current stress scenarios should include not only the most extreme circumstances during the last year, but also the most volatile periods of the cash and derivative markets during the last few years, preferably the last one or two decades. Stress scenarios should include some appropriate theoretical scenarios as well.
- **Default procedures:** In addition to the default provisions in the bylaws, rules and regulations the CCPs should draft a detailed action plan, with the objective to be able to implement its default procedures in a timely and flexible manner. The action plan may contain the definition of a crisis manager and crisis team, the range of decisions such a crisis manager and crisis team may consider under what conditions and according to what timelines, and the reporting of information to different stakeholders, being regulators, clearing participants, the stock exchanges, CSDs, and clearing banks.
- **Operational reliability:** It is recommended that the recovery time objective be reduced from one day to two hours, which is considered best practice for payment and securities clearing and settlement systems. It is noted that SEBI is currently drafting detailed guidelines on these topics.
- **Money settlements:** The replacement of the commercial bank settlement model with the central bank settlement model should be considered for the medium term.

Corporate securities are settled in commercial bank money, which—in principle—exposes the corporate securities markets to settlement bank risk. Although more than a dozen clearing banks are selected by the stock exchanges, in practice the cash flows are concentrated in very few banks. The systemic importance of these clearing banks is even more significant as they also provide guarantees to the stock exchanges for the collection of collateral from brokers with derivative positions. The failure of one or two clearing banks with a dominant position could seriously affect the stability of the market for corporate securities. Settlement in the RTGS system of RBI for all securities and derivatives trades would mitigate settlement bank risk, reduce the dependency of CCPs on the collateral and liquidity services of clearing banks, and facilitate the role of RBI as lender of last resort. Such a model would require RBI to review and adapt its rules, procedures, services, and staff requirements, but would significantly increase the robustness of the securities and derivatives market infrastructure.

- **Governance:** It is recommended that independent risk committees be established, consisting of internal and external experts that report directly to the Board of the CCPs. The CCPs may benefit from such dedicated risk committees, since they concentrate internal and external risk management expertise and may provide high level and independent advice to the Board on risk management matters. The risk committee may advise on issues such as changes to the margin model, collateral, default procedures, and the clearing of new products.
- **Participation requirements:** It is recommended that small trading members be excluded from membership of the CCPs. Although restrictions exist on the portfolio of such brokers and the risk measures are tight, it is recommended that a tiered system be established in the cash market as is already in place in the derivatives markets. The CCPs will benefit from a structure in which only the largest, most solid brokers are clearing participants of the CCP.

Annex Table 11. India: Recommended Actions to Improve RSSS Implementation—PDO System

Reference Recommendation	Recommended Action
RSSS 1 – Legal Framework	<p>The protection of customers' assets in the PDO from any third-party claims on the participant should be explicitly mentioned in the legal framework.</p> <p>The Government Securities Regulations and the PDO manual could be made available online.</p>
RSSS 17 - Transparency	<p>The responses to the relevant CPSS-IOSCO disclosure framework need to be updated periodically, presented in a more detailed form, and reviewed by RBI more frequently. RBI could also consider developing a dedicated section in its website and publish information on the legal framework, compliance to the standards, results of risk assessments, etc.</p>
RSSS 18 – Regulation and Oversight	<p>The RBI should establish a framework for cooperation with SEBI and FMC to exchange information and coordinate on policy implementation. One option is to use the FSDC structure to realize this cooperation, but other ways may be chosen as well.</p>

Annex Table 12. India: Recommended Actions to Improve RSSS Implementation—NSDL and CDSL

Reference Recommendation	Recommended Action
RSSS 1 – Legal Framework	<p>Topics related to finality, netting, and protection of funds held with custodians should be dealt with at the level of a law or an implementing regulation.</p>
RSSS 18 – Regulation and Oversight	<p>RBI should establish a framework for cooperation with SEBI and FMC to exchange information and coordinate on policy implementation. One option is to use the FSDC structure to realize this cooperation, but other ways may be chosen as well.</p>

Annex Table 13. India: Recommended Actions to Improve RCCP Implementation—CCIL

Reference Recommendation	Recommended Action
RCCP 3 – Measurement and Management of Credit Exposure	The CCIL needs to progress its plans to have an ability to measure its exposure intraday based on up-to-date prices and position in all the segments and also have the ability to manage these exposures.
RCCP 5 – Financial Resources	The liquidity risk management framework needs to be enhanced to enable the CCIL to withstand settlement default of at least the largest participant. The CCIL should perform comprehensive tests at least annually.
RCCP 7 – Custody and Investment Risks	<p>The CCIL should reduce its concentration risk in the foreign exchange segment by opening a US dollar account in at least one other bank in and to select another custodian.</p> <p>The CCIL should institute mechanisms to assess on an ongoing basis the financial soundness of all the banks with which it has exposures, in particular with the domestic and foreign settlement banks.</p>
RCCP 9 - Money Settlements	The CCIL should monitor the concentration of settlement flows for INR settlement, and establish thresholds beyond which it would take measures to reduce the concentration. In the US dollar segment, the CCIL should diversify both for settlement and for custody services and credit lines.
RCCP 15 – Regulation and Oversight	RBI should establish a framework for cooperation with SEBI and FMC to exchange information and coordinate on policy implementation. One option is to use the FSDC structure to realize this cooperation, but other ways may be chosen as well.

Annex Table 14. India: Recommended Actions to Improve RCCP Implementation—NSCCL, BSE, and ICCL

Reference Recommendation	Recommended Action
RCCP 1 - Legal Risk	It is recommended that the legal backing of the clearing and settlement process be improved by addressing the issues of finality and netting at the level of law. In addition, the assessors support SEBI's review of the legal and regulatory framework to streamline the different laws, bylaws, rules, and regulations, which may improve the clarity of the legal system.
RCCP 5 – Financial Resources	<p>In order to comply with this recommendation, the stress testing procedures of the CCPs should be strengthened. It is recommended that:</p> <ol style="list-style-type: none"> 1. The robustness of the CCPs be increased by improving the liquidity risk management in addition to the management of credit risk. The CCPs should include liquidity aspects in their periodic stress testing and also ensure that their credit lines cannot be revoked. 2. Stress tests should be conducted on a more frequent basis. BSE/ICCL conducts stress only on a yearly basis, whereas the assessment of the adequacy of resources in extreme situations should be conducted at least monthly. On a yearly basis comprehensive tests should be performed, which include full model and parameter validation and consideration of scenario choices. 3. The current stress scenarios should include not only the most extreme circumstances during the last year, but also the most volatile periods of the cash and derivative markets during the few years, preferably the last one or two decades. Stress scenarios should include some appropriate theoretical scenarios as well.
RCCP 6 – Default Procedures	In order to comply with this recommendation the CCPs should draft a detailed action plan, with the objective to be able to implement its default procedures in a timely and flexible manner. The action plan may contain the definition of a crisis manager and crisis team, the range of decisions such a crisis manager and crisis team may consider under what conditions and according to what timelines, and the reporting of information to different stakeholders, being regulators, clearing participants, the stock exchanges, CSDs, and clearing banks. This action plan needs to be reviewed every year.

Reference Recommendation	Recommended Action
RCCP 9 - Money Settlements	In order to comply with this recommendation the CCPs should take measures to reduce its dependence on few, large clearing banks that settle the majority of the cash flows. The CCPs should more actively monitor the financial condition of these banks and develop plans to cope with the failure of one or more of the banks. For the medium term it is recommended to replace the commercial bank settlement model with the central bank settlement model. This will significantly reduce the systemically important role of these banks as well as the settlement bank risk to which the market is exposed. Instead the central bank settlement model should be used, with cash settlement in the RTGS system of RBI for all securities and derivatives.
RCCP 15 – Regulation and Oversight	RBI should establish a framework for cooperation with SEBI and FMC to exchange information and coordinate on policy implementation. One option is to use the FSDC structure to realize this cooperation, but other ways may be chosen as well.

D. Authorities' Response

182. SEBI would like to appreciate the effort and time that has been put in by IMF and World Bank team to assess the securities settlement systems and central counterparties in the Indian securities markets. It is felt that the FSAP assessment has taken place at a most opportune time as it has provided us with an opportunity to showcase the architecture of our securities system to the world, especially in the context of the global financial meltdown. In the same breath, we candidly admit that third party assessments and suggestions like the ones provided by the FSAP in this report are also very important to us as it highlights areas that may contribute toward further improvement of the system.

183. Since the last FSAP assessment in 2001, Indian securities market has undergone a sea-change with major improvements in areas of regulatory framework, range of products, growth and reach of market, technology, investor participation, etc. The current FSAP assessment recognizes the significant progress made by SEBI, stock exchanges, clearing corporations, and depositories in the implementation of the IOSCO Principles since the 2001 assessment.

184. SEBI welcomes the recommendations that the legal backing of the clearing and settlement process be improved by addressing the issues of finality and netting at the level of law. SEBI has already taken action to recommend amendments to the Securities Laws to provide for finality of settlement obligations and netting. New laws are also in the process of being issued in order to provide for formal recognition of clearing corporations. Meanwhile the bylaws of the exchange/clearing corporations deem all settlements completed by them as final and irrevocable and support netting. They specify default procedures and provide the

clearing corporation full powers over the collateral placed with the clearing corporation to provide for orderly conduct of the securities settlement process. The applicability of these bylaws have also been upheld by a few Supreme Court rulings—Vinay Bubna Vs. Bombay Stock Exchange, Supreme Court, 1999; and, Bombay Stock Exchange vs. Jaya I. Shah and another, Supreme court, 2004. Novation is supported by the Contract Act. Thus the existing legal framework is time tested and has proven to be robust.

185. The assessment has acknowledged the comprehensive risk management framework prescribed by SEBI as one of the pillars of the Indian securities settlement system. The system of online real-time margining, requirement for participants to deposit liquid collateral with the CCPs, real-time disablement of trading facility of the participants on exhaustion of the collateral, default management procedures including segment-wise settlement guarantee fund to cover the residual risk associated with defaults, inter-linkages between depositories, market-wide circuit filters and security specific price bands, etc, have prevented occurrence of any major defaults in the last decade.

186. SEBI has also taken note of the suggestion of the FSAP mission to “replace the commercial bank settlement model with the central bank settlement model.” The same was also highlighted in the recent FSDC meeting. Suitable market-wide consultation viz. consultation with stock exchanges/clearing corporations, stock brokers/trading members, clearing members and RBI will be undertaken in future to examine the issue.

187. While SEBI agrees with most of the recommendations/suggestions highlighted by the FSAP team in this report, it is felt that the following points will provide better perspective of assessment:

- The assessment has suggested CSDs to maintain the fee schedule in an easily comparable format. It may be noted that SEBI has prescribed requirement to make available details of fees/charges of various services of depositories/depositories participants on the website of depositories for over five years as on date.
- While assessing the observance of RCCP 4 by NSCCL, BSE, and ICCL, the FSAP team has highlighted in the report that *the participants have to pay on a daily basis (T+1) the sum of initial, extreme loss and mark-to-market margin*. It may be noted that the aforementioned description provided by FSAP team does not accurately reflect the strength of the margining system in Indian securities market. Initial and extreme loss margins are adjusted upfront, post-trade, from the collateral deposited by the participants with the CCP. Mark-to-market losses are collected in cash on the same day or latest before trading starts on the next day.
- It is felt that the rating attributed to observance of RCCP 5 by NSCCL, BSE, and ICCL does not adequately reflect their level of observance of the CPSS-IOSCO recommendation. The recent tests undertaken by the CCPs to ascertain the adequacy

of the liquid funds available with the CCPs have highlighted that the amount assured by the credit lines and the cash margins are sufficient to ensure timely settlement. Further, irrevocable credit lines with the major clearing banks of the CCPs (BSE and NSCCL) have been established with the objective to manage liquidity risk. With regard to the observation of FSAP team on revocability of credit lines established by CCPs, it may be noted that BSE and NSCCL have informed that their credit lines are irrevocable in nature and the same was informed to the FSAP team *vide* our earlier comments on the report.

Further, the assessment report also suggests strengthening of the stress testing procedures of the CCPs and to improve the liquidity risk management. It may be noted that SEBI has initiated the process to strengthen the stress testing procedures of CCPs.

- SEBI has also suggested upgrading the rating attributed to observance of RCCP 6 by NSCCL, BSE, and ICCL for the following reasons:

The bylaws of NSCCL and BSE provide details on situations when a member may be declared as a defaulter, utilization of funds including margins and the settlement guarantee fund in the event of default, etc.²⁸

- CCPs have further detailed the above guidelines through rules, regulations, and circulars.
- It is observed that the aforementioned suggestion to upgrade the rating has not been considered.

188. In addition to the above, SEBI has recently constituted a committee to review the extant risk management framework in the cash market segment and derivatives segment. The concerns, suggestions, and recommendations of the FSAP team with regard to the risk management framework will be forwarded to the committee for their inputs. The committee is expected to *inter alia* review the guidelines on risk management, settlement guarantee fund, segregation of client assets, exposure of CCPs to the few large clearing banks, etc.

²⁸ Chapters XI and XII of the NSCCL Bylaws may be referred at <http://www.nseindia.com/content/press/NSCCLCMbyelaws.pdf>.