Usha Thorat: Indian perspective on banking regulation

Address by Mrs Usha Thorat, Deputy Governor of the Reserve Bank of India, at the International Conference on "Financial Sector Regulation and Reforms in Asian Emerging Markets", jointly organised by the Asian Development Bank Institute, Cornell University and the UK Foreign Services Office, Mumbai, 8 February 2010.

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1. I am delighted to participate in this Conference on "Financial Sector Regulation and Reform in Asian Emerging Markets" jointly organised by the Asian Development Bank Institute, the International Center for Financial Regulation, the UK Foreign and Commonwealth Office and the Brookings Institution. In the session that just concluded, we heard about financial sector developments in emerging markets. In this session, I will like to present the Indian perspective on banking regulation.

2. I have structured my presentation in four parts. To start with, I would like to quickly recapitulate the key factors that contributed to the current global financial crisis and follow it with a brief account of the international regulatory response. Thereafter, I will take up the Indian banking and regulatory scenario – both pre- and post-crisis, including the recent regulatory initiatives. Finally, I hope to place before you the emerging challenges in banking regulation as India aspires for higher growth.

3. The current financial crisis has led to the worst global economic downturn in over 60 years. Though the epicentre of the crisis lay in the sub-prime mortgage market in the US, it was transmitted rapidly throughout the globe, destabilizing financial markets and banking systems. The crisis eventually impacted the broader macro-economy, affecting economic growth and employment throughout the world. The magnitude of this crisis has clearly signaled the need for major overhaul of the global financial regulatory architecture. The G-20 leaders have mandated the international regulatory agencies and standard-setters, including Basel Committee on Banking Supervision (BCBS), Financial Stability Board (FSB) and International Accounting Standards Board (IASB) to take active part in this process. Responding to the unfolding situation, international regulatory agencies are working on strengthening the resilience of financial system, especially on bridging the gaps in the regulatory framework revealed by the current crisis.

Key factors in global financial crisis

4. The genesis of the recent global financial crisis can be traced back to an extended period of global imbalances, easy monetary policy, low real interest rates and under-pricing of risk as liquidity chased yields. It was also the period of low inflation and robust growth – an almost "nirvana" like situation. This benign environment prompted investors to extend their search for yield further down the credit quality curve, reflecting overly optimistic assessments and lack of due diligence in assessing credit risk. Partly in response to this demand, the financial system developed new structures and created new instruments, with embedded leverage, that seemed to offer higher risk-adjusted yields, but were in fact more risky than they appeared to be. In this setting, more-than-warranted faith began to be placed on market discipline reflecting the prevailing optimism with increasing reliance on the assessments of credit rating agencies. The financial sector compensation system based on short-term profits facilitated reinforcing the momentum for risk taking. A constellation of regulatory practices, accounting rules and incentives magnified the credit boom ahead of the crisis. The same factors accelerated the downturn in markets and intensified the crisis. Macroeconomic stability and financial stability were generally treated as separate and unrelated constructs with the former focusing on preserving low and stable inflation, while the latter dealing with

the firm-level supervision of the formal banking sector. In this process, not only was the growing shadow financial sector ignored, but also the factors such as the interconnectedness within the complex financial system, the systemic risk arising out of too-big-to-fail entities and system-wide liquidity needs.

Blueprint for regulatory reforms – international agenda

5. The broad contours of the international initiatives on regulatory reforms envisage strengthening the quality of capital and risk coverage, introducing minimum liquidity standards and leverage ratio, countercyclical measures in the form of capital buffers and forward looking provisioning, developing a framework for systemically important entities including cross-border resolution arrangements, extending the regulatory perimeter to unregulated pools of money, de-risking the OTC derivatives trading through central counterparties and new framework for regulating employee compensation within the financial sector. The impact assessment of the new proposals made by the BCBS will be completed this year and a consensus on fully calibrated measures is expected to be evolved by the end of the year.

The Indian scenario

6. India's financial system, like most emerging market economies, was not seriously affected by the financial turmoil in the developed economies mainly because of the relatively lower integration of the domestic financial sector with the global financial system and limited exposure of overseas branches of the Indian banks to the synthetic and complex structured products. The adverse effects on the economy were mainly due to sudden reversal of capital flows, tightening of credit availability from the overseas and domestic markets impacting respectively the domestic forex market and liquidity conditions. This resulted in increased pressure on banks to provide credit at a time when their financial resources were already quite strained pursuant to the rapid credit expansion in the previous three years. In the circumstances, the thrust of the various policy initiatives by the Reserve Bank has been on providing ample rupee liquidity, ensuring comfortable dollar liquidity and maintaining a market environment conducive for the continued flow of credit to productive sectors.

7. What saved the day for the Indian financial system was our policy approach of gradual and calibrated integration of the domestic financial system with overseas markets, especially the debt markets – through capital controls – as also well-modulated regulatory policies to contain bank exposure to sensitive sectors, which are more prone to asset bubbles, such as real estate and capital markets. Further, ensuring that banks maintained adequate capital and liquidity while containing undue volatility in the forex and debt markets helped in preserving financial stability, while promoting growth. In understanding the Indian perspective on banking regulation, it would be useful to look at the regulatory framework prior to the crisis and the measures initiated to strengthen it in the wake of the crisis.

Regulatory framework – prior to the crisis

8. In devising the regulatory framework for banks, RBI has always kept in focus the financial stability objective. A number of counter-cyclical regulatory measures that are now attracting attention world-wide, were already in place in India even before the onset of the crisis

Capital requirements

9. The minimum capital adequacy ratio (CRAR) for banks in India at nine per cent is higher than the Basel norm of eight per cent. Banks are also required to ensure minimum

Tier I capital ratio of six per cent from April 1, 2010. The current average CRAR for the scheduled commercial banks is over 13 per cent while Tier I ratio is about nine per cent. Importantly, Tier I capital does not include items such as intangible assets and deferred tax assets that are now sought to be deducted internationally.

Liquidity buffers

10. Indian banks have a significant holding of liquid assets as they are required to maintain cash reserve ratio – CRR, currently 5.75 per cent – and statutory liquidity ratio – SLR, currently 25 per cent – both, as a proportion to their "net" liabilities. Central bank liquidity support for managing day-to-day liquidity needs of the banks is available only against SLR securities held over and above the statutory minimum of 25 per cent. Thus, the excess SLR maintained is always available as a source of liquidity buffer. Besides, the Reserve Bank can also lower the SLR requirement in a distress scenario, to make liquidity available to the banks against their resulting excess SLR. Measures are also in place to mitigate liquidity risks at the very short end, at the systemic level by limiting inter-connectedness, especially in the uncollateralised money market, and at the institutional level. More than a decade ago the RBI had issued asset-liability management (ALM) guidelines to banks, covering liquidity risk measurement, reporting framework and prudential limits. Banks are required to monitor their cumulative mismatches across all time buckets and establish internal prudential limits with the approval of the Board. The ALM guidelines were updated in Oct 2007, *inter alia*, making the liquidity risk management more granular.

Management of concentration risk

11. Recognising that risk concentrations could be a very important cause for problems in banks, RBI advised banks in India way back in 1989 to fix internal, Board-approved limits on their exposures to specific industries or sectors and also prescribed prudential regulatory limits on banks' exposure to single and group borrowers.

12. There are prudential limits on single and group borrower exposures as per which banks are allowed as on date, to lend up to 15 per cent of capital funds to a single borrower and up to 40 per cent of capital funds to a borrower group. This can be increased by an additional 5 per cent and 10 per cent, respectively for lending to infrastructure. In addition, banks have been allowed to consider enhancements in exposures to a borrower (single as well as group), in exceptional circumstances, up to a further 5 per cent of capital funds, with the approval of their Boards. In 2003, prudential limits on single and group borrower exposures and capital market exposures were extended to the consolidated level also for the entire banking group.

Capital Market Exposure (CME)

13. With a view to insulating banks from exposure to asset-price volatility, prudential norms were prescribed for their exposure to capital market, acquired through both, funded and non-funded facilities. The exposure ceiling was initially set at five per cent of the total outstanding advances of a bank as on 31st March of the previous year. However, with effect from April 2007, the aggregate exposure of a bank to capital markets has been restricted to 40 per cent its net worth. Within this overall ceiling, a bank's direct investment in shares, convertible bonds/debentures, units of equity-oriented mutual funds and all exposures to Venture Capital Funds should not exceed 20 per cent of its net worth. Similarly, the aggregate exposure of a consolidated bank to capital market and its direct investment in capital markets have been capped at 40 per cent and 20 per cent of the consolidated net worth respectively.

Real estate exposure

14. Banks are expected to monitor their exposure to commercial real estate (which has been defined in detail) so as to limit the risk of any downturn in this sector. Although no regulatory limit is specified in this regard, RBI keeps a close watch on each bank's exposure to the CRE sector through off-site surveillance and initiates corrective actions as necessary.

Investment portfolio

15. In the year 2000, the RBI conducted a stress test of the banks' investment portfolio in an increasing interest rate scenario, when the general trend then was of decreasing interest rates. At that time, banks in India were maintaining a surrogate capital charge for market risk, which was at a variance from the Basel norms. On the basis of the findings, in order to equip the banking system to be better positioned to meet the adverse impact of interest rate risk, banks were advised in January 2002 to build up an Investment Fluctuation Reserve (IFR) within a period of five years. The prudential target for the IFR was five per cent of their investments in "Held for Trading" (HFT) and "Available for Sale" (AFS) categories. Banks were encouraged to build up a higher percentage of IFR up to 10 per cent of their AFS and HFT investments. This counter-cyclical prudential requirement enabled banks to absorb some of the adverse impact when interest rates began moving in the opposite direction in late 2004. In stages, IFR was gradually phased out by October 2005 with the outstanding holdings therein being treated as Tier 1 capital. Banks have been maintaining capital charge for market risk as envisaged under the Basel norms since end-March 2006.

16. With the change in the direction of the movement of interest rates in 2004, the cap on the "Held to Maturity" (HTM) category (at 25 per cent of the total investments) was reviewed in light of the statutory prescriptions requiring banks to mandatorily invest up to 25 per cent of their Demand and Time Liabilities (DTL) in eligible government securities. In view of the statutory pre-emption and the long duration of the government securities, banks were permitted to exceed the limit of 25 per cent of total investments under HTM category provided the excess comprised only the SLR securities and the total SLR securities held in the HTM category was not more than 25 per cent of their DTL. One-time shifting of securities to HTM category was allowed at acquisition cost or book value or market value on the date of transfer, whichever was the least, and the depreciation, if any, on such transfer was required to be fully provided for. These changes recognised the dynamic interface of the banks' investment portfolio with the interest rate cycles and were counter-cyclical.

Accounting policies – unrealised gains and gains on securitised deals

17. Recognising the merit of a conservative approach to valuation of investments by banks, the extant prescription requires banks to recognise the losses (depreciation) but ignore the appreciation (gains). Banks are required to mark to market the each scrip in the HFT and AFS categories at prescribed periodicity, following the principle of scrip-wise valuation and category-wise aggregation. Investments in a particular classification (as per the classifications required for balance sheet purposes), may be aggregated for arriving at net depreciation/appreciation of investments under that category. While net depreciation, if any, needs to be provided for, net appreciation, if any, has to be ignored. Also, the net depreciation required to be provided for in any one classification cannot be reduced on account of net appreciation in any other classification. There is thus an in-built cushion in banks' balance sheet in the form of unrealised gains in the value of the financial instruments.

18. The RBI's guidelines on securitisation do not allow upfront booking of profit by the originator in securitisation of standard assets, but stipulate that any profit/premium or loss/discount arising on account of asset sale should be amortised over the life of the securities issued or to be issued by the SPV, and reflected in the Profit & Loss account. This

measure ensured that profit booking was not the prime mover of securitization transactions of banks.

Measure of leverage

19. Absolute and incremental credit aggregates (including credit deposit ratio) are amongst the host of variables, forming an integral part of macro-economic and prudential policy formulation. In the Indian context an incremental credit-deposit ratio of more than 100 per cent, when the system itself has a high overall absolute credit deposit ratio (say beyond 70 per cent) is taken as a sign of overheating. A prudential focus on credit deposit ratio also encourages the banks to raise deposits for funding credit flow and minimizes the use of purchased funds. As the requirement for SLR is to hold unencumbered securities, banks cannot leverage the minimum SLR portfolio to take on more assets. Thus, the focus on credit deposit ratio and the SLR prescription have both served to limit the degree of leverage in the Indian banking system. The level of leverage is also regulated in India for the non-banking financial entities. The Development Financial Institutions (DFIs), which are also regulated by the RBI, are required to comply with a leverage ratio defined in terms of the multiples of their net owned funds. The non-deposit taking systemically important non-banking financial companies, even though they do not accept public deposits, are also subject to a capital adequacy regime. This was done since these companies were found to be raising public funds from banks and capital market to grow their balance sheets.

Investment in non-government securities

20. Prudential management of investment in non-Government securities (non-SLR securities) by the banks has been another area of regulatory focus primarily with a view to enhancing transparency of their investment portfolio. The need for such management was first articulated in the Mid-term Review of Monetary and Credit Policy for the year 2001–02 and detailed guidelines to banks followed in November 2003 to address the risks arising out of investment in non-SLR securities. The prudential measures included confining the short-term (less than one-year) investments of banks, only to CPs and CDs, insistence on credit rating for all such non-SLR investments, limiting the investment in unlisted non-government securities at 10 per cent of the overall non-SLR investment portfolio and comprehensive disclosure requirements.

Securitisation

21. The RBI issued guidelines on securitisation of standard assets in February 2006. These guidelines, as alluded to earlier, prohibit originators from booking profits upfront at the time of securitisation. Two other features relate to maintenance of capital at the required minimum of 9% on any credit enhancements provided, and disallowing the release of credit enhancement during the life of the credit-enhanced transaction. Thus, banks in India did not have incentive to resort to unbridled securitisation as observed in “originate-to-distribute” and “acquire and arbitrage” models of securitisation in many other countries. It is our perception that these guidelines have served the system well and going forward the intention is to further strengthen these by stipulating minimum lock-in period of one year for originators and a minimum retention of 10 per cent of the pool of assets being securitised.

Derivatives

22. In December 2002, the banks’ exposure to derivatives was brought under the capital adequacy regime by prescribing credit conversion factors linked to the maturities of interest rate contracts and exchange rate contracts. Accordingly, since April 1, 2003 banks were advised to adopt, either original exposure method based on original maturity or current exposure method based on residual maturity, consistently for all derivative products, in

determining individual/group borrower exposure. After the banks gained sufficient expertise in the area, the option of original exposure method was withdrawn and since August 2008 banks are required to compute their credit exposures, arising from the interest rate and foreign exchange derivative transactions using the current exposure method. The conversion factors were increased and ***doubled*** for certain residual maturities with a view to improve the capital cushion available for such derivative products.

23. The amendments to Reserve Bank of India Act, 1934 in 2006 conferred on the RBI explicit powers to regulate the derivative products which have the exchange rate, interest rate or credit rating as the underlying. Comprehensive guidelines on derivatives were issued in April 2007. The guidelines, intended to safeguard the interests of the system as well as the players in the market, lay down eligibility criteria, broad principles for undertaking derivative transactions, permissible derivative instruments, risk management and corporate governance aspects as also aspects relating to both suitability and appropriateness of a derivative product for a client.

Collateralised money market

24. A number of structural measures were initiated by the RBI to restrict non-collateralised borrowing and lending in the money markets. In 2002, limits were placed on call money borrowing and lending. Simultaneously, measures were taken to develop the market repos and the Collateralised Borrowing and Lending Obligations (CBLO) markets with the Clearing Corporation of India Ltd acting as a central counter party. By August 2005, the non-bank players were phased out of the uncollateralised call money markets, which is now a pure inter-bank market. The share of the (collateralized) market repo and CBLO segments in the total money market is significant at nearly 90% in recent months.

Limit on inter-bank exposures

25. Recognising the possible impact of excessive interconnectedness within the banking system, in March 2007, RBI limited a bank's inter-bank liabilities (IBL) to twice its net worth. A higher IBL limit up to 300 per cent of the net worth was allowed for banks whose CRAR was at least 25 per cent more than the minimum CRAR (nine per cent) i.e., 11.25 per cent.

Corporate governance

26. Reckoning the importance of having diversified ownership of banks to ensure that there is no dominance by any shareholder or group of shareholders, directly or indirectly, as also to ensure that significant owners of banks are "fit and proper", RBI issued comprehensive guidelines of ownership and governance in 2003 as also "fit and proper" requirements for directors. Under the extant guidelines, any transfer of a bank's shares amounting to five per cent or more of its total paid up equity capital is required to be approved by RBI before the bank can register the transfer. For holdings beyond 10 per cent prior approval is required. Large industrial houses cannot have ownership of a bank beyond 10 per cent.

27. The RBI has taken various steps to improve corporate governance standards in banks. The private sector banks are required to set up Nomination Committees to oversee "fit and proper" status of board of directors through appropriate due diligence and obtain periodical deed of covenants from the directors. To facilitate induction of fresh minds and ideas, an upper age limit has been prescribed for non-executive directors in private sector banks. Further, the post of the Chairman and Managing Director in private sector banks has been split into a part time Chairman, who would provide strategic vision for the banks and a Managing Director, who, as the Chief Executive, would be responsible for the day-to-day management of the bank.

Compensation of CEOs

28. The Reserve Bank has been mandated by statute to regulate executive compensation in private sector banks. It is the statutory responsibility of RBI to ensure that the remunerations of bank CEOs and whole time directors are not excessive. In terms of Section 35 B of the Banking Regulation Act, 1949, the banks in the private sector and foreign banks in India are required to obtain the approval of the Reserve Bank for remuneration payable to their CEOs while the remuneration of public sector bank CEOs is fixed by the Government of India.

29. The RBI ensures that executive compensation, whether it is in the form of cash or stock, is appropriate, taking into account the financial position of the concerned bank and also the industry practice. The RBI has instructed the boards of the private sector banks to fix remuneration package of CEOs at a reasonable level in light of industry practice in India. Further, the annual bonuses of CEOs of private sector banks are capped at a certain percentage of their base salary. The Remuneration Committees of banks, consisting of independent directors, are made responsible for implementation of compensation structure in banks.

Restrictions on external debt intermediation by banks and FIs

30. As a measure of capital account management, banking system's access to overseas markets has been regulated. Some liberalisation was allowed in 2004, when banks in India were permitted to raise overseas funds not exceeding 25 per cent of their unimpaired Tier I capital or equivalent of USD 10 million, whichever was higher. With a view to providing greater flexibility to Authorised Dealer Category – I banks in seeking access to overseas funds, this facility was further liberalised in October 2008 and the aforesaid limit was raised to 50 per cent of their unimpaired Tier I capital. Apart from this window, banks in India also have access to global financial markets to raise regulatory capital instruments, including capital funds raised/augmented by the issue of innovative perpetual debt instruments and debt capital instruments in foreign currency and any other overseas borrowings with the specific approval of the Reserve Bank. Similarly, there are restrictions on the borrowing abroad by financial institutions. These measures have ensured that overseas lenders take risk on companies directly and do not leverage on the comfort of intermediation by a bank or a financial intermediary.

Market infrastructure

31. An institutional mechanism initiated by RBI for minimising settlement risk was the setting up the Clearing Corporation of India Ltd (CCIL) in 2001 as a central counter party. It provides an institutional structure for the clearing and settlement of transactions undertaken in Government securities, money market instruments and foreign exchange products. In October 2007, CCIL has become a member of the *CCP 12*, an international organisation of the central counterparty clearing organisations. Apart from this, there are also systems in place for reporting trades in corporate bonds for ensuring greater transparency.

Supervision of financial conglomerates

32. In order to address the limitations of the segmental approach to supervision of bigger financial groups, the Reserve Bank of India, in consultation with the Securities and Exchange Board of India (SEBI) and Insurance Regulatory and Development Authority (IRDA), put in place in June 2004 a special monitoring framework for Financial Conglomerates (FCs). Under the framework, certain key/critical information/data are being collected from identified FCs by their respective principal regulators. The data/information, among others, relate to intra-group transactions and exposures of the identified groups. The review of the intra-group transactions is conducted with a view to track build-up of large

exposures to entities within the Group, to ensure that the transactions are conducted in an arm's-length relationship, to identify cases of migration/ transfer of "losses" and detect situations of regulatory/supervisory arbitrage. The build-up of exposures of the Group on a collective basis to outside counterparties and to various financial market segments (equity, debt, money market, derivatives market etc.) are also assessed in course of the analysis of data. The monitoring mechanism, thus, seeks to capture the "contagion risk" within the group as also its cumulative exposure to specific outside entities, sectors and market segments, from the point of view of various concentration risks facing the Group.

Regulation of NBFCs

33. The systemic significance of non-banking financial institutions and hence, the need for their regulation, which is now engaging the attention of policy makers globally, had been recognised by India more than a decade ago when in the RBI Act was amended to bring the non-banking financial institutions within the regulatory domain of the Reserve Bank.

34. The initial policy stance was focused on the objective of depositor protection and all regulations were formulated to address this objective. Accordingly, Non-deposit taking NBFCs (NBFCs-ND) were subject to minimal regulation. However, recognising the systemic significance of certain entities, RBI classified, in December 2006, non-deposit taking NBFCs having asset size of Rs 100 crore and more as systemically important. To strengthen the capital base of such companies and reduce the possibility of excessive leverage, capital adequacy requirements were introduced besides the credit concentration norms. A capital adequacy ratio of 10 per cent, which is higher than that for banks, was prescribed for NBFCs-ND-SI with effect from April 01, 2007.

35. Apart from capital adequacy norms, single and group credit/investment concentration norms were also introduced with effect from April 01, 2007 for NBFCs-ND-SI in as much as they could not lend to or invest in shares of any single entity exceeding 15 per cent of their owned fund; and to any single group of borrowers exceeding 25 per cent of their owned fund; or lend and invest (loans/investments taken together) more than 25 per cent of owned fund to a single party; and 40 per cent of owned fund to a single group of parties.

Countercyclical prudential measures

36. From 2004 through 2007, in conjunction with monetary policy, the RBI used pre-emptive countercyclical provisioning and differential risk weights to contain excessive credit growth to sectors that showed signs of risk building up. These include sectors where asset prices were increasing rapidly (such as real estate and capital markets) and retail or personal loan sectors where underwriting standards, were perceived to have been diluted during the phase of very high credit growth. For instance, in 2004, a higher risk weight of 125 per cent (earlier 100 per cent) was prescribed for consumer credit, including personal loans and credit cards receivables. Similarly, in July 2005, the continued rapid expansion in credit to the capital market and commercial real estate sector prompted the Reserve Bank to increase the risk weights on banks' exposure to these sectors to 125 per cent. About a year later in May 2006, the risk weight on commercial real estate exposure was further increased from 125 per cent to 150 per cent. In January 2007, the risk weight for bank's exposure to NBFC-ND-SI was increased from 100 per cent to 125 per cent. The higher risk weight applicable to these sectors were found to be an effective tool for moderating credit growth, besides serving the prudential purpose. Anticipating the deterioration in credit quality that is expected in the context of high credit growth, the general provisioning requirement on standard advances in certain sensitive sectors, *viz.,* capital market exposure, residential housing loans beyond Rs.20 lakh, commercial real estate loans and loans/advances to NBFCs-NDSI was raised from 0.4 per cent to one per cent in May 2006, and subsequently to two per cent in January 2007.

37. These prescriptions were reviewed in the context of the global financial crisis in November 2008. The risk weights to the sensitive sectors were restored to 100 per cent from the higher levels. The provisioning requirements for all types of standard assets was reduced to a uniform level of 0.40 per cent except in the case of direct advances to agricultural and SME sectors, which continued to attract a provisioning of 0.25 per cent, as hitherto. As the economy stabilised, it was found that credit to CRE again started showing signs of rapid growth while there was evidence of lack of demand in the sector; the provisioning requirement for CRE was increased to one per cent in October 2009 to deal with the likely rise in NPAs. Thus, RBI deviated from the Greenspan Orthodoxy, and used prudential measures to safeguard the banking system from any fallout of asset price bubbles and busts.

Development of institutional framework for ensuring financial stability

38. Apart from being the banking regulator, the RBI has responsibility for regulating non-banking financial companies – both deposit taking and non-deposit taking. In addition it regulates the forex, money and government bond markets. It can also impose or remove capital controls under the Foreign Exchange Management Act. Further, the RBI is the regulatory authority for the payments and settlements system under the relevant Act passed in 2007. These powers have made it possible for the RBI to be a key systemic regulator for ensuring financial stability. The institutional framework developed to achieve this objective included the Board for Financial Supervision (BFS), which was established in 1994 as a committee of the Central Board of Directors of the Reserve Bank of India for oversight of the supervision function covering commercial banks, non-banking financial companies, specialised financial institutions, urban cooperative bank and primary dealers. As part of the process of ensuring a coordinated approach to regulation, a High Level Co-ordination Committee on Financial and Capital Markets (HLCCFCM) was constituted in 1999 with the Governor, RBI as Chairman, and the heads of the securities market and insurance regulators, and the Secretary in the Finance Ministry as members. A Board for Regulation and Supervision of Payment and Settlement Systems (BPSS), was constituted in March 2005, also as a Committee of the Central Board of the Reserve Bank, and has been entrusted with the responsibility for the smooth development and functioning of the payment and settlement systems in India.

Regulatory response – post crisis

39. The RBI responded to the crisis by providing ample rupee liquidity and comfortable forex liquidity to ensure that credit and financial markets functioned normally. It also gave regulatory guidance for restructuring of viable loan accounts for ensuring continued flow of credit to productive sectors of the economy with a view to arresting growth deceleration.

Liquidity measures

40. Policy interest rates were reduced aggressively and rapidly, the quantum of bank reserves kept with the central bank was reduced significantly. Refinance facilities for specific sectors like SME/housing and exports were provided or increased. Measures aimed at managing forex liquidity included an upward adjustment of the interest rate ceiling on the foreign currency deposits by non-resident Indians, relaxing the external commercial borrowings (ECB) regime for corporates, and allowing non-banking financial companies and housing finance companies access to foreign borrowing, as also rupee-dollar swap facility for Indian banks' overseas branches. An exclusive refinance window as also a special purpose vehicle for supporting non-banking financial companies was introduced. Specific refinance was provided for export housing and SME sectors through EXIM Bank, National Housing Bank and Small Industries Bank of India.

Counter cyclical measures

41. In November 2008, as a countercyclical measure, the additional risk weights and provisions were withdrawn and restored to previous levels. The prudential regulations for restructured accounts were modified, and banks were allowed to treat the restructured accounts as "standard" asset subject to certain safeguards such as meeting the conditions of viability, adequate provisioning and full disclosure. This was a one-time measure in the context of the need to preserve the economic and productive value of assets which were otherwise viable. The modified regulations were in operation for applications for re-structuring received up to March 31, 2009 and restructured packages implemented within 120 days of receipt of application or by June 30, 2009, whichever was earlier.

CRAR hike for NBFCs deferred

42. In the case of NBFCs, having regard to their need to raise capital, they were allowed to issue perpetual debt instruments qualifying for regulatory capital. They were also allowed further time of one more year to comply with the increased Capital to Risk-Weighted Asset Ratio (CRAR) stipulation of 15 per cent as against the existing requirement of 12 per cent.

Provisioning coverage ratio

43. Recognising the impact that restructuring and slower growth could have on the credit quality of banks and taking into account the need to build up provisions when banks' earnings are good, banks were advised in December 2009 that their total provision coverage ratio, including floating provisions, should not be below 70 per cent by September 2010.

Strengthening of securitisation guidelines

44. To ensure that the originators do not compromise on due diligence of assets generated for the purpose of securitisation, it has been recently decided to stipulate a minimum lock-in period of one year for bank loans before these are securitised. It has also been proposed to lay down minimum retention criteria for the originators at 10 per cent of the pool of assets being securitised as another measure to achieve the same objective.

Addressing regulatory gaps: NCDs and private pools of capital

45. An area of regulatory gap identified was issuance of Non Convertible Debentures (NCDs) of maturity of less than one year. While banks were not permitted to invest in such instruments, the mutual funds could do so and in the context of large flow of funds from banks to mutual funds, there were concerns that reliance of corporates on NCDs of less than one year maturity had increased, but it did not come under the regulatory purview of either by the SEBI or the Govt. of India. HLCCFM had taken the view that these instruments need to be regulated as money market instruments by the Reserve Bank. Draft guidelines formulated by an Internal Working Group, formed for the purpose, have been placed on the RBI website for comments.

46. Of late, banks in India have shown increasing interest in sponsoring and managing private pools of capital like venture capital funds and infrastructure funds. With a view to strengthening the regulatory framework in this regard, it was felt necessary to put in place an appropriate prudential framework for regulating banks' off-balance sheet activities. Accordingly, a draft discussion paper has been put out by Reserve Bank for soliciting comments.

Strengthening of disclosure norms for NBFCs

47. The disclosure norms in respect of NBFCs-ND-SI were also reviewed and Systemically Important NBFCs-ND were advised to make additional disclosures in their

Balance Sheet from the year ending March 31, 2009 relating to Capital to Risk Assets Ratio (CRAR), exposure to real estate sector, both direct and indirect, and maturity pattern of assets and liabilities.

Repos in corporate bonds

48. In order to help develop the corporate bond market and after putting in place a robust system to ensure settlement of trades in corporate bonds on a DvP 1 basis (on a trade-by-trade basis) and Straight-Through-Processing (STP), the Reserve Bank of India has formulated, in consultation with the market participants, draft guidelines on repo transactions in corporate debt securities.

Currency and interest rate futures

49. An internal Working Group was set up by the Reserve Bank to study the international experience and suggest a suitable framework to operationalise the proposal to introduce exchange-traded currency futures in India. The Group recommended allowing banks to become direct trading-cum-clearing members of the currency futures exchanges subject to prudential criteria such as minimum net worth, CRAR, profitability, etc. Accepting these recommendations and in order to enable the market participants to manage their currency risk better, currency futures have been introduced in August 2008. Initially, only US dollar-Indian rupee contracts were allowed. As part of developing the market for currency futures further, currency futures contracts in currency pairs of Euro-INR, Japanese Yen-INR and Pound Sterling-INR, have also been introduced in January 2010.

50. In order to enable management of interest rate risk better, interest rate futures have been introduced in August 2009. The standardised Interest rate futures contracts are on 10-year notional coupon-bearing Government of India security with a notional coupon of seven per cent per annum with semi-annual compounding.

Single name credit default swaps

51. As part of the gradual process of financial sector liberalisation in India, it is considered appropriate to introduce credit derivatives in a calibrated manner. In 2007, the Reserve Bank had issued draft guidelines for introduction of credit default swaps (CDS) in India. However, the issuance of final guidelines was kept in abeyance keeping in view the role of credit derivatives in the recent financial crisis. It was essential that we proceed with caution reflecting the lessons from the financial crisis in this regard. In order to align with the international work already conducted/ underway in the area of credit derivatives, and keeping in view the specifics of the Indian markets, it is proposed: to introduce plain vanilla OTC single-name CDS for corporate bonds for resident entities subject to appropriate safeguards. A working Group has been constituted for the purpose.

Setting up of Financial Stability Unit

52. Financial stability has come to occupy centre-stage of policy concerns. As has been done in many jurisdictions, an exclusive Financial Stability Unit (FSU) was set up within the Reserve Bank. The mandate of the Unit, *inter alia*, includes conducting macro-prudential surveillance and stress tests.

53. Thus it is obvious that the global events have not stalled the reform agenda: rather, a number of measures have been taken for development of the financial markets drawing upon the lessons learnt from the crisis.

Commencement of calibrated exit

54. As the growth momentum gathers pace, RBI is conscious of the growing need for a calibrated exit from the accommodative monetary policy stance, put in place as part of the strategy to manage the impact of the crisis. However, the policy dilemma facing India is qualitatively different from that faced by the advanced economies. The pace of recovery of the Indian economy is widely expected to be faster than the developed nations. Further, unlike developed nations, India is confronted with a situation of high inflation, which currently appears to be more supply driven in contrast to economies which are demand starved. As part of this evolving strategy, the reserve requirements were hiked in January 2010, (SLR by 100 bps and CRR by 75 bps), unconventional facilities for providing liquidity – refinance and special term repo – for scheduled commercial banks rolled back and access to short-term foreign currency borrowing by NBFCs and housing finance companies (HFCs) withdrawn.

Emerging challenges/issues that need focused attention

55. An important challenge that confronts us as we go forward is how to balance the needs of growth with financial stability. The overarching objective of RBI has been to ensure adequate flow of credit to the productive sectors of the economy, while endeavouring to preserve price and financial stability. The critical challenge in this context is whether the emerging regulatory responses internationally will constrain growth in India.

Leverage ratio

56. As a leverage ratio does not require any complex modelling assumptions and calibration procedures, having it in addition to risk-weighted capital requirements is conceptually advantageous. However, India being primarily a bank-dominated financial system, with banks providing working capital as well as long-term finance, the impact of introduction of leverage ratio on growth may have to be looked into. Also various off balance sheet transactions such as letters of credit and guarantees are very important for supporting the real sector but would likely have 100 per cent credit equivalence for calculation of the proposed leverage ratio. The SLR in India is a statutory requirement for banks and including the SLR securities in computing the leverage ratio is an issue that is engaging our attention, especially as these securities can not be used for borrowing.

Capital buffers: size

57. In the context of building capital buffers for mitigating pro-cyclicality, the use of credit aggregates for assessing banking sector conditions for determining buffers may have different implications for India, as contrasted with those for advanced economies. Growth in bank credit in India could be due to factors such as financial deepening from a relatively lower base, structural shifts in supply elasticities, rising efficiency of credit markets and perhaps policy initiatives to improve flow of credit to sectors like the agriculture and small enterprises apart from the credit demand arising out of higher growth in GDP itself.

Asset liability management

58. India has a bank-dominated financial system and the Indian economy, being supply-constrained, needs financial resources of long-term nature. Given this, the increased funding of growth and development by banks, whose liabilities are typically short-term, would lead to asset liability mismatch, and there is a need for products for managing liquidity and interest rate risk arising out such mismatches.

Know Your Customer (KYC) guidelines

59. KYC guidelines/norms are very relevant in the context of money laundering and suspicious activities. However, the rigour of their application to low-value low-risk customers may need to be suitably modified to facilitate access to the formal financial system for such customers.

Credit information

60. Achieving financial inclusion in India is one of the policy objectives of the Reserve Bank. In this context, availability of credit information could facilitate flow of credit to credit-worthy borrowers. While a few credit information companies are in the process of setting up business in India, there is a need for up scaling availability of credit information.

Credit rating

61. There is an urgent need to ensure robustness and reliability of credit ratings assigned by the rating agencies. The Reserve Bank has recently completed a detailed process of review of the accredited CRAs for their continued accreditation under Basel II. We are also liaising with Securities Exchange Board of India (SEBI) with regard to CRAs' adherence to the IOSCO Code of Conduct Fundamentals. The issue of strengthening the regulation of CRAs is under the consideration of the HLCCFM and the report since submitted to the HLCCFM has been placed in the public domain.

Risk management capabilities: HR and IT issues

62. In the years ahead, banks would need to upgrade their infrastructure, including human resources, to face the growing complexity of risk management. Apart from traditional risks such as credit risk, market risk and operational risk, new genre of risks including reputation risk, liquidity risk, counterparty credit risk, and model risk have emerged on the horizon, management of which obviously requires skills of a higher order. These issues are engaging the attention of the stakeholders of the Indian banking industry.

Implementation of Basel II – advanced approaches

63. We have announced a timetable for the gradual and calibrated adoption of advanced approaches of the Basel II Accord by the banks in India. The challenges for us include the absence of long-enough history of economic/business cycles. Also, using past data may not be appropriate in cases where the sector has undergone structural transformation. Another issue with regard to adoption of the advanced approaches is the possibility that the risk weights assigned to employment-intensive retail and SME sectors may increase in certain circumstances, which may hamper the credit flow to these sectors or make it costlier. We may need to develop appropriate risk mitigants for the borrowers of these sectors on the basis of which lower risk weights could be assigned in order to ensure continued flow of credit to them.

Infrastructure funding

64. It has been estimated that the infrastructure lending requirements during the 11th Five year plan period (2007–08 to 2011–12) would be approximately Rs. 20 lakh crore (USD 450 billion). Even though banks' lending to infrastructure has been steadily showing an increasing trend over the years and amounted to 9.73 per cent of bank credit as at end March 2009, there is an ever increasing demand on banks to finance infrastructure.

65. While measures like take-out financing arrangement with IIFCL/other financial institutions, issue of long-term bonds by banks to the extent of their exposure to the

infrastructure sector and certain relaxations in single/group borrower limits for infrastructure financing are already in place, banks face difficulty in meeting the increasing demand for infrastructure finance. Activating the corporate bond market, tapping long-term savings such as insurance and pension funds could potentially open up an alternative source of funds for infrastructure financing. There is also a need to look for credit mitigants to facilitate enhanced bank finance for infrastructure.

Micro and Small Enterprise (MSE) funding

66. From the banker's point of view, the critical factors affecting credit delivery to the MSEs are low equity base, absence of marketing tie up, diversion of funds, poor management and book keeping, higher NPAs, mounting of receivables due to delay in payment of bills especially during downturn. Effective involvement of banks in MSE funding warrants addressing issues associated with credit information and credit guarantee. Further, banks need portfolio approach to risk management. Innovative, decentralised and customised credit delivery mechanisms would need to be thought of, leveraging on technology for better risk management while reducing transaction costs.

Financial inclusion

67. In response to the recent crisis, financial sector regulation is being strengthened across the jurisdictions, India being no exception. Higher capital and liquidity requirements are being considered which could potentially increase the cost of banking business, which could ultimately be reflected in higher lending costs. As these measures may have adverse implications for financial inclusion, policy makers may need to look to tweaking regulations to facilitate financial inclusion.

68. Further, up-scaling financial inclusion entails bringing informationally opaque borrowers into the fold of mainstream banking. We have introduced the branchless banking or agency model through business correspondents to take banking to the unbanked and under-banked areas. This model, *inter alia*, involves reputational risks and agency risks. Hence, there is a need to adopt innovative risk management approaches using IT, including a portfolio approach to retail credit risk management.

69. Unique Identification Authority of India (UIDAI), an initiative by the Government of India, is in the process of issuing unique identity (UID) numbers to Indian residents. Use of UID could go a long way in bringing the financially excluded under the fold of mainstream banking as it would assist KYC, credit information and credit profiling.

Concluding observations

70. Financial sector regulation in India, as it evolved over the years, has focused on prudential regulation for individual institutions while simultaneously putting in place measures to deal with systemic risk, arbitrage and capital account management. When credit to certain risk-prone sectors was found to be growing at a very high rate, countercyclical measures through additional capital and standard assets provisioning were introduced. Going forward, the challenge for us is to calibrate financial sector development to meet the needs of a rapidly growing and globalising economy while adhering to the best practices in micro- and macro-prudential regulation for ensuring financial stability.

Thank you.