K C Chakrabarty: Post-crisis – the New Normal

Keynote address by Dr K C Chakrabarty, Deputy Governor of the Reserve Bank of India, at the Reserve Bank of India-Bank of France Seminar, Paris, 8 November 2011.

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1. The aftermath of the recent global financial crisis bears testimony to the fact that impact of the turmoil is severe and the recovery therefrom is protracted, resulting in significant losses in output and employment for an extended period of time. Even two-years after the recent crisis, there are lingering apprehensions that global economy in general and advanced economies in particular may suffer double-dip recession.

2. There is a perception that advanced countries performed better during the crisis management but fared rather poorly in the post-crisis phase. In other words, developed economies *won the war* in the crisis period, *lost the peace* in the post-crisis period. This evolving post-crisis scenario has been described as *New Normal*.

3. Mr. Mohamad El-Erain, the Chief of *Pacific Investment Management Company* (PIMCO) coined the phase *New Normal* during early 2009 fundamentally to signify a downward shift in potential growth of advanced economies because of the impairment of their financial sectors and capital destruction. The phrase captured the imagination of the world and began to be used in varied contexts to broadly underscore regime shifts and hard transformation, embodying the characteristics of ***D***e-leveraging, ***D***e-globalization and ***R***e-regulation, the so-called DDR dynamics.

4. I would like to focus on the aspect of Re-Regulation.

I. Re-regulation: the New Normal

The banking regulation before the crisis, especially in advanced economies, was basically minimalist in nature; segmented in scope, done in silos displaying undue faith in the market discipline, devoid of any big-picture awareness on the part of the supervisors. The overall framework came to be known as *light-touch regulation* focusing on individual banks and institutions, disregarding the interconnectedness among these entities and the systemic risk such interconnectedness could pose to the financial stability. The potential adverse implications of *fallacy of composition* were completely ignored.

5. In other words, while the build-up of leverage and the under pricing of credit risk were recognized in advance of the turmoil, their impact was under-appreciated. Further, there was no globally coordinated approach to assess the implications of these systemic risks and policy options to address them. There was also insufficient recognition of the interconnectedness of risks within both regulated and unregulated markets. Reflecting these lessons of the crisis, the financial regulatory reforms have been underway spearheaded at the international level by the G20, aiming, *inter alia*, at increasing the resilience of the global financial system. In the process, the international best practice trajectory itself has shifted upwards with the introduction of Basel III and other initiatives. This is what can be called re-regulation, the New Normal.

6. The New Normal broadly embodies two strands: one relating to paradigm shift in institutional arrangement for regulation and another pertaining to regulation itself.

Institutional arrangements

7. There is discernible trend of institutionalization of collegial arrangements involving the central bank, other regulators and the government, with the broader responsibility of identifying threats to financial stability. In the US, the Financial Stability Oversight Council (FSOC) is headed by the Treasury Secretary and comprises the Fed Chairman and the heads of all the regulatory agencies. New supervisory bodies involving council approach have been created in the EU. The European Systemic Risk Board (ESRB) is chaired by the President of the European Central Bank (ECB) and is a part of the European System of Financial Supervision which also comprises the three newly created systemic authorities for banking, insurance and occupational pensions and for securities markets.

8. The UK Financial Services Authority (FSA) has been split in two, as the UK embraces what is called “twin-peaks” model of financial regulation, where separate entities for prudential supervision, and the oversight of consumer protection and market conduct are created. The prudential oversight wing moved inside the Bank of England. Further, an independent Financial Policy Committee at the Bank, chaired by Governor, Bank of England has been set up having the tools and the responsibility to look across the economy at the macro issues that may threaten economic and financial stability and take effective action in response. Of course this new arrangement may come into being only in 2013.

Regulatory initiatives

9. Globally, various initiatives to reform financial sector regulation, the New Normal, have been spearheaded by G-20 with the Financial Stability Board (FSB) assuming the role of the oversight agency. There is greater appreciation for adherence to Basel Core Principles and openness to peer reviews.

10. These initiatives have been well documented and hence it would suffice here to mention that the broad contours of the international initiatives on regulatory reforms envisage strengthening the quality, consistency and transparency of regulatory 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. Further, there will be an overlay of macro-prudential regulation by systemic regulator to review macro prudential risks.

II. Challenges of re-regulation

11. Implementation of the New Normal of re-regulation does pose various challenges. The collective resolve to reform the regulation of financial sector reflecting the spirit of New Normal needs to be maintained as various countries experience varied macro-economic and financial conditions post the Pittsburgh Summit in September 2009. This unity of commitment is becoming hard to come by. Further, harmonised implementation of regulatory policies across jurisdictions to address regulatory arbitrage is rendered difficult when their underlying business cycles lack synchronization.

12. Be that as it may, challenges that EMEs face in implementing the New Normal of re-regulation are entirely different, notwithstanding in-built flexibility for national differences in adoption and implementation by way of a “comply or explain” provision.

Emerging market perspective[1]

13. The New Normal of Re-regulation broadly reflects the lessons of the recent crisis and is therefore basically oriented towards ensuring financial stability in advanced economies. Even so, EMEs have to implement it. However, its implementation does entail various trade-offs, especially for the EMEs.

Capital standards

14. The Basel III standards for increased bank capital and liquidity will provide a strong anchor for enhancing the resilience of each individual institution to adverse shocks. It forces all lenders, particularly the largest to build up buffers of equity, cash and liquid assets to protect themselves against unexpected losses or another market crisis. But, they carry cost which may drive up costs for their customers and make many of banks' business lines unprofitable. Banks and Supervisors need to guard against complacency that capital buffers could be effective without strong governance risk management and internal controls.

15. As the EMEs have higher capital ratios, the balance sheet of the banks expand on the back of growing credit to fund higher growth, and these banks in EMEs may have to mobilize larger capital with cost implications. Higher capital requirements arising out of re-securitisation and complex derivatives may have muted implications for EMEs because of the fact that such exposures are either limited or not permitted. Supervisors need to be vigilant that tighter regulation does not drive risk from the banking system into the shadows and to less transparent and lightly supervised parts of the financial system.

Liquidity standards

16. EMEs have not experienced the levels of liquidity stress that advanced economies had suffered. Therefore, implementing the liquidity standards requires EMEs to develop the capability to collect and collate the relevant data accurately and granularly, with a view to analysing and forecasting the liquidity stress scenarios with reasonable accuracy and consistent with their own situation. They have however the advantage of drawing upon the experience of the developed economies.

Leverage ratio

17. The current proposal under consideration of the Basel Committee on Banking Supervision (BCBS) is to include all on and off balance sheet exposures. Here, an area of concern for EMEs could be the treatment of off-balance sheet (OBS) exposure. Most of the OBS exposures in EMEs have their footprints in the real economy, basically for hedging purposes, as proprietary trading by banks is limited and/or complex financial products are not introduced in these jurisdictions. Further, these contingent liabilities do not generally materialise. On the contrary, in advanced economies, OBS exposures have their footprints predominately in the financial sector, including for speculative purposes. Given this critical differentiation, credit conversion factor (CCF) is crucial. Higher CCFs could have adverse implications for flow of credit to real sector and capital formation in the EMEs.

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[1] Material for this section is broadly drawn from Post-Crisis Reforms to Banking Regulation and Supervision – Think Global, Act Local, the inaugural address by Dr. D. Subbarao, Governor, Reserve Bank of India at the FICCI-IBA Conference on "Global Banking: Paradigm Shift" on September 7, 2010 and Emerging Market Economies Leading Global Growth, Remarks by Dr. Duvvuri Subbarao, Governor, Reserve Bank of India at a panel discussion on "Role of Emerging Economies Going Forward and Key Policy Challenges" at the IMF, Washington DC on October 9, 2010.

Countercyclical capital buffer

18. Another dimension of the regulatory reform is to align regulation to the credit and default cycles. The difficulty for the EMEs is that emerging markets do not have adequate history of cycles and hence lack the nuanced understanding of them. Given this, there are various operational issues regarding various time-varying regulatory approaches under consideration, including how and when to build or draw-down capital buffers and how to formulate expected loss-provisioning.

19. As per the BCBS guidance, credit to GDP ratio is the preferred buffer guide for assessing banking sector conditions for buffers. However, there is a need to draw a distinction: Assessment of credit aggregates may have different implications for EMEs, as contrasted with those for advanced economies. Growth in bank credit in the EME could be due to factors such as financial deepening from a low 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 scale units.

20. The impact of these factors on credit aggregates of the advanced economies is by and large muted. Hence, care and caution needs to be exercised while studying credit aggregates for capital buffers. Other related issues with regard to buffers include the optimal size of the buffers and the methodology for its determination. Too large a buffer, while promoting financial stability, may impound more capital than warranted and hence could have adverse implications for cost and availability of capital for the real sector. If so, what does it mean for better price discovery and improving allocative efficiency, given the fact that high capital gearing is fundamentally against inter mediation?

The New Normal and financial inclusion

21. How does the New Normal of re-regulation impinge on EMEs' efforts at financial inclusion? Does augmenting financial stability through, *inter alia*, addressing systemic risk, extending scope of regulation, mitigating procyclicality and strengthening prudential oversight comprise financial inclusion as the increased stability come at a price of hiking the cost of banking business and thereby taking banking away from the poor?

22. This important perspective should not be lost sight of, particularly in EMEs. In EMEs upscaling financial inclusion endeavor to bring the opportunities of cost effective banking to the underprivileged and low income groups is essential for banks to play a critical role, going forward, as it embodies the potential for augmenting growth prospects in terms of enhancing bank savings and financial deepening.

Comply and explain

23. As enumerated above, *the New Normal* has in-built flexibility for national differences in adoption and implementation by way of a "comply or explain" provision. In the event of deviation from the standards of New Normal, EMEs have an additional challenge of effective and timely communications with the markets to ensure that the deviation is not mistaken for regulatory looseness.

The New Normal – a few thoughts

24. I see The New Normal at a fundamental level, as signifying a need for financial systems and regulators to get back to basics .As I see it, the three intertwining strands of the new Normal across the globe, are Stability, Financial Inclusion and Consumer protection.

25. The New Normal, at a fundamental level would underscore the following aspects: Financial intermediation should stand the test of operational and allocative efficiency, manifest in the form of lower intermediation cost. Scarce financial resources should be allocated among the competing sectors efficiently with least possible cost, promoting productivity. Strengthening and developing financial sector should be subservient to the

needs of the real sector and as such the growth of former has to be in alignment with that of the latter. A financial system where the financial sector drives the real sector and growth in the financial sector outstrips regulatory surveillance capacity and absence of supporting institutions to support financial innovation are warning signals for regulators. Hence, it is imperative to ensure harmonized development of real and financial sectors. There should be greater focus on reaching out to the bottom of the Pyramid, as inclusive growth is a viable business option for banks and leads to growth in GDP. This would also mean improving levels of financial education with a bias towards simple rather than complex products, particularly in the EMEs.

26. The financial crisis has put the unqualified faith in the efficient market hypothesis under question. Financial markets are indeed important, but that should not be construed as financial markets being right all the time. As markets are susceptible to irrational behavior and driven by sentiment and herding, there is need for proactive regulation and constant surveillance of markets.

27. Innovation drives growth. The backlash of the financial crisis should not result in stagnation, or regulatory straitjackets which thwart and stifle innovation. Innovation is necessary for efficient allocation of resources, operational efficiency and delivery of economical, cost effective and consumer products and consequently improved productivity. This does not mean that financial innovation should be unregulated as it has implications for consumer protection and systemic risk.

28. Financial innovation should continue to play a catalytic role in intermediating savings for providing adequate levels of funding to the real sector, thereby supporting economic growth. However, financial intermediation should not acquire dynamics of its own as it can potentially lead to economic rent seeking, rather than delivering valuable customer and economic benefits. Hence, it is essential that optimal balance is maintained between financial innovation and regulation. Collectively, the above four aspects of the New Normal should contribute to the promotion of financial stability, financial inclusion and consumer protection.

III. Indian experience

29. India, like most other emerging market economies, was not seriously affected by the recent financial turmoil in developed economies. Indian banking system, similar to other Asian banks, remained profitable, well-capitalised and prudently regulated. Financial stability in India has been achieved through perseverance of prudential policies which prevent institutions from excessive risk taking, and financial markets from becoming extremely volatile and turbulent.

30. In fact, various measures/proposals underpinning the New Normal of Re-Regulation have already been brought into practice in India even before the crisis. These included restrictions on leverage for banking and non banking institutions, stringent liquidity requirements, counter cyclical prudential measures, not recognising in Tier I capital many items that are now sought to be deducted internationally, recognising profits from sale of securitised assets to SPVs over the life of the securities issued, not reckoning unrealised gains in earnings or in Tier I capital.

31. In the above backdrop, the Indian response in the post-crisis period was primarily guided by the immediate imperative of containing the financial contagion from abroad and carrying forward the process of financial sector reforms in a calibrated manner distilling the lessons from the crisis.

Measures for containing financial contagion

32. The RBI responded to the crisis by providing ample rupee liquidity and comfortable forex liquidity to ensure that credit and financial markets functioned normally. To cushion the

adverse impact of the downturn, various sector-specific counter-cyclical regulatory measures involving risk-weights and provisioning were introduced. 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.

Financial sector reforms

33. The regulatory measures initiated for furthering financial sector reforms introduced in the post-crisis period aimed at institutional and market development and strengthening resilience of the financial system are as follows:

Institutional and market development measures

Securitization market

34. The RBI issued guidelines on securitisation of standard assets in February 2006. These guidelines prohibit originators from booking profits upfront at the time of securitisation. Two other features relate to deduction from capital of any credit enhancements provided in the first of first loss, and disallowing the release of credit enhancement during the life of the credit-enhanced transaction. Further, the revised draft guidelines on securitisation, primarily on minimum holding period and minimum retention requirements, have been issued in September 2011.

Credit Default Swap

35. Drawing from the recommendations of the Internal Group and distilling the lessons of the recent global financial crisis, final guidelines were issued in May 2011 for the introduction of plain vanilla OTC single-name CDS for corporate bonds.

Financial Stability Development Council (FSDC)

36. Financial Stability and Development Council (FSDC) has been constituted with a view to strengthen and institutionalise the mechanism for maintaining financial stability. The Council would monitor macro-prudential supervision of the economy, including the functioning of large financial conglomerates, and address inter-regulatory coordination issues.

Conglomerate structure

37. A Working Group has recommended a roadmap for the introduction of holding company structure in the Indian financial sector together with the required regulatory, supervisory and legislative framework with a view to introducing an alternate organizational structure for the banks and identified financial conglomerates in India.

Measures for strengthening resilience of financial system

Basel II advanced approaches

38. The timetable for the phased adoption of advanced approaches for the computation of regulatory capital under the Basel II framework in India has been put in public domain in July 2009. Enhancements to Basel II guidelines – New Capital Adequacy Framework – were issued in February 2010. These enhancements prescribed increased capital requirements for specific risk and liquidity facility for securitisation exposures. It also intended banks to better identify and appropriately capture risks in their internal assessments of capital adequacy and manage risks and more granular disclosure requirements for credit risk mitigations and securitised exposures.

39. The guidelines on “The Standardised Approach (TSA)” and “Alternative Standardised Approach (ASA)” for operational risk were issued in March 2010. The guidelines on Internal Models Approach (IMA) for VaR-based measurement of exposure to market risk have been issued in April 2010. The guidelines on Advanced Measurement Approach (AMA) for calculating operational risk capital charge for operational risk were issued in April 2011. Draft guidelines for internal rating based (IRB) approach for credit risk were put in public domain on August 11, 2011 for comments.

Provisioning buffer

40. With a view to augmenting provisioning buffer in a counter-cyclical manner when the banks were making good profits, as a macro-prudential measure, a Provisioning Coverage Ratio (PCR) of 70 percent of gross Non Performing Assets with reference the banks’ position as on September 30, 2010 was prescribed in April 2011.

Implementation of Basel III

41. As alluded to earlier, distilling the lessons of the crisis, an international endeavour is underway to reform global financial regulation, of special mention is the guidelines known as Basel III. Some of the Basel III guidelines relating to capital and liquidity have already been issued. The Reserve Bank would adhere to internationally agreed phase-in period (beginning January 1, 2013) for implementation of the Basel III framework.

Supervisory issues

42. The crisis has underpinned the need for more intense and effective supervision particularly relating to systemically important financial institutions (SIFIs). Since they have their presence in different segments of the financial system, the level of supervision and resources applied by supervisors must be commensurate with the potential destabilization risk that such firms pose to domestic financial systems, and global financial systems. Supervisory co-operation across domestic and global financial systems becomes imperative in a scenario which requires increased information sharing and concerted action in a crisis. Further impact of policy changes spurred by Basel III would be critical in reducing the probability and impact of a SIFI failure.

43. The lessons of the crisis have shown that certain institutions failed for risks embedded in products even though they were assessed by supervisors as highly capitalized and highly liquid. This underscores weaknesses in determining capital sufficiency, which has both quantitative and a qualitative, aspects and involves a judgmental exercise. The capital assessment should be driven by the supervisor’s understanding of the legal, operating, and corporate governance structure of the organization and its primary strategies, business lines, risk management and internal control functions, which shape its unique and distinct risk profile and hence capital requirements.

44. While financial systems cannot be totally risk free, Supervisors need to assess risk in banks’ business models and have a reasonably accurate assessment of the balance between the risk taking capacity of a financial institution and the appropriate level of capital available to absorb unexpected losses and intervene early when there is an imbalance. Inadequate assessments and imbalances as also delays and unpreparedness for timely and decisive interventions can make the financial system highly vulnerable leading to potential loss of confidence.

45. On the other hand, excessive capital requirements could drive risk to less regulated entities which may pose potentially new risks to the system. The crisis revealed, blind spots in supervisor’s assessment of bank risks, as under highly stressed and largely unforeseen circumstances, they were found to be inadequately capitalized. The timely and accurate supervisory assessment of capital levels is critical. Given the systemic impact of SIFI failures, there is also the need for continuous and intense ***supervision of SIFIs.*** Supervisors need to

have a through the cycle mentality as times of economic serenity breeds complacence. Supervisors need to stay hungry and not necessarily foolish.

46. Supervisors also need to have a result oriented approach, focussing on outcome of stress tests and risk management processes within banks. They need to review whether they are commensurate with their assessment of the bank's risk profile. The lessons from the financial crisis showed that considerable supervisory attention was focussed on the governance frameworks and processes in areas such as risk management, credit risk approvals, board oversight, and capital adequacy assessments, without enough analysis to confirm that the outputs of the processes, given the business model of the bank and its products in terms of the risk profile and exposures were consistent with supervisory expectations. The crisis underscored flaws in bank's risk management practices and insufficient understanding by supervisors of the risks posed by increasing complexity of products and systems in banks.

47. The use of stress tests tools and its outcomes in understanding areas of risk and remedial action has emerged vital to the re-engineering processes in supervision. Data integrity and aggregation are key to effective risk management for banks and critical for ongoing supervision of SIFIs, as is consolidated supervision. There is also a need for wider customer education, and stringent customer suitability and appropriateness policies in place while selling structured products. This underscores the importance of a strong governance framework and compliance culture in banks.

Stress testing also forms a critical part of the banks' Internal Capital Adequacy Assessment Processes which are reviewed as part of the Reserve Bank's onsite supervision of banks. Within the Reserve Bank, the stress testing process – both top down stress testing of the entire banking system and bottoms up stress testing of individual banks – have been up-scaled.

48. The Reserve Bank conducts a series of stress tests periodically. Single factor sensitivity tests assess the impact of a range of stress scenarios on the credit, interest rate, foreign exchange rate, equity price and liquidity risks faced by banks and are conducted on quarterly basis. To assess the resilience of the system to adverse macroeconomic scenarios, stress testing analysis is carried out within a macro stress testing framework. Two major groups of macro testing exercises are conducted: one based on a multivariate regression, and the other based on a vector autoregressive (VAR) model. While the former allows evaluating the impact of a particular macroeconomic variable on the banking system's NPA and capital ratios, the latter reflects the impact of the overall economic stress situation on the NPA ratio and bank capital through a feed-back effect. The macro stress tests are also conducted on a quarterly basis.

49. In India, we have reviewed our supervisory processes for close and ongoing supervision of 12 large banks which account for nearly 53% of the assets of the banking system. The Supervisory Review of banks is being taken up this year, strengthened with lessons learnt from the pilot run of the previous year. To further refine and bench mark supervisory policies and processes with international best practices, a Steering Committee has been set up to examine the entire gamut of supervisory policy, processes ,rating methodology, etc.

50. Reserve Bank of India recognizes that the quality of supervision of SIFIs would be extended to other banks/FIs on a risk based approach. There is closer co-ordination with other Regulators and Supervisors through formal MoUs and ongoing dialogue through informal/formal channels and Supervisory Colleges, underscoring our appreciation of the need for close and co-ordinated supervision of large systemically important banks.

IV. Indian Scenario – regulatory framework in India / exchange control environment

51. In the Indian context, large scale external sector reforms (exchange control and other areas such as trade policy {customs/duties}) were initiated in the aftermath of the balance of payments crisis faced by India in 1990–91. Till this time the Indian economy was largely insulated from the world and was largely a closed economy in so far as cross border transactions (specially capital account transactions were concerned).

52. Some of the lessons which emerged for policy makers (from the BoP crisis of 1990–91) were that i) there were long term benefits of opening the economy both on the current and capital account, albeit in a phased / calibrated manner; ii) official capital flows in the form of debt / aid were unsustainable in the long run and therefore required to be replaced with private capital flows; and iii). public policy should actively differentiate and provide for preferential treatment between capital flows which are pure equity flows and debt flows (with FDI, portfolio flows and debt flows in descending order of preference).

53. The lessons learnt from the BoP crisis of 1990–91 were subsequently instrumental in framing appropriate public policies for the external sector (by the Government and the Central Bank). India became fully convertible on the current account in 1994 (barring a few quantitative restrictions and a small negative list of transactions {keeping in view larger public interests/good}) and therefore all current account transactions are freely allowed as long as they are for bonafide purposes and are routed through normal banking channels.

54. On the capital account front, India has been following a calibrated and gradual approach towards full capital account convertibility. This approach is based on the emerging macroeconomic and macro-prudential environment and broadly guided various concomitants[2]/indicators such as i) Fiscal Consolidation, ii) Monetary Policy Objectives, iii) Strengthening of the Banking System and, iv) External Sector Indicators (CAD, Adequacy of Reserves).

55. The primary objectives of the extant exchange control regime in India[3] are facilitating external trade and payments and for promoting the orderly development and maintenance of foreign exchange market in India. On the capital account front there has been a conscious policy effort to give precedence to equity flows over debt flows as well as FDI over portfolio flows.

56. Amongst the emerging market economies, India has a peculiar situation where we have a persistent current account deficit which has to be funded from the capital account surplus. While prima facie this should encourage us to move at a faster pace towards full capital account convertibility, a detailed analysis shows that increased and uninhibited capital inflows may (under certain circumstances) be more detrimental[4] than beneficial to the domestic economy as well as the overall BoP position. Thus the nature and amount of capital inflows has an important effect on the overall BoP as well as foreign exchange reserves of the country and exchange rate policies have to be suitably tweaked to harvest the beneficial effects of increased capital inflows while at the same time avoid the ill effects of the same. The entire emphasis in our forex management is to reduce reliance on short term flows and not using Forex Rate mechanism as a tool to manage monetary policy.

57. In conclusion, to quote an African proverb, "*Smooth seas don't make for good sailors*". The aftershocks of the crisis have made supervisors and regulators look inwards

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2 Report of the Committee on Fuller capital Account Convertibility, Reserve Bank of India, 2006.

3 The Foreign Exchange Regulation Act, 1973 was replaced by the Foreign Exchange Management Act in 1999.

4 Increased capital flows can lead to widening of the CAD, appreciation of the domestic currency (exchange rate appreciation) as well as the building up of increased inflationary pressures in the domestic economy.

and the insights on deficiencies in supervision and regulation is shaping many of the key initiatives in redefining and enhancing effectiveness of regulation and supervision. The Seminar, I am sure will help in further evolving and strengthening regulation and supervision of the financial system even in the most turbulent times.

I wish the seminar all success.

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4. "Financial Innovation, Regulation and Systemic Risk," presentation at CAFRAL, Tarun Ramadorai, September 2011.