V Leeladhar: Basel II and credit risk management

Inaugural address by Mr V Leeladhar, Deputy Governor of the Reserve Bank of India, at the programme on Basel II and Credit Risk Management, organised by the Centre for Advanced Financial Learning for the whole-time directors of the commercial banks, Goa, 15 September 2007.

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Mr. Gordy, Mr. Bhattacharya, distinguished participants, ladies and gentlemen,

I am delighted to be with you this morning at the inaugural of the third programme in the series being organised under the aegis of the Centre for Advanced Financial Leaning (CAFL) on the theme of Basel II and Credit Risk Management. I am indeed thankful to the organisers for providing me this valuable opportunity to share my thoughts on this very topical subject with this august audience – which, needless to say, has a pivotal role to play in implementing the Basel II framework in the Indian banking system. In fact, this programme itself, which has been tailor made for the whole-time directors of the Indian banks, signifies the importance the RBI attaches to sensitising the top management of the banks to the conceptual constructs underpinning the new framework.

2. I am inclined to believe that the Basel II framework is no longer a novelty for most of you. While the technical aspects of credit risk management in the Basel II environment will be covered during the course of this two-day seminar, I would like to present a brief bird's eye view of the evolution of the capital adequacy norm for the banks over the decades so as to put the new framework in perspective, the imperatives that led to its refinement in the form of Basel II, the expectations of the RBI from the banking system during the implementation phase and beyond, and the issues and challenges facing us that will need to be addressed in implementing the new framework in a non-disruptive manner.

The evolution of capital standards

3. It is interesting to note that till the 1980s, the risk-weighted approach to capital adequacy was not in vogue but the bank's capital was measured through the traditional gearing ratios. During the 1980s, the increasing competition amongst the international banks and rapid growth in their assets had led to concerns about their deteriorating capital levels. This concern was aggravated by the debt crisis in some of the emerging markets. While the national authorities and regulators in many countries began exhorting their banks to improve their capital ratios, it was realised that varying approaches to capital measurement across countries made international comparisons difficult and there was a need to evolve an internationally consistent approach to capital measurement. Moreover, the market developments by the mid-1980s, coupled with the regulatory pressures for improving the capital ratios for the on-balance sheet activities of the banks, had also witnessed a phenomenal growth in the banks' off-balance sheet business – which, at that time, was not subject to regulatory capital charge. In this background, the efforts were intensified in 1986 to evolve a common and risk-weighted approach to capital measurement rather than the traditional gearing measure. During 1987, the "Basle Committee on Banking Regulations and Supervisory Practices", as it was then named, arrived at a consensus on 8% as the minimum capital adequacy ratio. After a period of consultation with the banks around the world, this framework was formally adopted in 1988 and was widely endorsed by the supervisory community, world-wide. This standard came to be commonly known as the Basel Accord or Basel I Framework. It was the first ever attempt at harmonising the banks' capital standards across the countries, for securing greater international competitive equality and to obviate regulatory capital as a source of competitive inequality.

4. The Accord, in its original form, addressed only the credit risks in the banks' operations. It was only in 1996 that an amendment was made to cover the market risks also. The Accord had adopted a risk-sensitive approach for making the banks' capital more responsive to the riskiness of their operations. This meant that a bank with a higher risk profile would have to maintain a higher quantum of regulatory capital while also ensuring the minimum capital ratio. The framework also stipulated, for the first time, a regulatory capital charge for the off-balance sheet business of the banks so as to capture their risk exposures more comprehensively. Pursuant to the recommendations of the Committee on the Financial System (the first Narsimham Committee, 1991), this framework was implemented in India in 1992 in a phased manner.

The imperatives for Basel II

5. With the passage of time, it was realised that the Basel I framework had several limitations. The limitations related mainly to the underlying approach as also a less-than-comprehensive scope of the Accord in capturing the entire risk universe of the banking entities. Let me dwell a little more on these aspects.

First, the Accord had a broad-brush approach under which the entire exposures of banks were categorised into three broad risk buckets viz., sovereign, banks and corporates, with each category attracting a risk weight of zero, 20 and 100 per cent, respectively. Such a risk weighting scheme did not provide for sufficient calibration of the counterparty risk since, for instance, a corporate with "AAA" rating and one with "C" rating would attract identical risk weight of 100 per cent and require the same regulatory capital charge, despite significant difference in their credit standing. This, in turn, engendered a rather perverse incentive for the banks to acquire higher-risk customers in pursuit of higher returns, without necessitating a higher capital charge. Such bank behaviour could potentially heighten the risk profile of the banking systems as a whole. The design of the Accord was, therefore, viewed as distorting the incentive structure in the banking markets and dissuading better risk management.

Second, the Accord addressed only the credit risk and market risk in the banks' operations, ignoring several other types of risks inherent in any banking activity. For instance, the operational risk, that is, the risk of human error or failure of systems leading to financial loss, was not at all addressed – as were the liquidity risk, credit concentration risk, interest rate risk in the banking book, etc.

Third, since 1988, the emergence of innovative financial products had transformed the contours of the banking industry and its business model the world over. The credit-risk transfer products, such as securitisation and credit derivatives, enabled removal of on-balance sheet exposures from the books of the banks when they perceived that the regulatory capital requirement for such exposures was too high and hiving off such exposures would be a better strategy. The Basel I framework did not accommodate such innovations and was, thus, outpaced by the market developments.

6. In this background, a need was felt to create a more comprehensive and risk-sensitive capital adequacy framework to address the infirmities in the Basel-I Accord. The Basel Committee on Banking Supervision (BCBS), therefore, after a world-wide consultative process and several impact assessment studies, evolved a new capital regulation framework, called "International Convergence of Capital Measurement and Capital Standards: A Revised Framework", which was released in June 2004. The revised framework has come to be commonly known as "Basel II" framework and seeks to foster better risk management practices in the banking industry.

The objectives of Basel II

7. In order to better appreciate the impact of Basel II on the banking industry, it is worth recalling the objectives of the Basel Committee regarding the overall level of capital requirements. According to the revised framework, issued in June 2004:

> *"The objectives are to broadly maintain the aggregate level of minimum capital requirements, while also providing incentives to adopt more advanced risk-sensitive approaches of the revised framework".*

Governor Susan Schmidt Bies of the Federal Reserve System of the USA has described the objectives of Basel II a little more elaborately in the following words:

> *"The major objectives of Basel II include creating a better linkage between the minimum regulatory capital and risk, enhancing market discipline, supporting a level playing field in an increasingly integrated global financial system, establishing and maintaining a minimum capital cushion sufficient to foster financial stability in periods of adversity and uncertainty, and <u>grounding risk measurement and management in actual data and formal quantitative techniques</u>. Let me emphasize that last objective, since it is often overlooked. Critical to Basel II is the effort to improve risk measurement and management, especially at our largest, most complex organizations."*[1]

Thus, it would be reasonable to infer that the main focus of the new framework is on providing the right incentives to the banks to adopt data-based, quantitative risk management systems to be able to adopt the advanced risk-sensitive approaches of the revised framework, which, in turn, would contribute to systemic and financial stability. Hence, inducing the adoption of advanced risk management systems by the banking institutions would seem to lie at the heart of the new framework.

Select aspects of Basel II framework

8. Given the foregoing objectives of the new framework, it may be useful to take a brief stock of the salient aspects of this dispensation, which could be of particular interest to this audience.

A comprehensive approach

9. One of the unique aspects of Basel II is its comprehensive approach to risk measurement in the banking entities, by adopting the now-familiar three-Pillar structure, which goes far beyond the first Basel Accord. To recapitulate, these are: Pillar 1 – the minimum capital ratio, Pillar 2 – the supervisory review process and Pillar 3 – the market discipline. The Pillar 1 provides a menu of alternative approaches, from simple to advanced ones, for determining the regulatory capital towards credit risk, market risk and operational risk, to cater to the wide diversity in the banking system across the world. Pillar 2 requires the banks to establish an Internal Capital Adequacy Assessment Process (ICAAP) to capture all the material risks, including those that are partly covered or not covered under the other two Pillars. The ICAAP of the banks is also required to be subject to a supervisory review by the supervisors. The Pillar 3 prescribes public disclosures of information on the affairs of the banks to enable effective market discipline on the banks' operations.

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[1] Enhancing Risk Management Under Basel II; Remarks by Ms. Susan Schmidt Bies; at the Risk USA 2005 Congress on June 8, 2005.

10. As you are aware, RBI has already issued the guidelines for the new capital adequacy framework in regard to Pillar 1 and Pillar 3 on April 27, 2007. As regards Pillar 2, the banks have been advised to put in place an ICAAP, with the approval of the Board. A two-stage implementation of the guidelines is envisaged to provide adequate lead time to the banking system. Accordingly, the foreign banks operating in India and the Indian banks having operational presence outside India are required to migrate to the Standardised Approach for credit risk and the Basic Indicator Approach for operational risk with effect from March 31, 2008. All other Scheduled commercial banks are encouraged to migrate to these approaches under Basel II in alignment with them, but, in any case, not later than March 31, 2009. It has been a conscious decision to begin with the simpler approaches available under the framework, having regard to the preparedness of the banking system. As regards the market risk, under Basel II also, the banks will continue to follow the Standardised-Duration Method as already adopted under the Basel I framework. For migration to the advanced approaches available under the framework, prior approval of the RBI would be required.

Pillar 2 considerations

11. While the implications of Pillar 1 and Pillar 3 are fairly well known in the banking community, the importance of Pillar 2 in the new framework is perhaps not that well understood. I would, therefore, like to take this opportunity to dwell a little more on the criticality of effective implementation of Pillar 2 by the banks while adopting the new framework, in view of its importance.

12. As I mentioned earlier, the Pillar 2 of the framework deals with the “Supervisory Review Process” (SRP). The objective of the SRP is to ensure that the banks have adequate capital to support all material risks in their business as also to encourage them to adopt sophisticated risk management techniques for monitoring and managing their risks. This, in turn, would require a well-defined internal assessment process within the banks through which they would determine the additional capital requirement for all material risks, internally, and would also be able to assure the RBI that adequate capital is actually held towards their all material risk exposures. The process of assurance could also involve an active dialogue between the bank and the RBI so that, when warranted, appropriate intervention could be made to either reduce the risk exposure of the bank or augment / restore its capital. *Thus, ICAAP is an important component of the Supervisory Review Process.* What is important to note here is that the Pillar 1 stipulates only the **minimum** capital ratio for the banks whereas the Pillar 2 provides for a bank-specific review by the supervisors to make an assessment whether all material risks are getting duly captured in the ICAAP of the bank. If the supervisor is not satisfied in this behalf, it might well choose to prescribe a higher capital ratio, as per its assessment.

13. I would like to emphasise that the ICAAP under the Pillar 2 is the element which makes the Basel II framework comprehensive in its sweep by addressing the entire risk domain of the banks. As I mentioned, the ICAAP is expected to address all *material* risks facing the bank but the three main areas in particular viz., those aspects not *fully* captured under the Pillar 1 process; factors not taken into account by Pillar 1 process; and the factors external to the bank. Another dimension of the ICAAP would be to monitor compliance with the Pillar 1 and Pillar 3 requirements. Thus, illustratively, we would expect the banks’ ICAAP to take account of the credit concentration risk, interest rate risk in the banking book, business and strategic risk, liquidity risk, and other residual risks such as reputation risk and business cycle risk. The challenge for the banks would be to quantify these risks and then, to translate those consistently into an appropriate amount of capital needed, commensurate with the bank’s risk profile and control environment. Needless to say, this would call for instituting sophisticated risk management systems, including a robust stress-testing and economic capital allocation framework, coupled with strong validation mechanisms to ensure the integrity of the entire ICAAP, to be able to achieve the objectives underpinning the ICAAP and the Supervisory Review envisaged under Pillar 2. I am sure, the Pillar 2 dimension would

be receiving the high priority it deserves in the implementation strategy of the banks. It is useful to note that the ICAAP, as its name suggests, is envisaged to be essentially a bank-driven process, which would of course be subject to a supervisory review.

The parallel run

14. Another aspect which I would like to mention here today is the parallel run prescribed by the RBI which the banks were required to carry out since June 2006, as a prelude to migration to the simpler approaches of Basel II. The objective was to familiarise them with the requirements of the new framework. During the period of parallel run, the banks are required to compute, parallely, on an on going basis, their capital adequacy ratio – both under Basel I norms, currently applicable, as well as the Basel II guidelines to be applicable in future. This analysis of the capital adequacy ratio is to be placed before the Boards of the banks every quarter and is also transmitted to the RBI. In addition, an assessment of compliance with the Board-approved policies on collateral management, credit risk mitigation, disclosures and ICAAP, adequacy of the management information system, impact of various elements of the portfolio on the capital adequacy ratio, as also the results of the process for validating the CRAR are also to be placed before the Board. The validation mechanism, to my mind, would be a critical element of the parallel run as it would help ensuring the accuracy and integrity of the entire process. I would urge all of you to pay due attention to the parallel run exercise in the interest of smooth migration to Basel II on the cut off date.

Migration to advanced approaches under Basel II

15. As I mentioned earlier, the Basel II framework provides a menu of alternative approaches for determination of regulatory capital for credit, market and operational risks. While in India, we have decided to implement the simpler approaches within the stipulated timeframe, as regards migration to the advanced approaches, the RBI has not indicated any specific timeframe. However, the banks that plan to migrate to the advanced approaches would need prior approval of the RBI – for which requisite guidelines would be issued in due course. Nonetheless, the banks planning such migration would be well advised to undertake an objective and rigorous self-assessment vis-a-vis the qualifying criteria envisaged under the Basel II framework for adoption and ongoing use of the advanced approaches. Such an assessment would be helpful for the banks in chalking out a realistic roadmap for a smooth switchover to the advanced approaches, as and when these are introduced by the RBI.

16. It needs to be, however, borne in mind that implementation of advanced approaches under Basel II, particularly for the credit risk, would be a data-intensive exercise. While the data needs under the simpler approaches would be largely similar to those under the Basel I framework, the data requirements of banks would be significantly higher to even qualify for adopting the Advanced Approaches as the banks would require adequate and acceptable-quality historical data to compute the capital requirements under the Advanced Approaches. At the minimum, banks may need to have acceptable historical data for the past five to seven years for computing the risk parameters such as probability of default, loss given default and operational risk losses. The banks which consider migration to advanced approaches will, therefore, need to first build up a comprehensive database for the purpose.

Credit risk management under Basel II

17. Even though Basel-II framework has a broader scope and includes “operational risk” under Pillar 1 and public disclosures under Pillar 3, the credit risk still claims the largest share of the regulatory capital. This underscores the significance of credit risk in the bank’s operations. This is hardly surprising reckoning that the several banking crises in many countries had their roots in lax credit standards, poor portfolio risk management, and the inability or failure to evaluate the impact of the changing economic environment on credit

worthiness of the banks' borrowers. The sub-prime crisis in the USA is the most recent example of the inadequate credit risk assessment. The advent of advanced approaches for credit risk in India under the Basel II Framework in the days to come, could be expected to provide an impetus for adopting more sophisticated credit risk management techniques in banks.

18. In this context, I would like to recall that as far back as in October 1999, the RBI had issued guidelines, with an integrated approach, on risk management in banks. Having regard to diversity of banks, they were advised to design their own risk management architecture, in tune with their size, complexity of business, risk philosophy, market perception and the level of capital. With a view to fine tuning the risk management systems in banks and to help smaller banks in achieving the minimum standards, RBI has also issued guidance notes on management of credit and market risk in October 2002. While the broad principles underlying the guidelines would still be valid, banks would be well advised to modernize and upgrade their risk management configuration in step with the market developments.

The path ahead

19. Before I conclude, let me briefly touch upon a few of the issues and challenges that could emanate from the adoption of Basel II framework, particularly, in the Indian context.

First, it is understood that the Basel II framework provides for as many as about 130 areas of national discretion to be exercised by the country supervisors, as per local conditions. Thus, it has been argued that potentially, there could be 130 variations of the new framework under different jurisdictions. If that be the case, the international comparability of the bank-capital standards would be difficult to achieve across the countries and perhaps, the original objective of reducing the international competitive inequality amongst the banks could get compromised.

Second, with migration to the advanced approaches in future, the banks following the advanced approaches are likely to have a more risk-sensitive architecture for capital computation compared to those on the standardised approach. This could potentially lead to the riskier assets gravitating towards the banks on the less-risk-sensitive Standardised Approach, which would need lower capital for such assets than the banks on the advanced approaches, while the high quality assets flowing to the banks on the advanced approaches. This could ultimately result in a lower amount of capital in the system as a whole, which might not be a very welcome prospect, specially from the supervisory perspective.

Third, while the Pillar III disclosures could be quite useful for the market analysts and sophisticated users of this information, the utility of such disclosures for the common man remains a moot point. Besides, the disclosures under Basel II will also need to be harmonised with those required under the International Financial Reporting Standards so as to avoid any conflicts and excessive burden of disclosure.

Fourth, in the Indian context, the rating penetration is very low and is generally confined to the larger corporates while the smaller entities are generally unrated. With the adoption of the Standardised Approach in India, which places heavy reliance on the external rating of the bank clients, a view has been expressed that the small and medium enterprises, which are below the rating threshold, may get somewhat handicapped in availing bank credit in the absence of credit rating. This may perhaps call for special efforts to maintain the credit flow to this segment of the borrowers.

Fifth, the risk sensitive approach of the Basel II Framework is likely to give rise to pro-cyclicality in the capital requirements of the banks since in an economic downturn, the capital requirements would rise but will decline during an economic boom. It is argued that such an impact on the banks could accentuate the effects of the cycle and could increase the volatility in the banking system.

Finally, in implementing the new framework, which requires specialised skill sets, the challenge of human resource management for the Indian banking sector would be a constraint to reckon with. The banks would, therefore, need to evolve innovative HRM practices to be able to attract and retain the right mix of people to ensure effective operationalisation and maintenance of sophisticated risk management infrastructure.

Conclusion

20. In conclusion, I would only like to stress that the central message of the Basel II Framework is the progressive refinement and sophistication of the risk management configuration of the banking system. The banks with better risk management skills would not only have competitive advantage in the market place but would also be better positioned to capitalise on the opportunities for organic and inorganic growth. While the Basel II framework creates an enabling environment for enhancing the risk management capability in the banks by providing the right incentives, it is entirely up to you to grasp the nettle and upgrade the risk governance in your organisation to achieve a sharper risk-reward profile. I am confident that the deliberations at this two-day seminar would provide you valuable insights into the relevant issues to enable a smoother migration to the new framework. I wish the deliberations at the seminar all success.

Thank you.