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The Journey from Basel I to Basel III and Implications for Indian Banks

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Abstract

The Bank for International Settlements has devised the Basel norms in an attempt to set international norms for risk management in banks. While Basel I played a major role in creating awareness of the importance of capital in managing banking risk, Basel II emphasized the forms of capital recognized in capital adequacy measures. The Basel III norms have emerged against the background of the global banking crisis of 2007. Basel III primarily aims to boost banks' capital, get banks to move away from short-term funding, improve risk management and governance, and strengthen banks' transparency and disclosures. As Indian banks make the transition to Basel III, they will face the challenge of meeting the credit needs of a growing economy, as also the needs of socially responsible banking, while adjusting to a more stringent regulatory regime in terms of raising more and better quality capital, greater provisioning and upgrading their risk management systems.

Key words : Basel norms, capital adequacy, Indian banks, Risk management.

Introduction :

During the last two decades, there have been several developments at the global and national level, which have impacted the operating environment of banks. Liberalization, globalization, the introduction of new financial products and services and the huge strides in technology and communication have wrought significant changes in the working of banks. The banking industry is undergoing significant transformations in products, in customer base and in channels of delivery.

Banks are at the centre of the credit intermediation process of every economy - through their role as lenders, market makers, providers of liquidity, and payment services. A crisis in the banking sector is therefore bound to have huge repercussions on the economy, in the form of financial and economic downturns, and clearly all efforts must be made to prevent their occurrence. Yet, banking crises have occurred about once every 20 to 25 years in both industrial and emerging market economies, implying an annual probability of about 4-5%, which is too high (Walter 2010). It is noteworthy that the incidence of banking crises has been about the same for advanced economies as for emerging markets and also that as financial markets have developed in the smaller, poorer economies, the frequency of banking crises has increased (Reinhart & Rogoff 2008).

With financial risks growing in size and probability, proactive, efficient and integrated risk management practices are called for to strengthen banks and protect the interests of stakeholders such as depositors, shareholders and employees. In an effort to set global standards for risk management in banks, the Bank for International Settlements based in Basel, Switzerland, set up the Committee on Banking Supervision (BCBS). The Committee has so far arrived at three sets of recommendations for banks, popularly known as Basel I, Basel II and Basel III norms. The Basel norms are broadly speaking, rules written by the BCBS, whose mandate is to define the reform agenda for the global banking community as a whole.

This paper highlights the important provisions of all three versions of the Basel norms, and details the implications of Basel III for Indian banks.

Basel I

Basel I was very simple in its approach. It essentially focused on standards for measuring credit risk and specified the minimum level of capital as a function of risk weighted assets while simultaneously defining the components of regulatory capital. It was agreed that banks would maintain a minimum capital of 8% of risk weighted assets. Different risk weights were assigned for specified categories of exposure. For example, Government securities carried zero risk weight while at the other end were corporate exposures, which carried 100% risk weight. In India, the RBI stipulated a higher minimum capital adequacy of 9%. Basel I broke ground mainly in generating awareness of the importance of capital in managing banking risk. More than 100 countries, including India, adopted Basel I.

Before Basel standards, central banks set minimum capital requirements for commercial banks in absolute terms or as a gearing ratio (Leeladhar 2007). Central banks decided on these requirements as they saw fit and in keeping with local conditions and circumstances. Basel norms introduced two major changes over this situation – first, common global standards were introduced and second, the norms aligned capital to the quantum of risks borne by a bank. The major contribution of Basel I lay in the fact that it pioneered international convergence on measuring banking risks and defining capital standards.

On the other hand, the major weakness of Basel I was its 'one size fits all' approach. It stipulated a single rate of capital adequacy for credit risk irrespective of the degree of risk within that category. For e.g., a corporate with AAA rating and another with C rating would attract identical risk weight of 100% and require the same regulatory capital charge, despite significant difference in their credit standing. Banks could thus 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 system as a whole, endangering the stability of the financial system. The design of Basel I was therefore, viewed as distorting the incentive structure in financial markets and discouraging better risk management (Leeladhar 2007). The Accord also did not adequately address the risks involved in the increasing use of financial innovations like securitization of assets and derivatives and the credit risk inherent in these developments (Varghese 2005). Furthermore, it focused entirely on credit risk, overlooking other types of risks such as liquidity risk, market risk and operational risk, which were no less significant than credit risk.

Against this background, a need was felt to create a more comprehensive and risk-sensitive capital adequacy framework to address the shortcomings in the Basel-I Accord. Thus was born Basel II, seeking to foster better risk management practices in the banking industry.

Basel II

Basel II, the second set of recommendations issued by the BCBS, adopted a more comprehensive risk management approach for the banking system and tried to ensure that the capital recognized in capital adequacy measures provided adequate protection to depositors. One of the major objectives of Basel II was to encourage banks to adopt modern data-based quantitative risk management techniques and ensure that their risk management capabilities are commensurate with the risks of their business; this would contribute to financial and systemic stability (Leeladhar 2007). Basel II was expected to foster financial stability through its risk sensitive framework which would encourage banks to adopt improved risk management practices, require supervisors to review the efficiency of banks' risk management practices and capital allocation methodologies, and empower market participants to make informed judgments on the efficiency and soundness of banks.

The RBI initially asked commercial banks in India to start implementing Basel II with effect from March 31st, 2007, but the date was later extended to March 31st, 2009. Today, banks in India are Basel II-compliant.

Basel II adopted a three pillar approach to risk management (Varghese 2005).

1. Pillar 1 stipulated *minimum capital requirements* for different types of risks. In place of the simple common standard under Basel I, Pillar 1 introduced advanced methods for capital allocation in the case of credit and market risks. It also introduced an explicit capital charge for

operational risk over and above credit risk and market risk. Thus Pillar 1 required that banks assess credit risk, market risk and operational risk and provide for adequate capital to cover the risks.

2. Pillar 2 dealt with *supervisory review process* by the central bank. It was felt that compliance of requirements under Pillar 1 and providing adequate capital alone may not be enough to prevent bank failures and to protect the interests of depositors. Therefore under Pillar 2, supervisors are expected to evaluate how well banks are assessing their capital needs relative to their risks and to intervene where appropriate. The idea was that when deficiencies are identified, prompt and decisive action can be taken to reduce risk or restore capital.
3. Pillar 3 underlined the need for *market discipline*. It stipulated disclosure requirements for banks so as to help market participants assess the information on capital, risk exposures, risk assessment processes and capital adequacy of the bank. Market discipline supplements regulation as sharing of information facilitates assessment of the bank by investors, analysts, customers, other banks and rating agencies. It also leads to good corporate governance. A transparent organization may create more confidence in the investors, customers and counter parties with whom the bank has dealings. It would also be easier for such banks to attract more capital.

It was thought that the adoption of Basel II would entail higher capital requirements for Indian banks, but most banks were well within the CRAR prescribed under Basel II. However, the Government of India announced recapitalization packages for five public sector banks which could not meet the prescribed CRAR. Other problems encountered in Basel II implementation include the high cost of up gradation of technology including the cost of training staff, the lack of adequate number of rating agencies and the question of the reliability of the entire rating process. The last problem in particular is very relevant as the recent banking crisis has raised questions about the dependability of ratings issued by credit rating agencies.

The global banking crisis of 2007 occurred as banks in India were in the process of migrating from Basel I to Basel II. There are many factors that led to the buildup of the crisis, the most significant being excess liquidity, resulting in too much credit and weak underwriting standards. The banking sector in the advanced nations could not deal with the resultant risk due to their excess leverage and inadequate quality capital. The crisis was further worsened by a Procyclicality deleveraging process and the interconnectedness of systemically important, too-big-to-fail financial institutions. Finally, there were major shortcomings in the areas of risk management, corporate governance, market transparency, and the quality of supervision (Walter 2010).

Basel III

Global regulators and central bank governors recently reached a deal on Basel III, the primary objective of which is to improve the banking sector's ability to absorb shocks arising from financial and economic stress, thereby reducing the risk of spillover from the financial sector to the real economy. Basel III aims to boost banks' capital, get banks to move away from short-term funding, improve risk management and governance as well as strengthen banks' transparency and disclosures. The agreement on Basel III came after two years of intense discussion and debate between those demanding tougher reserve requirements and their opponents arguing that unduly stringent norms would seriously hurt banks' profitability and stifle financial innovation (The Economist 2010). Implementation will be done in phased manner between 2013 and 2019.

Basel III contains both micro prudential and macro prudential measures, since greater strength at the individual bank level reduces the risk of system-wide shocks. In other words, global regulators are now looking at the financial stability of the system as a whole along with micro regulation of individual banks (Economic Times 2010), a change in approach prompted by the recent global financial crisis that plunged the entire global economy into recession.

The Basel III proposals can be discussed under two heads – bank-specific reforms and those relating to the financial stability of the entire banking system (Walter 2010).

A. The major *bank-specific proposals* under Basel III are outlined below.

1. First, the key capital ratio has been raised to 7% of risky assets, so as to enable banks to withstand future shocks. Further, the quality, consistency, and transparency of the capital base are to be raised.

   The capital base currently has three components, viz. Tier 1, Tier 2 and Tier 3 capital. Tier 1 core capital which includes retained earnings and common equity will be raised from 2% to 4.5% starting in phases from January 2013 to be completed by January 2015, while total Tier 1 capital has been set at 6% compared with 4% under Basel II.

   Tier 2 capital instruments are to be harmonized. Presently, Tier 2 capital is sub-divided into upper and lower Tier 2 capital. Upper Tier 2 capital has no fixed maturity, while lower Tier 2 capital has a limited life span, which makes it less effective in providing a buffer against losses by the bank.

   Tier 3 capital consists of short-term subordinated debt (which can be used to provide a buffer against losses caused by market risks if Tier 1 and Tier 2 capital are insufficient). This tier of capital is to be eliminated under Basel III.

2. Second, the risk coverage of the capital framework has been strengthened, especially in the area of capital market activities, new financial instruments and financial innovations. Higher capital requirements have been set for trading, derivative and securitization activities of banks and their subsidiaries. These norms have been designed to create incentives to use central counterparties and exchanges and discourage banks from engaging in over-the-counter (OTC) trading.

3. Third, Basel III includes a series of measures to promote the build-up of capital buffers in good times that can be drawn upon in periods of stress. The objective of this is to reduce Procyclicality and promote countercyclical buffers.

4. Fourth, a liquidity buffer is to be made mandatory by January 2018. This buffer would be in the form of a global minimum liquidity standard for

internationally active banks that includes a 30-day liquidity coverage ratio requirement. The idea is that just as they need to hold capital to absorb unexpected losses, banks must protect themselves against periods of stressed liquidity.

5. Lastly, the standards for supervision, risk management and public disclosure are stronger, stricter and more comprehensive. The Pillar 2 supervisory review process of the Basel capital framework, particularly in the areas of corporate governance, risk appetite, risk aggregation, and stress testing has been strengthened. Pillar 3 transparency requirements have also been stepped up for more complex capital markets activities

B. The *macro prudential elements* of the package relate to the financial stability of the entire system and have been prompted by the shortcomings revealed by the crisis.

1. First the capital-to-risk-weighted assets ratio (CRAR) is to be supplemented with a leverage or debt-equity ratio (likely to be pegged at 3% of Tier 1 capital) to ensure banks do not overreach themselves. The leverage ratio is expected to prevent the build-up of excess leverage in good times and thus reduces the negative effects of deleveraging in periods of stress.

2. Second, there are measures to raise capital levels in good times so that they can be drawn down during a downturn to reduce procyclicality. A countercyclical capital buffer has also been introduced to protect the system against excess credit growth.

3. Third, globally systemically important banks (commonly considered to be too-big-to-fail) will be required to have additional loss absorbency capacity beyond the Basel III requirements.

Every set of Basel norms has been an improvement over its predecessor. But rules are ineffective unless accompanied by competent and continuous supervision, a fact highlighted by the recent global banking crisis. Central banks and regulators in most developed markets, particularly the US and the UK, failed in this critical sphere (Bhusnurmath 2010). Their dependence upon ‘light touch regulation’ contributed in no small measure to first their own, and then the global, financial and economic crisis, which has been the worst the world has experienced since the Great Depression.

India was spared the worst impact of the crisis, the credit for which should go largely to the Reserve Bank of India and also to our careful bankers. But this does not imply that the Indian banking system should not reform and evolve. In an increasingly borderless world, we are vulnerable to instability anywhere in the global financial system. Furthermore, it is important to understand that we did not escape the crisis completely – we were better off vis-à-vis other countries, but millions of Indians paid a heavy price as the crisis slowed down the country's growth momentum and also therefore the translation of that growth into poverty reduction (Subbarao 2010).

Basel III and Indian Banks

Indian banks have only recently made the transition to Basel II-compliance. As mentioned earlier, this compliance did not impose too much of an additional burden in terms of raising capital. The same cannot be said for Basel III.

The requirements for capital will certainly be much higher. Banks will need more equity capital since Tier I capital has been raised and new capital norms have been introduced for trading in derivatives and other securities. Further, as the economy continues to grow, credit needs will also multiply giving rise to still further requirements for capital. The slow economic recovery in the advanced nations has already impacted Indian businesses, and the quality of banks' portfolios is likely to have deteriorated, which means more capital would be needed for meeting provisioning requirements. All in all, banks in India are going to have to need fresh capital. In the past, many public sector banks have raised capital through hybrid recapitalization bonds, which have to be phased out under the new capital norms. Possible fallout of this could be disinvestment in public sector banks by the Government of India, as the government would not be in a position to provide the additional equity, forcing banks to approach the capital market for fresh equity.

In early May 2012, the RBI released final Basel III capitalization standards for Indian banks that are more conservative than those prescribed by the BIS. The RBI's standards specify minimum Tier-I capital ratios that are 1 percentage point higher than Basel III standards, and require that Tier 1 capital is of higher quality than the BIS requirements. Furthermore, India's Basel III standards mandate a capital conservation buffer of 2.5 per cent of risk weighted assets built from core equity to be achieved nearly two years earlier than Basel III's schedule.

Estimates by Crisil (Krishnan & Roy 2012) put the total capital requirement of banks to be in the region of Rs 30,000 crore a year. In the eight years since Basel II norms were announced, Indian banks have raised a total of Rs 80,000 crore or about Rs 10,000 crore a year. This would have to triple from 2013 onwards. The big question is whether such fund-raising would be feasible.

The RBI governor however is confident that it will not be difficult for the Indian banking system to adjust to the Basel III norms well within the phase-in period (Subbarao 2010). Banks in India are well-capitalized, and are already maintaining a higher equity capital ratio than stipulated in the proposed Basel III guidelines. The average equity capital ratio and overall capital adequacy ratio of the rated banks were 9.1% and 14.4% as on March 31^{st} 2011 as against the proposed 7% and 10.5% respectively. For banks that fall short, the favorable environment of economic growth will allow them to strengthen their capital bases through issue of fresh equity.

Another concern is that the traditional performance metric - Return on Equity (RoE) - will take a hit due to a combination of higher core equity, leverage ratio and phasing of inadmissible instruments. During the last few years, Indian banks have generated an average RoE of almost 15% and this is likely to drop. Financial analysts predict a fall in RoE of 150-180 basis points for every increase of 100-120 basis points that core equity capital increases (Chakraborty & Sokhi 2012). Banks will need to seriously review costs and other aspects of their performance if they wish to maintain the high levels of RoE that the sector has consistently produced in recent times.

There is also the factor of dynamic provisioning, i.e. greater provisioning during a downturn, which again will mean more capital to be maintained during difficult times, putting further pressure on banks' profitability.

There will be some other very real challenges for banks, such as the challenge of upgrading risk management systems. Here it should be mentioned that risk management systems must also be upgraded to account for environmental risk factors, i.e. the risk that borrowers may fail to comply with, or fall short of environmental regulations, or that borrowers could cause severe environmental damage and face closure, etc. In the current scenario of heightened environmental awareness, banks need to ensure that their risk management systems are prepared for such eventualities (Mallya 2012).

Another major worry for banks could come from the treatment of their pension liabilities (Rangan & Bhoira 2012). With its stronger focus on the quality of capital after the financial crisis, the RBI has proposed full recognition of liabilities from defined benefit pension funds in the calculation of the Tier 1 capital to ensure that the bank is able to absorb losses, and to remove the risk of this being used to protect depositors and other creditors. Thus from January 1, 2013, **pension funds that have not been provided for will be deducted from the share component of a bank's tier I capital, thereby lowering the bank's equity and its capital adequacy ratio.**

Public sector banks are set to face a more difficult time than the private sector banks (Krishna & Roy 2012), for a variety of reasons, the most important one being the questions over the financial strength of their owner, viz. the Govt. of India. Secondly, in the recent past, these banks have accumulated more NPAs than private sector banks and lastly, they have to make provisions for the unprovided-for pension funds mentioned above.

The RBI is also planning to look into what it calls 'shadow banking' activities and tighten norms here as well. Shadow banking refers to financial sector services beyond the active regulatory purview of central banks. The RBI is of the opinion that it was the unregulated increase in this shadow banking that was responsible for the global financial meltdown (Business

Standard 2012).

Finally, all banks will face the difficult challenge of meeting the credit needs of a growing economy, as also the needs of socially responsible banking, while adjusting to a more stringent regulatory regime.

Conclusion

Banks are in the business of risk and they face a myriad of risks in their daily operations. These risks have multiplied in recent times due to factors like globalization, financial innovations, increasing complexity of financial products etc. The Basel norms introduced by the BIS are aimed at establishing global standards for measuring, managing and protecting against these risks.

The journey from Basel I to Basel III has been an eventful one and the Basel norms reflect the lessons learned. Each set of norms has been characterized by greater sophistication and more comprehensive coverage than the preceding set.

This paper has outlined the major provisions of all three sets of Basel norms and looked at the major implications of Basel III for Indian banks.

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