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Shift from Basel II to Basel III – A Reporting Perspective on Indian Banking Sector

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Abstract

Environment in which a modern commercial bank operates is impacted by multifaceted issues which render the risk management an inevitable activity for the commercial banks. As the primary business of a commercial bank involves extensively dealing with outsider's funds, thus a high level of trust and confidence are integral towards their operational framework. Basel Accords, initiated by the Basel Committee on Banking Supervision (BCBS) were primarily aimed to promote safer banking practices on the one side and enable the average banking customer to access the details of bank's annual financial performance through mandatory disclosures on the other. The present papers aims to highlight the gradual amendments initiated within the Basel accords from version II to latest version III. An effort has been made to find out whether Indian commercial banks are ready for the Basel III norms, by analyzing the annual reports of the major public and private sector banks for the year ended 2010-11.

Keywords: *Risk Management, Basel-II, Basel-III, Commercial Bank*

1. Introduction

Rapid transformation of financial system around the globe has brought about significant changes in banking sector across the countries. Though new avenues have opened up for augmenting revenues, yet new processes and technological progress exposed banking sector to higher risk. Therefore, need was felt for strengthening the soundness and stability of banks and to protect depositors and financial system from disastrous developments which could threaten the banks solvency.

Basel Committee on Banking Supervision (BCBS) under the auspices of BIS (Bank for International Settlements) took initiative in putting in place adequate safeguards against bank failure with cooperation of central banks across the globe. The first initiative from BIS came in the form of Basel I Accord with over 100 central banks in different nations accepting the recommendations. The accord forwarded a framework for fair and reasonable degree of consistency in the application of capital standards in different countries, on a shared definition of capital (RBI, 2001). But subsequently over a period of time, the *'one size fits all'* approach of Basel-I was found wanting on multiple grounds rendering it operationally redundant. This paved the way for more resilient and sound supervisory & regulatory frameworks proposed as a part of Basel-II accord and the most recent Basel-III accord.

2. Review of Literature

Recognizing the need for a more comprehensive, broad-based and flexible framework, Basel Committee proposed an improved version of the accords in 1999 which provides for better alignment of regulatory capital with the underlying risk and also addresses the risk arising from financial innovation thereby contributing to enhanced risk management and control.

Basel II captured the risk on a consolidated basis for commercial banks having active international operations and tried to ensure that capital recognized and set aside in capital adequacy measures provide adequate protection to depositors. It capitalizes on the modern risk management techniques and seeks to establish a more risk sensitive linkage between the operations of the bank and their capital requirements. It also acts as a major incentive for banks towards improving their risk management systems (Leeladhar, 2007).

The foundation of Basel-II rests on three mutually reinforcing pillars that enable banks and regulators to evaluate objectively the various risks that banks face and realign regulatory capital more closely with the underlying risks identified. The pillars forming the part of Basel-II are:

2.1 Pillar – I: Minimum Capital Requirement

The initial pillar of the Basel-II accord deals with maintenance of regulatory capital i.e. minimum capital required by banks as per their risk profile. As in Basel-I, Basel-II also forwards similar provisions relating to regulatory capital requirement i.e. 8% Capital Adequacy Ratio (CAR). CAR under Basel-II is the ratio of Regulatory capital to risk weighted assets which portrays the amount of regulatory capital to be maintained by banks to guard against various risks inherent in banking system.

*CAR = Total Regulatory Capital (Tier I + Tier II + Tier III) ÷ Risk weighted Assets**
* Includes Credit Risk, Market Risk and Operational Risk

2.2 Pillar – II: Supervisory Review

The second pillar of Basel II provides key principles for supervisory review, risk management guidance and supervisory transparency and accountability. Pillar II comprises the following key aspects:

- Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.
- Regulators should review and evaluate bank's internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios and should take appropriate action if they are not satisfied with the result of this process.
- Regulators should expect banks to operate above the minimum prescribed regulatory CAR.
- Regulators should intervene at an early stage to prevent capital from declining below the benchmark level. (BIS 2006).

2.3 Pillar – III: Market Discipline

The aim of Basel II pillar 3 is to improve market discipline through effective public disclosure to complement requirements under Pillar 1 and Pillar 2. Pillar 3 relates to periodical disclosures to regulators, board of bank and market about various parameters which indicate risk profile of bank (Goyal and Agrawal, 2010). It introduces substantial new public disclosure requirements and allows market participants to analyze key pieces of information on the scope of application, capital, risk exposures, risk assessment and management processes, and hence the capital adequacy of the institution.

The three pillars of the Basel-II framework provides a kind of "triple protection" by embracing three complementary approaches that work together towards ensuring the capital adequacy of institutional practices (Roldan, 2005). Taken individually, each pillar has its merits, but they are even more efficient when they are synergized in a common framework.

3. Basel III – A Global Regulatory Standard on Capital Adequacy, Stress Testing and Market Liquidity of Commercial Banks

The pronounced deficiencies in financial regulation during the late 2000 financial crisis led to development of the third installment of Basel Accords (popularly referred to as Basel III) based on agreement reached between the members of the Basel Committee of Banking Supervision in 2010-11.

Basel-III strengthens bank capital requirements and introduces new regulatory requirements on bank liquidity and bank leverage. For instance, the change in the *'calculation of loan risk'* in Basel II which is widely considered a causal factor in the subprime credit bubble prior to the financial collapse; in Basel II one of the principal factors of financial risk management was outsourced to companies that were not subject to supervision, *'credit rating agencies'*. Ratings of creditworthiness and of bonds, financial bundles and various other financial instruments were conducted without supervision by official agencies, leading to AAA ratings on mortgage-backed securities, credit default swaps, and other instruments that proved in practice to be extremely bad credit risks. In Basel-III, a more formal *'Scenario Analysis'* is applied (i.e. three official scenarios forwarded by the regulators, with ratings agencies urged to apply more extreme ones).

Basel III require banks to hold 4.5% of common equity (up from 2% in Basel II) and 6% of Tier I capital (up from 4% in Basel II) of risk-weighted assets (RWA). Basel III also introduced additional capital buffers, (i) a mandatory capital conservation buffer of 2.5% and (ii) a discretionary countercyclical buffer, which allows national regulators to require up to another 2.5% of capital during periods of high credit growth. In addition, Basel III introduced a minimum 3% leverage ratio and two required liquidity ratios. The '*Liquidity Coverage Ratio'* requires a bank to hold sufficient high-quality liquid assets to cover its total net cash outflows over 30 days; the '*Net Stable Funding Ratio*' requires the available amount of stable funding to exceed the required amount of stable funding over a one-year period of extended stress (Committee on Financial Services, 2011).

4. Basel III – A Summary of Proposed Changes

The quality, consistency and transparency of the capital base will be raised.

- Tier 1 Capital: The predominant form of Tier 1 capital must be common shares and retained earnings.
- Tier 2 Capital instruments to be harmonized.
- Tier 3 capital to be eliminated to ensure that market risks are met with the same quality of capital as credit and operational risks. (BCBS, 2009)

The risk coverage of the capital framework will be strengthened.

- Promote more integrated management of market and counterparty credit risk.
- Add the CVA (credit valuation adjustment) i.e. risk due to deterioration in counterparty's credit rating.
- Strengthen the capital requirements for counterparty credit exposures arising from banks' derivatives, repo and securities financing transactions.
- Raise the capital buffers backing these exposures.
- Reduce pro-cyclicality.
- Raise counterparty credit risk management standards by including wrong-way risk.

The Committee introduced a leverage ratio as a supplementary measure to the Basel II risk based framework. The leverage ratio requirement is intended to achieve the following objectives:

i. Put a floor under the build-up of leverage in the banking sector.

ii. Introduce additional safeguards against model risk and measurement error by supplementing the risk based measure with a simpler measure that is based on gross exposures.

The Committee introduced a series of measures to promote the build-up of capital buffers in good times that can be drawn upon in periods of stress (i.e. reducing pro-cyclicality and promoting countercyclical buffers).

- The Committee introduced a series of measures to address pro-cyclicality:
  - Dampen any excess cyclicality of the minimum capital requirement;
  - Promote more forward looking provisions;
  - Conserve capital to build buffers at the individual banks and the banking sector that can be used in stress; and
- Achieve the broader macro-prudential goal of protecting the banking sector from periods of excess credit growth.
  - Requirement to use long term data horizons to estimate probabilities of default.
  - Downturn '*Loss-given-Default*' (LGD) estimates, recommended in Basel II, to become mandatory.
  - Improved calibration of the risk functions, which convert loss estimates into regulatory capital requirements.
  - Banks must conduct '*stress tests*' that include widening credit spreads in recessionary scenarios.
- Promoting stronger provisioning practices (forward looking provisioning):
  - Advocating a change in the accounting standards towards an *Expected Loss* (EL) approach (EL Amount = LGD x PD x EAD) (BCBS, 2005). (where, PD refers to *Probability of Default* and EAD refers to *Exposure at Default*)

The Committee introduced a global minimum liquidity standard for internationally active banks that includes a 30 day liquidity coverage ratio requirement underpinned by a longer-term structural liquidity ratio called the *'Net Stable Funding Ratio'*.

The Committee also reviewed the need for additional capital, liquidity or other supervisory measures to reduce the externalities created by systemically important institutions.

As on September 2010, the Basel III norms proposed for ratios as 7 – 9.5% [4.5% + 2.5% (Conservation Buffer) + 0 – 2.5% (Seasonal Buffer)] for Common equity and 8.5-11% for Tier 1 capital and 10.5-13% for Total capital.

5. Risk Management Initiatives by Indian Commercial Banks

The commercial banks have been working on several initiatives to streamline and upgrade the existing the existing risk management system to bring them in tune with prevailing international best practices in risk management and also cover the entire spectrum of risks which banks are exposed to. Commercial banks in India are acting proactively in identifying, managing and controlling risk by building a sound risk management architecture keeping in mind guidelines issued by RBI and existing Basel II guidelines.

Several measures and initiatives taken by nationalized and private sector banks in India to identify and manage risks as per Basel II are detailed within the Table 1.

6. Basel III Implementation Progress in India

The Basel Committee on Banking Supervision (BCBS) issued a comprehensive reform package entitled 'Basel III: A global regulatory framework for more resilient banks and banking systems' in December 2010, with the objective to improve the banking sector's ability to absorb shocks arising from financial and economic stress.

Draft regulation on Basel III implementation approach for India was released on December, 2011. Subsequently, Reserve Bank of India (RBI) introduced Guidelines on Implementation of Basel III Capital Regulations in India on 2nd May, 2012 (Refer to Table 2 & 3).

As per the RBI directives, the implementation of the Basel-III compliant capital adequacy guidelines was originally mandated to initiate with effect January 1, 2013. Based on a subsequent review of capital base of major banks and specific requests received from the bankers, the implementation initiation date was later pushed to April 1, 2013 by the banking regulator. According to the directives, as at the close of business on April 1, 2013, banks must be able to declare capital ratios computed under the amended guidelines. However, the banks had been permitted as on December 31, 2012 to calculate the capital adequacy according to existing Basel II framework. Further, it was instructed that the banks should get the capital adequacy computation as on January 1, 2013 verified by their external auditors and keep the verification report on record.

The Basel III capital ratios will be fully implemented by Indian commercial banks on March 31, 2018. Further, the banks have to maintain Tier-I capital or core capital, of at least 7% of their risk weighted assets as on ongoing basis. Under the existing capital adequacy guidelines based on the Basel II framework, banks are required to maintain Tier I capital of at least 6% of their risk weighted assets. RBI stated within its circular that "the capital requirements for the implementation of Basel III guidelines may be lower during the initial periods and higher during the later years."

7. Basel III – An Impact Analysis

The banking norms prescribed as a part of the latest Basel III recommendations is expected to stress the capital requirement for PSU banks and impair their ability to enjoy excessive leverage which had enabled them to report healthy Return on Equity (RoE) estimates despite weak Return on Assets (RoA) profile:

- Asset quality risk and increase in downgrades of Indian corporate by rating agencies lending to higher capital consumption for some banks.
- Government commitment to recapitalize PSU banks in the near term will be impacted due to the tight fiscal situation.
- Public sector banks were increasingly resorting to IPDI, preference share capital to meet Tier 1 capital.

In a bid to conserve core capital to meet the revised requirements, it is believed that the Public sector banks will follow a more cautious approach to growth, thereby benefiting private banks. Reworking Tier 1 capital based on Basel III norms prescribed by RBI suggests that stress on Common Equity Capital (CEC) will be higher for public sector banks.

8. Conclusion

Basel II accord forces a transition from traditional regulatory measure to sophisticated risk management systems to ensure a resilient financial base. Reserve Bank of India requires Indian banks to adopt these international capital adequacy norms to enhance the soundness and stability of the financial system. In response to guidelines issued by RBI with regard to Basel II compliance, all Indian banks have adopted credit rating for their domestic and overseas exposures from RBI approved credit rating agencies. Moreover, almost all commercial banks in India have taken significant risk management initiatives in the form of various committees, processes and risk management departments to implement the Basel II norms in their organizational structure. The risk management process which is very crucial for banks and financial institutions should be completely independent, and should be imbibed in such manner that it will lead to enhanced volume and positive impact on profits.

Basel III guidelines aim to improve banking sector's ability to endure long periods of economic and financial stress by laying down more rigorous and stringent capital and liquidity requirements for them. These regulations have been framed to enhance the quality, consistency and transparency of the capital base and strengthening the risk coverage of the capital framework. It may be concluded that the commercial banks operating in India are gradually moving in the right direction under the vigilant eyes of the central regulator i.e. RBI for phased implementation of various provisions enunciated within the Basel III framework.

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Tables and Exhibits

Table 1: Risk management initiatives by commercial banks in India

Private sector banks

Bank	CRMC	MRMC	ORMC	RMC/RMS/ IRMD	Stress Testing	RBIA	ALCO, ALM Policy	RCSA	ICAAP	Others
HDFC Bank	*			*	*		*		*	Risk Monitoring Committee, CRM Framework
ICICI Bank	*		*	*	*		*		*	GRMG, ORM Framework, Disaster Recovery Management
ING Vysya Bank	*	*	*	*	*	*	*		*	Risk Management Review Committee
Kotak Mahindra Bank			*	*	*	*	*	*	*	CRM Policy
Yes Bank	*		*	*	*	*	*		*	Risk Management Committee
Axis Bank	*		*	*	*	*	*		*	

Source: Bank Websites and Annual Reports, 2011-12

Public sector and Nationalized banks

Bank	CRMC	MRMC	ORMC	RMC/RMS/ IRMD	Stress Testing	RBIA	ALCO, ALM Policy	RCSA	ICAAP	Others
Allahabad Bank	*		*	*		*	*		*	
Bank of Baroda	*		*	*	*	*	*		*	Setting Various Risk Limits
Bank of India	*	*	*	*	*	*	*		*	Credit Monitoring Department
Canara Bank	*	*	*	*	*	*	*		*	SCDRM, CORDEX Software for Loss Data
Central Bank of India	*		*	*	*		*		*	“CORDEX” Software for Loss data, CRM, ORM, ORM Policy
UCO Bank	*		*	*	*	*	*		*	CRM Policy
Indian Overseas Bank	*		*		*	*	*		*	
Punjab & Sind Bank	*		*	*			*			MRM Cell, Risk Monitoring Committee
Punjab National Bank	*		*	*	*	*	*		*	

Source: Bank Websites and Annual Reports, 2011-12

State Bank of India and its associate banks

Bank	CRMC	MRMC	ORMC	RMC/RMS/ IRMD	Stress Testing	RBIA	ALCO, ALM Policy	RCSA	ICAAP	Others
State Bank of India	*	*	*	*		*	*	*	*	CRM Policy, ORM Policy, MRM Department
State Bank of Travancore	*	*	*	*	*	*	*	*		CRM, MRM Policy, RBS
State Bank of Mysore	*	*	*	*	*		*	*	*	CRM Policy
State Bank of Hyderabad	*	*	*	*		*	*	*	*	
State Bank of Patiala	*	*	*	*			*		*	

Source: Bank Websites and Annual Reports, 2011-12

* Presence within the bank’s risk management framework

RMC: Risk Management Committee, CRMC: Credit Risk Management Committee, MRMC: Market Risk Management Committee, ORMC: Operational Risk Management Committee, ALCO: Asset Liability Committee, RCSA: Risk Control Self Assessment, RBIA: Risk Based Internal Audit, RBS: Risk Based Supervision, CRM: Credit Risk Management, ORM: Operational Risk Management, MRM: Market Risk Management, GRMG: Global Credit Risk Management Group, RMS: Risk Management Structure, ICAAP: Internal Capital Adequacy Assessment Programme, IRMD: Integrated Risk Management Department, ICMC: Investment Credit Risk Management Committee.

Table 2: RBI's recommendation based on draft Basel III implementation guidelines (Jan 2013 to March 2017)

Minimum capital ratios	Jan 2013	March 2014	March 2015	March 2016	March 2017
Minimum Common Equity Tier 1 (CET 1)	4.50	5.00	5.50	5.50	5.50
Capital Conservation Buffer (CCB)	-	0.63	1.25	1.88	2.50
Minimum CET 1 + CCB	4.50	5.63	6.75	7.38	8.00
Minimum Tier 1 Capital	6.00	6.50	7.00	7.00	7.00
Minimum Total Capital	9.00	9.00	9.00	9.00	9.00
Minimum Total Capital + CCB	9.00	9.63	10.25	10.88	11.50
Phase in of all deductions from CET1 (in %)	40.00	60.00	80.00	100.00	100.00

Source: RBI Basel III Implementation Guidelines

Table 3: Basel III global norms recommended by Basel Committee on Banking Supervision (Jan 2013 to Jan 2019)

Minimum capital ratios	Jan 2013	Jan 2014	Jan 2015	Jan 2016	Jan 2017	Jan 2018	Jan 2019
Minimum Common Equity Tier 1 (CET 1)	3.50	4.00	4.50	4.50	4.50	4.50	4.50
Capital Conservation Buffer (CCB)	-	-	-	0.63	1.25	1.88	2.50
Minimum CET 1 + CCB	3.50	4.00	4.50	5.13	5.75	6.38	7.00
Minimum Tier 1 Capital	4.50	5.50	6.00	6.00	6.00	6.00	6.00
Minimum Total Capital	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Minimum Total Capital + CCB	8.00	8.00	8.00	8.63	9.25	9.88	10.50
Phase in of all deductions from CET1 (in %)	-	20.00	40.00	60.00	80.00	100.00	100.00

Source: BCBS Report on Basel III Implementation