World Journal of Research and Review (WJRR)
ISSN:2455-3956, Volume-4, Issue-1, January 2017 Pages 40-45

Impact of Basel III on Indian Banks

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***Abstract*— The banking industry is the lifeline of any economy. It is one of the most important pillars of the financial sector. Development of any country is highly dependent on the performance of the banking industry. For an economy to remain healthy and going, it is important that the banking system grows fast and yet be stable.**

Due to the importance in the financial stability of the country, banks are highly regulated in most of the countries. The collapse of financial institution in one country can also lead to sequential collapse of financial institutions in other countries, warranting that global minimum prudential levels shall be implemented. More so, cross-country discrepancies in financial regulation have significant ramifications for the competitiveness of financial firms.

***Index Terms*— Banking industry, financial stability,Indian Banks.**

I. Introduction

Following high number of disruptions happening in the international financial markets like the Herstatt debacle of 26 June 1974 and the breakdown of Bretton Woods system, the G-10 countries formed a standing committee in 1975 under the auspices of the Bank for International Settlements (BIS), called as the Basel Committee on Banking Supervision (BCBS). The Committee's decisions have no legal force. The committee formulates supervisory standards and guidelines and recommends statement of best practice in the expectation that individual national authorities will implement them. To date, there have been three adaptations of the Basel regulations, referred to as Basel I, Basel II, and Basel III.

Even before Lehman Brothers collapsed in September 2008, the need for a fundamental strengthening of the Basel II framework had become apparent. The banking sector entered the financial crisis with too much leverage and inadequate liquidity buffers. These weaknesses were accompanied by poor governance and risk management, as well as inappropriate incentive structures. The dangerous combination of these factors was demonstrated by the mispricing of credit and liquidity risks, and excess credit growth.

One of the key shortcomings of the first two Basel Accords was that they approached the solvency of each institution independently. The financial crises 2007-08 highlighted the additional systemic risk and demonstrated the need for more efficient regulation of banking industry. To reinforce the stability of the financial system, policy makers and the Basel committee has introduced the latest Accord – Basel III, the reforms was fully endorsed by the Group of Governors and Heads of Supervision, the oversight body of BCBS, at its September 2010 meeting.

Basel III has set its objectives to improve the shock absorbing capacity of each and every individual bank as the first order of defense and in the worst case scenario, if it is inevitable that one or a few banks have to fail, Basel III has measures to ensure that the banking system as a whole does not crumble and its spill-over impact on the real economy is minimized. Therefore, Basel III has some micro-prudential elements so that risk is contained in each individual institution; and a macro-prudential overlay that will "lean against the wind" to take care of issues relating to the systemic risk.

According to the Basel Committee on Banking Supervision (BCBS) it is important that the banking industry is strong and easily able to recover from financial stress (BCBS, 2010). The reform of Basel II into Basel III intends to improve the banking industry accordingly. The BCBS has reformed the framework to try to amend the market failures that became evident in the financial crisis. The lessons learned from the crisis are coming to use.

Basel III builds on the three pillars from Basel II. Focus is on enhancing the quality and quantity of the capital and to have stronger risk coverage. The highlights of Basel III are as follows:

- Implements changes starting Jan 2013 and going through a transitional period that lasts until Jan 2019
- Raises the quality, consistency, and transparency of the capital base through stricter rules on eligibility of instruments to be included in (core) Tier 1 capital.
- Enhance risk coverage by strengthening counterparty credit risk capital requirements arising from derivatives, repurchase transactions, and security financing.
- Supplements risk-based capital requirements with the addition of a non-risk-based leverage ratio as a backup measure.
- Reduce procyclicality and promotes countercyclical capital buffers through a combination of forward looking provisioning and capital buffers.
- Addresses systemic risk and interconnectedness, with more specific proposals to be developed in 2010
- Introduces new global liquidity standards that include a stressed liquidity coverage ratio and a longer-term structural liquidity ratio.

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II. Basel III–Framework

The Basel III framework consisting of the three Pillars namely minimum capital requirement, supervisory review process and market discipline along with the liquidity measures and SIFI's are depicted as per the figure below:

Figure: The Basel III Framework

Capital			**Liquidity**
Pillar 1	**Pillar 2**	**Pillar 3**	
• Capital - Quality and level of capital (4.5%) - Capital loss absorption - Capital conservation buffer - Countercyclic buffer • Risk Coverage - Securitisation - Higher capital for trading book - Counterparty credit risk • Leverage - Leverage ratio	Supplemental requirements including capturing risk that is connected to off-balance sheet exposure and securitisation activities.	Revised disclosure requirements relating to off-balance sheet exposure and securitisation activities.	- Liquidity coverage ratio - Net stable funding ratio - Principles for sound liquidity risk management and supervision - Supervision monitoring

Systemically important financial institutions (SIFIs) These must have a higher loss absorbency ratio than other banks because of the greater risk they are to the financial system. A Tier 1 extra capital requirement ranging from 1-2.5 percent.

Figure – Summary of Basel III (BCBS, 2016)

III. Advent of Basel III in India

In the ambit of the Basel III Accord the Reserve Bank of India (RBI), the regulatory authority of the Indian banking industry, issued guideline on implementation of Basel III in May 2012, which are applicable to all commercial banks operating in India. The Basel III capital regulation has been implemented from April 1, 2013 in India in phases and it will be fully implemented as on March 31, 2019. Further, on a review in May 2013, the parallel run and prudential floor for implementation of Basel II vis-à-vis Basel I have been discontinued. Banks have to comply with the regulatory limits and minima as prescribed under Basel III capital regulations, on an ongoing basis. To ensure smooth transition to Basel III, appropriate transitional arrangements have been provided for meeting the minimum Basel III capital ratios, full regulatory adjustments to the components of capital etc. (RBI, 2015) The Basel III Capital Regulations guidelines issued by RBI are bifurcated into six parts: Part A: Minimum Capital Requirement (Pillar 1), Part B: Supervisory Review and Evaluation Process (Pillar 2), Part C: Market Discipline (Pillar 3), Part D: Capital Conservation Buffer Framework, Part E: Leverage Ratio Framework, Part F: Countercyclical Capital Buffer Framework.

Further, the guidelines on 'Liquidity Risk Management by Banks' were issued by RBI vide circular DBOD.BP.No.56/21.04.098/2012-13 dated November 7, 2012. Two minimum standards viz. Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) for funding liquidity were prescribed by the Basel Committee for achieving two separate but complementary objectives. In addition, a set of five monitoring tools to be used for monitoring the liquidity risk exposures of banks was also prescribed in the said document.

The comparative BCBS norms and RBI regulations are as per table below:

Table: Comparative BCBS Norms and RBI Regulations

	Basel II BCBS	Basel II RBI	Basel III BCBS	Basel III RBI
Minimum common equity Tier 1 (CET 1) (A)	2.00 %	3.60 %	4.50 %	5.50 %
Capital conservation buffer (CCB) (B)			2.50 %	2.50 %
Total equity/ capital ratio (C=A+B)	**2.00 %**	**3.60 %**	**7.00 %**	**8.00 %**
Additional Tier 1 capital (D)	2.00 %	2.40 %	1.50 %	1.50 %
Total Tier 1 capital (C+D)	**4.00 %**	**6.00 %**	**8.50 %**	**9.50 %**
Tier 2 capital	4.00 %	3.00 %	2.00 %	2.00 %
Minimum Total Capital + CCB	**8.00 %**	**9.00 %**	**10.50 %**	**11.50 %**
Leverage Ratio			**3.00 %**	**4.50 %**

Source: Developed by the author based on compilation of Basel norms and RBI norms.

As evident from the comparative ratio's stated above, it can be inferred that RBI has always been conservative in stipulating the Basel norms as compared to the norms suggested by the Basel Committee.

Objectives of Adoption of Basel III for Indian Banking Industry

The adoption of Basel III norms are intended to reduce the probability and severity of crisis in the banking industry and to enhance the financial stability of the country. India is the world's fastest growing major economy, coupled with this fact and the various initiatives like Make in India, the banking industry should be strong enough to provide a firm and durable foundation for economic growth. Moreover the compliance with the global standard regulations will enable the Indian banks to avoid any disadvantages in the global competition.

The features of Basel-III such as higher risk coverage, thrust on loss-absorbing capital in periods of stress, improving liquidity standards, creation of capital buffers in good times and prevention of excess buildup of debt during boom times would help create a resilient banking system.

(RBI, 2015) Basel III reforms strengthen the bank-level i.e. micro prudential regulation, with the intention to raise the resilience of individual banking institutions in periods of stress. Besides, the reforms have a macro prudential focus also, addressing system wide risks, which can build up across the banking sector, as well as the procyclical amplification of these risks over time.

Benefits and Challenges posed by Basel III for Indian PSBs

Public Sector Banks (PSBs) include the banks where the Government of India is holding a majority stake of more than 50% by way of the nationalization process. PSBs work for social, economic and at times political cause also. They are bestowed with the burden of controlling and guiding the economy at the most critical times of inflation and deflation and cannot shy away from their duties which private and foreign sector banks may deem to be unprofitable. PSBs control nearly 72 percent of the market amongst the commercial banks in India, thereby leaving comparatively much smaller shares for its private peers. Thus, it can be said that the PSBs command the lion's share and represent the banking industry in India.

Any new regulation is associated with various costs and benefits. Banks face the daunting task of meeting stakeholder, regulator and customer expectations while complying with stringent new regulatory requirements that are gradually taking place because of Basel III framework. The various benefits derived and the challenges faced by Indian banks through the implementation of Basel III are as enumerated below.

IV. Macro-economic Effect

(Mahapatra, 2012) The increase in equity capital requirement is likely to increase the weighted average cost of capital. Banks would partly pass on the increase cost of capital to the borrowers as higher lending rates. Thus, the equilibrium lending rates are likely to be marginally higher and as a consequence, credit growth could be a little lower than in the last few years.

(BIS, 2010) The Macroeconomic Assessment Group (MAG) established in February 2010 by Financial Stability Board and BCBS to coordinate an assessment of the macroeconomic implications of the Basel Committee's proposed reforms, estimates that bringing the global common equity capital ratio to a level that would meet the agreed minimum requirement and the capital conservation buffer would result in a maximum decline in GDP, relative to baseline forecasts, of 0.22%, which would occur after 35 quarters. In terms of growth rates, annual growth would be 0.03 percentage points (or 3 basis points) below its baseline level during this time. This is then followed by a recovery in GDP towards the baseline. Banks can also respond to the higher capital requirements by reducing costs or becoming more efficient. In fact a less stable financial system could have more deleterious consequences. The extent to which the great recession put global economic growth back is proof enough of this.

(BIS, 2010) Historical experience suggests that, in any given country, banking crises occur on average once every 20 to 25 years, i.e. the average annual probability of a crisis is of the order of 4 to 5%. The evidence indicates that banking crises are associated with large losses in output relative to trend and that these costs extend well beyond the year in which the crisis erupts. The cumulative (discounted) output losses range from a minimum of 20% to well in excess of 100% of pre-crisis output, depending primarily on how long-lasting the effects are estimated to be. It is inferred that each 1 percentage point reduction in the annual probability of a crisis yields an expected benefit per year equal to 0.6% of output when banking crises are allowed to have a permanent effect on real activity. When crises are seen to have only a temporary effect each 1 percentage point reduction in the annual probability of a crisis yields an expected benefit per year equal to 0.2% of output. Mapping tighter capital and liquidity requirements into reductions in the probability of crises is particularly difficult. Although there is considerable uncertainty about the exact magnitude of the effect, the evidence suggests that higher capital and liquidity requirements can significantly reduce the probability of banking crises. As one would expect, the incremental benefits decline at the margin. Thus, they are relatively larger when increasing bank capital ratios from lower levels and they decline as standards are progressively tightened.

More stringent capital regulation can result in a positive long-run effect on GDP growth, since the benefits of decline in the expected cost of avoiding banking crises outweigh the costs of complying with the stringent capital requirements, such as higher lending spreads and reduction in lending.

V. EFFECT ON CAPITAL REQUIREMENTS

The overall capital adequacy ratio proposed by RBI is at 11.50 % as against the 9.00% at present. Moreover, the additional leverage ratio has been introduced at 4.50 %.

(Subbarao, 2012) Subbarao D., RBI Governor, stated in his speech in Oct 2012 that the Reserve Bank's estimates project an additional capital requirement of Rs 5 trillion (i.e. Rs 5,00,000 Cr), of which non-equity capital will be of the order of Rs 3.25 trillion (i.e. Rs 3,25,000 Cr) while equity capital will be of the order of Rs 1.75 trillion (i.e. Rs 1,75,000 Cr). Majority of this requirement was to made good by the Govt of India as the PSBs are Govt Undertakings. In this endeavour, the Government of India has infused total Rs 82422 Cr in the PSB's since Oct 2012 till Nov 2016. The year wise break up is as follows:

Table: Year Wise Capital Infusion in PSBs Done by Govt Since Oct 2012

S No	Year	Amount (Rs in Crs)
i	2012-13	12517
ii	2013-14	15000
iii	2014-15	6990
iv	2015-16	25000
v	2016-17(till Nov 2016)	22915 *
	Total	82422

Source: Developed by the Author based on the GOI data, * 25 % to be released on fulfillment of certain performance criteria.

The Govt. of India launched the 'Indradhanush', a seven point plan to revamp the PSB's in Aug 2015. In the reforms note it was stated that the PSBs are adequately capitalized and meeting all the Basel III and RBI norms. However, the Government of India wants to adequately capitalize all the banks to keep a safe buffer over and above the minimum norms of Basel III. The Govt. of India estimated that extra capital required for the FY 2016 to FY 2019 is likely to be about Rs 1,80,000 Crore, excluding the internal profit generation which is going to be available to PSBs (based on the estimates of average profit of last three years i.e. FY 2013 to FY 2015). Out of the total requirement, the Government of India proposed to make available Rs.70,000 Crores out of budgetary allocations for four years, Rs 25,000 Cr in FY 2015-16, Rs 25,000 Cr in FY 2016-17, Rs 10,000 Cr in FY 2017-18 and Rs 10,000 Cr in FY 2018-19. The residual requirement of Rs 1,10,000 Cr is proposed to be raised from market.

Unfortunately the things didn't turn up as expected by the Govt. of India and the PSBs posted considerable losses for the FY 2015-16. (FitchRatings, 2016) Fitch Ratings, vide its press release dt 11.09.2016, stated that the progressive increase in minimum capital requirements under Basel III is likely to put nearly half of Indian banks in danger of breaching capital triggers. State banks are the most at risk, given their poor existing capital buffers and weak prospects for raising capital through market channels. (ICRA, 2016) In ICRA's estimate, Aug 2016, PSBs will need to raise Tier 1 capital of Rs 1.7-2.1 trillion (Rs 1,72,000 – Rs 2,10,000 Crore) during FY2017-FY2019 to meet the higher regulatory minimum capital requirements as well as to fund growth. Of this requirement, around 40% can be made through raising of AT1 instruments; however, given the elevated risk for existing instruments and the weak investor appetite, it is unlikely that PSBs will be able to raise the required AT1 capital. Hence, their dependence on equity raising to meet minimum Tier 1 capital requirements remains very high.

The present position of PSBs has discouraged the investors from investing in their shares or debt. More capital will be needed from the Govt., over and above the proposed under

Indradhanush reform, to restore market confidence. Though, considering the fiscal concerns, it is difficult for Govt of India to keep on infusing capital in the banks. The Union Budget 2017-18 has kept the budgetary allocation for capital infusion in PSBs unaltered at Rs 10000 Cr.

The capital crunch may lead to contraction of credit by the PSBs in general or to a specific sector carrying high risk weight like real estate, personal loans, corporate having external rating in on investment grade i.e. below BBB etc.

VI.EFFECT OF PROFITABILITY

The increase in capital requirements will have a negative effect on ROE. Due to this it is believed that Basel III will adversely effect the shareholders of banks. However, some authors believe that a decrease in ROE due to increase in capital does not lead to reduction in the value as the shareholders expect lower return by way of improved downside protection.

Basel III also introduces a Leverage ratio of 3 % as the ratio of Tier 1 Capital to total exposure, the new leverage ratio may limit banks' scope of action. The leverage ratio restricts the extent to which banks can grow their business on the basis of external debt. It stipulates that the total exposure of a bank (i.e. all assets and off-balance assets) should not be more than 33 times the Tier 1 capital. Higher Leverage Ratio leads to decrease in profitability of the bank as it can do less profitable lending. However, it results in increase in financial stability.

Basel III introduced the new liquidity requirements in form of LCR and NSFR. The banks need to hold significantly more liquid low-yielding assets to comply with the LCR, which will have adverse impact on the profitability. Though, in case of PSBs the existing SLR requirements runs parallel to the LCR, which poses additional burden on banks. Considering this, RBI has reduced the SLR to 20.75 % as on Oct 2016 from 23.00 % as on April 2013, i.e. since the implementation of Basel III. A portion i.e. 7% of LCR is also available for LCR. The NSFR will necessitate the banks to change their funding preference towards long-term funding, which will also lead to higher funding cost.

VII. EFFECT ON OPERATIONAL ISSUES

The PSBs need urgently to improve their systems of risk management and supervision to achieve Basel III norms. This may also necessitate the skill development of the officials at all levels to ensure capital conservation. The PSBs along with Govt and RBI need to undertake reforms related to governance-related problems in their organizations. The PSBs are consistently losing their market share to their private sector peers due to being less efficient in delivering services, low cost efficiencies and comparatively higher delinquencies. The improved efficiencies and competitiveness of PSBs will also enhance their valuations, which will enable them to raise equity capital from markets.

Basel III provides for improved risk management systems in banks. It is important that Indian banks have the cushion afforded by these risk management systems to withstand shocks from external systems, especially as they deepen their links with the global financial system going forward. In process of complying with the Basel III guidelines, banks will be encouraged to take more calculated and strategic approach towards business decision making, asset choices and growth while allocating capital charge towards opportunities that suite the bank's actual risk and return profile, which will lead to better asset quality.

In order to meet the Basel III compliance banks have to ensure that the risk and finance teams have quick access to centralised, clean and consistent data as the data management requirement of Basel III are significant for calculating capital adequacy, leverage and liquidity effectively and accurately. It is imperative for the efficient collection, consolidation and submission of requisite reports. Better data management will also enable the banks to manage the customers in a better way and will strengthen the AML framework.

VIII. CLOSING REMARKS

Basel III will happen, roughly on schedule, and will make a major difference to the operation of the financial system. Banking will be safer, but more expensive, with extensive ramifications throughout the economy. Despite the dry nature of discussions of financial regulation, the Basel III process bears watching closely. For now, whether the future macroeconomic benefits of the Basel III for society as a whole are likely to outweigh the microeconomic costs for individual institutions is a matter of speculation

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