Basel III: Capital efficiency and challenges for 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. Enhancing the banking sector’s safety and stability has been the thrust of the post financial crisis policy reforms and strengthening capital regulation of banks is important among them. The main objectives of this improved capital regulation framework are to strengthen global capital and liquidity regulations with the goal of promoting a more resilient banking sector and to improve the banking sectors ability to absorb shocks arising from financial and economic stress. 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.

Keywords: Banking industry, financial stability, Indian bank, basel-III, global, economy

Introduction
The Basel III guidelines on strengthening the global capital framework and new regulatory requirements on liquidity and leverage were proposed in December 2010. This new accord is a set of new banking rules developed by Basel Committee on Banking Supervision to make the banks stronger and efficient enough to overcome any crisis by introducing extra capital and reserves. It is aimed to enhance the individual banking institutions ability to deal with financial and economic stress, risk management and strengthen the transparency and disclosures with the objective of promoting a more resilient banking sector. According to BCBS the Basel III proposals covers primarily the following 5 aspects i) increase in the quality, quantity, consistency and transparency of capital base to improve the loss absorption capacity of banks ii) increase the risk coverage of capital framework by increasing the requirements for the management and capitalization of counterparty credit risk iii) introduce a non-risk based leverage ratio to prevent an excessive build-up of leverage on institutions balance sheet iv) strengthen the liquidity framework by developing two minimum standards that includes Liquidity Coverage Ratio which will help to survive a stress scenario lasting for 30 days. v) Build-up of capital conservation buffer and countercyclical capital buffer to promote capital conservation that can be run down during periods of stress. The new guidelines will surely address the systemic loopholes in Basel II but it will be a challenge for Indian banks. As per Basel III banks need to maintain higher capital base at a time when credit demand is going to expand which would increase the pressure on Indian Banks. The increased capital requirements under Basel III will affect the Return on Equity of the banks and the shareholder’s expectations. Fitch an international credit rating agency projects the additional capital required to be around USD 50 billion and ICRA estimates a figure of around USD 80 billion. The need of capital will be less for large private sector banks due to higher capital ratios and stronger profitability. Some public sector banks can fall shortage of revised capital adequacy requirement and would depend on government to increase their capital. Apart from government support numbers of banks have to raise capital from the market. In case of implementation of countercyclical capital buffer the biggest challenge to the RBI is identifying the inflexion point in an economic cycle which should trigger the release of the buffers as it requires long series data on economic cycles.
The banks have to adopt the advanced approaches to risk management as it will help them to manage their capital more efficiently and improve their profitability.

**Review of literature**

Naceur *et al.* (2018) analyzed the impact of capital and liquidity on bank-lending-growth following the 2008 financial crisis, and the new measures inspired by the Basel III regulatory framework. Capital ratios have significant, negative impacts on bank-retail-and-other-lending-growth for large European banks in the context of deleveraging and the “credit crunch” in Europe over the post-2008 financial crisis period. Additionally, liquidity indica-tors have positive but perverse effects on bank-lending-growth, which supports the need to consider heterogeneous banks’ characteristics and behaviors when implementing new regulatory policies.

Rubio & Carrasco-Gallego (2016) studied the interaction between Basel I, II and III regulations with monetary policy. In order to do that, we use a dynamic stochastic general equilibrium (DSGE) model with a housing market, banks, borrowers, and savers. Results show that monetary policy needs to be more aggressive when the capital requirement ratio (CRR) increases because it is less effective in this case. However, this policy combination brings a more stable economic and financial system.

Manlagnit (2015) examined the impact of Basel II on the cost efficiency of Philippine commercial banks from 2001 to 2011. Findings showed that higher capital requirement tends to improve the cost efficiency but more powerful supervisors can adversely affect the efficiency of the banks. The other potential correlates that may help explain the efficiency of the banks are risk and asset quality and bank-specific variables.

Beltratti & Paladino (2016) European banks not located in peripheral countries, a higher degree of RWA-saving is associated with more equity rising during the European crisis, more volatility, and lower distance-to-default. European banks located in peripheral countries engaged less strongly in RWA-saving than European banks located in core countries, and its impact on the various performance measures is almost nonexistent, except for a decrease in the distance-to-default.

Dermine (2015) shown in a stylized Basel III framework that capital regulation should incorporate a liquidity risk component. Credit risk diversification and/or a reduced probability of loan default which lead to a reduction of Basel III regulatory capital will increase the probability of a bank run. The leverage ratio rule puts a floor on the Basel III risk-weighted capital ratio, allowing the limitation of such a risk.

Ly *et al.* (2016) investigated the effect of Net Stable Funding Ratio (NSFR) adjustment speeds on systemic risk. We find that banks with the immediate trading equilibrium tend to adjust the NSFR quickly in response to the Basel III liquidity requirement, thereby, reducing systemic risk. With the same level of the NSFR, findings also suggest that only the adjustment speed exerts a negative impact on systemic risk.

Zins & Weill questioned (2017) whether the implementation of Basel II standards influences the gap in risk between Islamic and conventional banks. Find that Basel II standards enlarge the gap in risk between Islamic and conventional banks at the expense of Islamic banks. These findings are also observed when separately considering small banks and large banks. They thus supported the view that the relationship between Islamic banking and risk is conditional to the regulatory framework.

Roulet (2018) examined that in European commercial banking sectors capital ratios have significant negative impact and liquidity ratios are playing positive not significant impact on banking lending growth following the 2008 financial crisis.

Ahmed (2016) discussed about the aspects of Basel III application in and its challenges for Bangladesh and the strategies to developing the risk architecture in line with Basel III framework. His paper suggested that whether it is Basel II or Basel III, it is vital that a bank does not be subject to entirely on “regulatory capital”. What is obligatory here is an active hazard alleviation methodology, where all workers drive about as hazard supervisors in their very own area. The examine additional recommends that it is essential that banks in Bangladesh have the pad managed by these hazard the executives frameworks to endure shocks from external frameworks, mainly as they progress their influences with the universal money related structure going ahead.

Sultana & Sharmin (2015) their paper has been endeavors to dissect contrasts in the middle of the system of Basel II and Basel III and plans to concentrate on the difficulties that Bangladesh will look for executing Basel Accord III. At last, this paper has given a few recommendations on tending to the difficulties of actualizing the Basel III system particularly in regions, for example, expansion of capital assets, development versus monetary dependability, challenges for improved productivity, store estimating, cost of credit, support of liquidity principles and fortifying of hazard engineering.

Hans (2015) their paper inspects the new components of Basel III accord and its usage stages with extraordinary reference to India. By concentrating on strict capital direction Basel III has presented higher capital proportions, new cradles and use proportion structure which upgrades hazard the executives practices and make managing an account division powerful and stun retentive.

Tripathi & Singh (2015) study on the examination is directed on four banks to be specific; State Bank of India, Bank of Baroda, Central Bank of India and Indian Bank. The information gathered for NPA, CRAR, administrative capital and capital proportion from site of RBI and banks and further broke down to check whether banks have adequate capital amleness or not. The period range is 2008-2014 for NPA and CRAR and 2013-2014 for administrative capital and capital proportions. At long last it is presumed that open part banks have sufficiently made pad against their hazard weighted resources. Masera (2013) has found that in United State of America the capital regulatory system has been followed by the size of the bank, in European Union banking system risk weighted scheme is so much complex.

Mirchandani, & Rathore (2013) examined that in Indian PSU banks for BASEL III execution (by an extrapolation of the examination of over five major PSU banks) at that point it very well may be stated that the PSU banks appear to have acceptable funding to see prompt capital sufficiency necessity, dealing with the evaluated credit expansion of about 16% in the Indian managing an account. Be that as it may, finish implementation of BASEL III in next 6 years will be a moreover difficult project where the prominence
won't be on Capital at the similar time, on Tier I capital that too additional on Common value.

Objectives of Basel-III
According to the BCBS, the Basel III proposals have two main objectives:

- To strengthen global capital and liquidity regulations with the goal of promoting a more resilient banking sector.
- To improve the banking sector’s ability to absorb shocks arising from financial and economic stress.

Enhancements of Basel III over Basel II
The enhancements of Basel III over Basel II come primarily in four areas: (i) augmentation in the level and quality of capital; (ii) introduction of liquidity standards; (iii) modifications in provisioning norms; and (iv) introduction of leverage ratio. These are elaborated as follows.

Increased quantity and quality of capital
Basel III contains various measures aimed at improving the quantity and quality of capital, with the ultimate aim of improving the loss-absorption capacity in both going concerns and liquidation scenarios. The capital conversion buffer ensures that banks are able to absorb losses without breaching the minimum capital requirement and are able to carry on business even in a downturn without deleveraging. This is not part of the regulatory minimum. So, while the 8% minimum capital requirement remains unchanged under Basel III, there is an added 2.5% as capital cushion buffer. The implications of having a buffer are low dividend payout and low bonus to employees. So, if the banks go for this buffer, the fundamental question before them is how they are going to reward their shareholders and incentivise their employees as the profits are likely to decrease. Banks are already constrained in payment of dividends because there is a statutory minimum ratio where the profits have to be transferred. In such a case, how will banks attract more capital? There is a trade-off for banks between being prudent and increasing profit.

Increased short term liquidity coverage
The Basel Committee has further strengthened the liquidity framework by developing two minimum standards for quantifying funding liquidity; Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSRF). The LCR standard aims at a bank having an adequate stock of unencumbered high quality liquid assets (HQLA) which consist of cash or assets that can be converted into cash at little or no loss of value in private markets to meet its liquidity requirements in a 30 calendar day liquidity stress scenario. The NSRF is designed to encourage and incentivise banks to use stable sources to fund their activities. It helps to reduce dependence on short term wholesale funding during times of buoyant market liquidity and encourages better assessment of liquidity risk across all on- and off-balance sheet items. Net Stable Funding Ratio requires a minimum amount of stable sources of funding at a bank relative to the liquidity profiles of the assets, as well as the potential for contingent liquidity needs arising from off-balance sheet commitments, over a one-year horizon. The implications here would pertain to the type of current short term markets available for banks to provide liquidity, the type of long term markets available for banks to provide liquidity, and the impact on the profitability needed, the cost of deposit, and the impact on the profitability of banks.

Strengthening of provisioning norms
Another issue raised by the Basel III reforms is of provisioning norms; currently there is a standardised approach to provisioning in the banking system. It is a typical accounting approach, wherein if a loss is incurred, banks have to make a provision to cover it. But Basel III is talking about a move from “incurred loss approach” to “expected loss approach”. For an expected loss approach what should be the measure? Spain introduced Dynamic Provisioning which involves computing some portion of the fixed element, and some portion of the dynamic moving element. The Turner Report also emphasised the need for Dynamic Provisioning. The information required is credit cost data, credit migration, and probability of default. The question is, what method should be used? The RBI has already released an approach paper on this and is working on the introduction of a suitable framework.

Enhanced disclosures
The second pillar of Basel II is market discipline, which involves more of disclosures. Disclosures made by banks are essential for market participants to make more informed decisions. Basel III further strengthens the disclosures, where banks are required to disclose on composition of the regulatory capital and any adjustments to the regulatory capital.

Benefits and Challenges 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.

Basil III or The Basel Accord is a global regulatory standard on bank capital adequacy, stress testing and market liquidity risk. It was agreed upon by the members of the Basel Committee on Banking Supervision in 2010-11 and was scheduled to be introduced from 2013 until 2015 however changes from April 2013 extended implementation until March 31, 2018. According to Basel Committee on Banking Supervision “Basel III is a set of comprehensive set of reform measures developed by Basel Committee on Banking Supervision to strengthen the regulation,
supervision and risk management of the Banking Sector. Basel III is a continuation of effort initiated by the Basel Committee on Banking Supervision to enhance the banking regulatory framework under Basel I and Basel II. The latest accord seeks to improve the banking sector’s ability to deal with financial and economic stress, improve risk management and strengthen bank’s transparency. Thus, Basel III guidelines are aimed to improve the ability of banks to withstand period of economic and financial stress as the new guidelines are more stringent than the earlier requirements for capital and liquidity in the banking sector.

**Major Features of Basel III**

- Better Capital Quality: One of the key elements of Basel III is the introduction of much stricter definition of capital. Better quality capital means higher-loss absorbing capacity.
- Capital Conservation Buffer: Banks will be required to hold to hold a capital conservation buffer. The aim to build this buffer is to ensure that banks maintain a cushion of capital that can be used to absorb losses during periods of financial and economic stress.
- Countercyclical Buffer: It has been introduced with the objective to increase capital requirements in good times and decrease the same in bad times. The buffer will range from 0% to 2.5%.
- Minimum Common Equity and Tier 1 Capital Requirements: The minimum requirement for common equity has been raised under Basel III from 2% to 4.5% of total risk weighted assets. The overall Tier I capital requirement will also increase from 4% to 6%.
- Leverage Ratio: This aims to put a cap on swelling of leverage in the banking sector on a global basis.
- Liquidity Ratios: A new Liquidity Coverage Ratio and Net Stable Funding Ratio are to be introduced in 2015 and 2018 respectively.
- Systemically Important Financial Institutions: Systemically important banks will be expected to have loss absorbing capability beyond the Basel III requirements.

**Basel III challenges for Indian Banks**

Basel III norms which will come into effect this April are likely to increase pressure on Indian banks to raise capital and can lead to some changes in banking industry. Some of the key challenges are as follows:

- Additional Capital: As banks go on increasing the risk weighted asset portfolio to meet the growing economy credit requirements they would need additional capital funds under Basel III. The international credit ratings agency, Fitch estimates this figure to be around USD 50 billion while ICRA projects a figure of around USD 80 billion.
- Growth Barrier: Growth and financial stability seem to be two conflicting goals for an economy. Indian economy will see higher growth in the manufacturing sector which enhances demand for credit. Banks need to maintain higher capital requirements as per Basel III when credit demand is going to expand rapidly. This will raise the cost of credit and hence militate against growth.
- Profitability of Banks: As the upper limit for leverage ratio by Basel III has been set at 3% the value of the leverage multiplier will come down resulting in reduction in the Return on Equity. The enhanced capital requirements under Basel III regime are likely to affect the ROE of the banks and the shareholder expectations on the minimum required rate of return.
- Implementing the Countercyclical Capital Buffer: Banks need to build a higher level of capital in good times that can be run down in times of economic contraction. The challenge to the RBI is identifying the inflexion point in an economic cycle which should trigger the release of buffers.
- Risk Management: Banks need to migrate to the advanced approaches especially as they expand their overseas presence. The adoption of advanced approaches to risk management will enable banks to manage their capital more efficiently and improve their profitability.
- Systemic Risk: Basel III seeks to mitigate systemic risk by identifying both Domestic Systemically Important Banks and Global Systemically Important Banks and mandating them to maintain a higher level of capital depending on their level of systemic importance.

**Conclusion**

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 banks actual risk and return profile, which will lead to better asset quality.

**References**


