Opportunity and Challenges for Implementation of Basel Accord III and IV for Scheduled Commercial Banks in India

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Abstract: *The study mainly deals with the capital structure of Indian Scheduled Commercial Banks and the level of their compliance with the Capital requirement as prescribed by the Basel III accord and analyse their readiness for the upcoming Basel IV implementation. It has been observed that the Indian Commercial Banks had accumulated large Non-Performing Assets in the first decade of this century, which had turned even severe post the global financial crisis of 2008. This had resulted in a falling Capital to Asset Ratio and left Indian Commercial Banks away from Basel 3 Compliance. The Reserve Bank of India sought to improve the situation and prescribed even higher CRAR requirement of 9% for the Indian State-owned Banks, as compared to 8% propounded by the Basel III. The situation kept on improving after RBI took some strict action against banks like introducing Prompt Corrective Action framework to watchlist and restrict the lending and branch expansion operation of selected banks. The Central Govt. has also rolled out Recapitalization plan for certain sick public banks that helped them restore the CRAR ratio as per the RBI mandated standards. The latest measures of the Govt. to restructure the Public Banking sectors in terms of mergers and acquisition of loss-making banks with the big players helped improve the balance sheets of the banking companies and regained their capital adequacy as per the requirement. The last few years, almost all Public Banks have maintained sound CRAR ratio and significantly reduced the NPA burdens that indicates their readiness towards Basel IV standards.*

Key Words: *Basel, Capital Adequacy, Liquidity, Leverage, NPA, Gross Advance, Net Profit, Resilience*

1. INTRODUCTION

The advent of Basel Standards dates back to 1988 with the rollout of Basel I Accords by the Basel Committee on Banking Supervision (BCBS) which gave due focus on the Capital requirement by the Banks and Financial Institutions to counter the challenges of Credit Risk. Later, Market Risk was added to the purview of the Basel I Accord. Subsequently with the changing needs, a modified Basel II Accord was launched in 2004 to take into account the Operational Risk. The Global Financial Crisis of 2008 pointed out some severe loopholes in the banking system in the form of lack of stringent control on Capital Buffer, Inappropriate risk weightage and failure of Credit Rating Agencies. These prompted the BCBS to introduce a rectified standards Basel III in 2010 with a roadmap of phased implementation by the member countries starting from 2013. It emphasized on the Proper Provisioning through Capital Buffer and strict liquidity criteria to prevent banks from any contingencies.
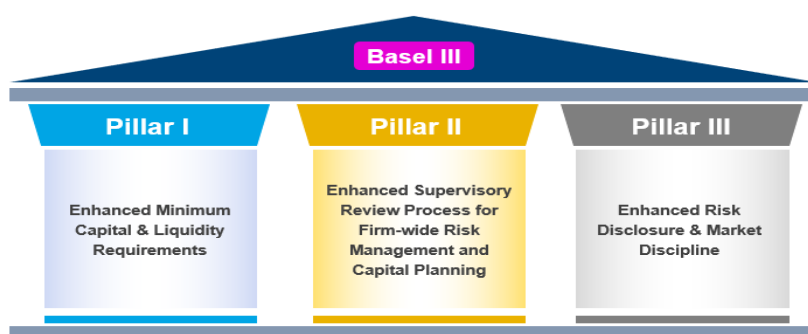

Fig 1. Three Pillars of Basel 3 Standards

Reserve Bank of India also notified guidelines for the Indian Banks to implement the Basel III standards starting form 1st April 2013. RBI directed banks to increase the Common Equity Tier 1 Capital from 3.5% to 4.5% and Minimum Tier 1 Capital from 4.5% to 6% out of total Capital Requirement of 8% by 1st January 2015. However, the Capital Adequacy Ratio was later raised by RBI to 9% to be attained in a phased manner by the Scheduled Commercial Banks in India. The Regional Rural Banks and Urban Cooperative Banks were also gradually brought under the ambit of this Capital Requirement. Apart from the CAR, a Capital Conservation Buffer of 2.5% of Risk Weighted Assets in the form of Common Equity Tier 1 Capital also needs to be maintained by the banks. Then a Countercyclical Capital Buffer of 0-2.5% of RWAs is also prescribed by BCBS as per the national preferences.

Basel IV is the proposed set of guidelines as an addition to the earlier guidelines with a more stringent conditions to ensure a sound and resilient banking system. It is still under discussion and is set to be implemented from January 1, 2023. Sometimes it is referred as Basel 3.1 as it is brough as some improvements and modifications over the existing Basel III standards.

2. REVIEW OF LITERATURE

Went (2010) examined the prospective impact of Basel III on Banking. He stated that the banks need higher capital and liquid standards to counter sudden shock on the banks. However, such a liquid asset needs to be maintained by either holding cash or investing in low-yielding assets. This undermines the bank's profitability and forces banks to charge more on their advances. To raise capital, Banks take leverage from markets or other financial institutions, the cost of which is also taken into account in the banks' credit exposure to maintain stable earning along with resilience.

Blundell-Wignall and Atkinson (2010) in an attempt to explain the impact of Basel III on Capital Requirement, stated that it is the higher degree of leverage that has the most detrimental effect on the Banks' health. In the place of Capital requirement, more focus should be given on a proper leverage ratio and refrain banks from taking up leverage above a sustainable level. Apart from the leverage ratio, diversification in source of funding with a proper mix of debt and equity need to be followed. This could remove the pro-cyclicity caused by minimum capital requirement and only what exists in the natural pro-cyclicity.

Hellwig (2010) viewed that the excessive leverage taken by the banks were the main reason of the Global Financial Crisis of 2007. This prompted the authorities to strengthen the capital requirement under the Basel III, although the governance structure of the banking bodies was not much taken into picture. He suggested that the reforms should be put in place in the banking system that the regulatory capital should be sufficient to the risk taken by the banks and the capital adequacy should be much higher than the present level, may be 20% or 30%.

Shah (2013) viewed that the rollout of Basel III standards might diminish the banks' profitability and the very intent of doing the banking business. The prominent reason behind this can be attributed to the cutting down some constituents of Tier 1 Capital, raising the risk weights and increased cos of fund during the process of transition to the new standards.

3. RESEARCH GAP
After reviewing the research journals, the following research gaps have been identified.
- The impact of Capital requirement on the Gross Advance, NPA and profitability needs to be assessed.
- The liquidity standards of the Indian Banks need to be assessed to understand the solvency of the banks.
- The leverage taken by the banks should be examined to check out the resilience in the banking system.

4. OBJECTIVES OF THE STUDY

1. To analyse the Capital Adequacy of the Banks in India whether it is sufficient as per the Basel III standards and understand the extent to which Banks are ready for Basel IV.
2. To examine the leverage and liquidity of the banks to withstand the external shock and contingencies.
3. To comprehend the impact of Capital, Liquidity and Leverage on Gross Advance, Profit and NPAs.

5. RESEARCH METHODOLOGY

The study is based on the secondary data compiled from RBI's website, Bulletins and Journals. The data on Liquidity, Profits, Advances and Capital of 26 Public Sector Banks and 20 Private Sector Banks from 2006 to 2014 has been collected for the purpose of the Study.

Three sets of Multiple Linear Regression have been formulated to examine the influence of the parameters mentioned under Basel III (explanatory variables) on the Banks' Advances, NPAs and Net Profits (dependent variables) to check out the level of implementation of Basel III standards and readiness for the Basel IV in the context of Indian Banks.

The Multiple Regression Equation used for the study are as follows:

1. Gross Advance = a1 + p1*CAR + q1*LR + r1*LCR + s1*NSFR + e1
2. Net NPA = a2 + p2*CAR + q2*LR + r2*LCR + s2*NSFR + e2
3. Net Profit = a3 + p3*CAR + q3*LR + r3*LCR + s3*NSFR + e3

Where, a1, a2, a3 are intercepts and p, q, r, s, are slope coefficients of the respective equations. e is error term.
And CAR = Capital Adequacy Ratio, LR = Leverage Ratio, LCR = Liquidity Coverage Ratio, NSFR = Net Stable Funding Ratio

6. DATA ANALYSIS
6.1 Impact analysis on Gross Advance

Particulars	Co-efficient (b)	Standard Error SE (b)	Standardised Coefficient (β)	P- Value
Common intercept	-27634732	7682907		0.225
CAR	-49739028	37975156	-.322	0.260
LR	412571337	112351123	.896	0.021
LCR	13694	62903	.047	0.838
NSFR	3501183	1728762	.402	0.113

Table 1. Regression Coefficients for the Gross Advance

The Regression Analysis has given the R-squared Value of 0.84, which means that the independent variables together explain the 84% of the variation in dependent variable, i.e Gross Advance. The negative slope coefficient for the CAR indicates a negative relation between the Gross Advance and CAR. It is understood that the higher degree of advances is extended by the banks at the expenses of the required Capital. All other three coefficients are positive, indicating a direct relationship between Gross Advance with LR, LCR, NSFR. Among others, LR is found to be significantly influencing the Gross Advance, given the p-value of 0.02, which is significant at 5% level. It means higher the leverage, higher is the advances made by banks out of it.

6.2 Impact analysis on Net NPA

Particulars	Co-efficient (b)	Standard Error SE (b)	Standardised Coefficient (β)	P- Value
Common intercept	-1000049.783	278118.091		.023
CAR	-4030973.258	1374685.065	-.630	.043
LR	18259932.441	4067064.508	.958	.011
LCR	-1088.375	2277.068	-.089	.658
NSFR	141999.970	62580.491	.393	.086

Table 2. Regression Coefficients for the Net NPA

The coefficient values of CAR and LCR have come out negative, pointing out an inverse relation between CAR and LCR with Net NPA. The positive coefficients indicate a direct relation between LR and NSFR with Net NPA. CAR and LR are significantly influencing the Net NPA given their corresponding p-values to be 0.043 and 0.01, which are significant at 5% level. So, higher the Capital adequacy, lower the NPA and higher the leverage banks have taken, higher is the NPA for the banks.

6.3 Impact analysis on Net Profit

Particulars	Co-efficient (b)	Standard Error SE (b)	Standardised Coefficient (β)	P- Value
Common intercept	-349846.529	98579.619		.024
CAR	-156281.508	487260.393	-.081	.764
LR	4507202.156	1441580.695	.788	.035
LCR	741.341	807.112	.203	.410
NSFR	41785.060	22181.804	.386	.133

Table 3. Regression Coefficients for the Net Profit

The coefficient of CAR has come out to be negative from the third Regression, indicating that there is an inverse relation between CAR and Net Profit. However, the relation is not significant given the p-value of 0.76. All other three parameters are positively influencing the Net Profit as the coefficients are positive. LR has a significant impact on the Net Profit as the corresponding p-value of 0.03 is less than 0.05, which is significant at 5% level. So, higher the leverage, higher the advances banks made to generate higher profit.

7. CONCLUSION:
CHALLENGES & OPPORTUNITIES

From the study it is evident that the Capital Adequacy and Leverage Ratio of the Banks are key determinant of the Banks' performances. Banks with their inherent profit motive, tend to extend more advances to the borrowers and for that purpose, they resort to leverage. As found from the study, higher level of advances is financed by higher degree of leverage. However, excessive and irrational lending often cause a greater piling up of NPAs which increases the Risk Weighted Assets of the banks and consequently raises the Capital adequacy. Higher level of Capital requirement bolsters the resilience of the Banks to counter loss arising out of the Non-Performing Advances. Banks motive of extending loans and investing in assets is in contrast with holding sufficient liquid assets in their hand. However, Liquidity is an important factor for the banks that pitches for the availability of High-Quality Liquid Assets to meet the immediate payment obligation. From the study we have observed that the higher availability of Liquid assets undermines the banks' ability to extend advances and generate profits. Most of the Indian Banks have already managed to raise the Capital Adequacy level above the Basel III standards of 8% following the RBI mandates of even 100 bps higher CAR requirement. The banks also have sufficient liquidity and net stable funding to prevent bank-runs. Such a scenario testifies the success of the Banking system in India in overcoming the challenges of implementation of Basel III and substantiates their preparedness for theupcoming Basel IV standards.

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