BASEL BANKING NORMS: THEIR EFFICACY, ANALYSIS IN THE GLOBAL CONTEXT & FUTURE DIRECTION

Authors: Mohane, Yatin and Shenoy, Akshay

Abstract

This article aims to first build a deeper understanding of the emergence of Basel banking norms (Basel I), and the transition to each of the subsequent regulations (Basel II and Basel III). The primary purpose of developing this understanding is to further analyze the extent of effectiveness of the Basel norms. To explore how such regulations impact an economy, we have specifically looked at four economies of the world, which are geographically apart, in this context. The idea here is to study how, for instance, banking institutions have shaped up to these norms – and whether the effects were favorable or adverse. We then conclude by conceptually looking at the future direction of regulations such as the Basel norms in the banking industry.

Introduction

The Basel Banking Accords are norms issued by the Basel Committee on Banking Supervision (BCBS), formed under the auspices of the Bank of International Settlements (BIS), located in Basel, Switzerland. The committee formulates guidelines and makes recommendations on best practices in the banking industry. The Basel Accords, which govern capital adequacy norms of the banking sector, aim to ensure financial stability and thereby increase risk absorbing capability of the banks.

The first set of Basel Accords, known as Basel I, was issued in 1988, with primary focus on credit risk. It laid the foundation of risk weighting of assets and set objective targets of capital to be maintained. Basel II was issued in 2004 with the objective of being more comprehensive. It aimed at increasing capital adequacy by imposing a buffer for a larger spectrum of risk. As time has gone by, we have witnessed the Basel norms failing to restrict two major crisis during its tenure, the South Asian Crisis in 1998 and Sub-prime Mortgage Crisis in 2007, which raises questions about its effectiveness. As the banking world prepares to comply with Basel III, the effectiveness of the Basel accord has come under the radar.

Basel I: Capital adequacy against credit risk

Basel I Accord attempts to create a cushion against credit risk. It comprises of four pillars, namely

i. <u>Constituents of Capital</u>: It prescribes the nature of capital that is eligible to be treated as reserves.

ii. Risk Weighting: Risk Weighting created a comprehensive system to provide weights to different categories of bank's assets (on balance sheet as well as off balance sheet assets) on the basis of relative riskiness.

iii. Target Standard Ratio: This acted as a unifying factor between the first two pillars. A universal standard of 8% coverage of risk weighted assets by Tier I and II capital was set, with at least 4% being covered by Tier I capital alone.

iv. Transitional & implementing arrangements: Phase wise implementation deadlines were set wherein a target of 7.25% was to be achieved by the end of 1990 and 8% by the end of 1992.

Basel II: Comprehensive framework with buffer for larger spectrum of risks

Basel II retained the 'pillar' framework of Basel I, yet crucially expanded the scope and specifics of Basel I. The 4 pillars were amended as follows

i. Minimum Capital Requirements, risks & target adequacy ratio: The primary mandate of widening the scope of regulation was achieved by expanding the definition of banking institutions to include them on a fully consolidated basis. Reserves requirement were defined as follows:

$$\boxed{\text{Reserves} = 8\% * \text{Risk-Weighted Assets} + \text{Operational Risk Reserves} + \text{Market Risk Reserves}}$$

ii. Regulator-Bank Interaction: This empowers regulators in supervision and dissolution of banks, giving them liberty to set buffer capital requirement above the minimum capital requirement as per pillar I.

iii. Banking Sector Discipline: It aims to induce discipline by mandating adequate disclosures about capital and risk profile to the regulators and public.

Basel III: The new set of norms

There were several limitations of Basel II. It was recommended for G-10 counties, thus leaving out the emerging economies. The scope of responsibilities for regulators in emerging economies may be too much for them to handle. Central banks might not be stringent enough in regulating private banks, thus letting them raise their risk exposure – defeating the entire purpose.

The essence of Basel III revolves around compliance regarding capital and liquidity. While good quality of capital will ensure stable long term sustenance, compliance with liquidity covers will increase ability to withstand short term economic and financial stress.

i. Liquidity Rules: The two standards of liquidity are:

a. Liquidity Coverage Ratio (LCR): This is to safeguard banks against sustained financial stress for 30 days period.

b. Net Stable Funding Ratio (NSFR): The objective of long term stability of financial liquidity risk profile is met by maintaining a ratio of amount available of stable funding to required amount of stable funding at a minimum of 100%.

ii. Capital Rules: Enhancement of risk coverage is achieved by introduction of Capital Conservation Buffer and Countercyclical Buffer.

a. Capital Conservation Buffer: A buffer of 2.5% (entirely out of Tier I capital) above minimum capital requirement to be maintained to ensure that banks accumulate buffers in time of low financial stress. It discourages distribution of earnings as a signal of financial strength in times of reduced buffers. [1]

b. Countercyclical Buffer: This buffer can be enacted by national authorities when they believe that the excess credit growth potentially implies a threat of financial distress.

c. Leverage Ratio: This aims to avoid the overuse of on- and off-balance sheet leverage in the banking sector, despite portraying healthy risk based capital ratios, a characteristic of the 2007 financial crisis.

The calibration of the capital framework and the time schedule of phase wise implementation of Basel III can be found in Exhibits 1 and 2 respectively.

Critique of Basel III

The global financial meltdown in 2007-2009 bought to fore the limitations of the Basel II accord. The norms failed to capture losses on off-balance sheet items leading to a decline in return on equity, in spite of meeting capital adequacy ratios. The new Basel III accord intends to proactively plug leakages from the previous norms.

For a country in crisis, it is estimated that, on an average, Basel III will impact by 4.9%, while the estimates are substantially higher for non-crisis countries. Given the impact regulations on capital adequacy can potentially have on a country, it is imperative for policy makers to recognize reasons for high elasticity and high cost of equity. Further, it is prudent for the central bank of a country to consider the capital adequacy norms and requirement of additional capital as an important tool to regulate monetary policy.

Global Overview: A Cross Country Analysis

Refer to Exhibit 3 for the current status of different countries at different stages in banking regulations.

[1] Modes of distributing earnings would basically include "dividends and share buybacks, discretionary payments on other Tier 1 capital instruments and discretionary bonus payments to staff" as per the Basel III accord (2011 Revision).

Australia: Australia was largely insulated from the 2007 crisis. Two measures saved Australia in this regard – the preventive actions taken prior to 2008, and the extraordinary public sector intervention 2008 onwards.

The key preventive actions in the period prior to 2008 are as follows:

- Well-managed Australian Authorized Deposit-taking Institutions (ADIs), which were prudent to avoid taking on unsustainably risky assets;
- Preemptive Australian Prudential Regulation Authority (APRA) supervision, maintaining an emphasis on capital adequacy and sound asset quality; and
- More stringent adoption of Basel II, which actually incorporated several propositions of Basel III.

It is important to note that tough times could indeed arise as a consequence of economic reversals in the Australian economy. In such a scenario, Australian ADIs would plausibly face a far higher level of capital stress. Clearly, the Australian Basel II framework might prove to be lacking. This is where the Basel III framework comes in – it incorporates a higher quality as well as quantity of capital.

Brazil: Brazil is expected to implement Basel III norms by October 2013, and will follow the international schedule as indicated by BCBS, with a few aspects to be implemented by 2012 itself. The requirement of additional capital to comply with Basel III norms is quite low in Brazil, and hence, is unlikely to have a negative impact on economic growth. The grey line indicates capital requirement of 11%. Except 3 banks, most of the banks comply with the regulation. The capital adequacy shall be raised to 13% under Basel III norms, in which case, 9 banks shall have a shortfall, while 18 banks shall be uncomfortably close to the regulation. However, banks shall have until 2019 to comply. Refer to Exhibit 4 for the timeline of phased implementation of Basel III accord in Brazil.

United Kingdom: Across the EU, the Basel norms are implemented under the legal name of Capital Requirements Directives (CRD). In UK, the responsibility of convergence to CRD is equally shared between the Financial Services Authority (FSA) and the HM Treasury. Following the 2008 financial turmoil gripping UK, the Prudential Regulation Authority (PRA) was formed as a successor to Financial Services Authority (FSA), the banking regulator, in April 2013, as a part of restructuring efforts for more effective supervision and governance. CRD IV, which directs implementation of Basel III, has been approved by the EU parliament, with the implementation to commence from January 2014. This creates an obligation to adopt the Basel III norms on all the member countries including the United Kingdom.

United States of America: Banking regulation is highly fragmented in U.S., because of the existence of regulation at both the federal and state level. The U.S. has always been a laggard in implementation of Basel norms. Multiple regulatory bodies have interest in the same issue.

All the banks in USA continue to follow the revised Basel I norms. Certain portions of advanced approach of Basel II were implemented, which applies to the most complex banks. This led to the Basel II norms being applicable for only large financial institutions, keeping the majority of the banking community outside the purview.

The financial crisis of 2008 called for sweeping changes in banking supervision and regulation standards in the country. Stringent capital requirements, severe credit analysis of securities rated externally and enhancement of Pillar 2 (Supervisory and review process) and Pillar 3 (Disclose and market discipline) were implemented.

Basel III shall be implemented in USA in a phased manner between January 1, 2013 and January 1, 2019. Implementation of Basel III norms in USA will require an additional Core Tier I Capital to the extent of $700bn, and total Tier I capital of $870bn, with the gap in long term funding estimated at $3.2trillion. These shortfalls are expected bring down Return on Equity of banks by 3%.[2]

Refer to Exhibit 5 for the timeline of phased implementation of Basel III accord in USA.

[2] McKinsey & Company (2010), "Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation," *McKinsey Working Papers on Risk*, No. 26.

Conclusion: Summary and Recommendations

The Basel norms, at some level, aim to create a global banking system that is fairly homogenous. While this very aim purports to build a more robust financial system, it may actually be its undoing. Simply speaking, a diverse group is an advantage since an attack only affects a certain percentage of its constituents.

In this context, Persaud (2000, 2001) had remarked that a market being large is not sufficient for it to be highly stable and liquid. It must also exhibit a broad range of participants having diverse objectives as one of the key characteristics. He further elucidates that local knowledge is a key competitive advantage to a bank.

The Basel norms also fail to consider national competencies. We have a global scenario where individual countries vastly differ in their extent of development. In an age where international banks are so prevalent, such differences across geographies can become tricky to deal with. The Basel accords need to incorporate, in some form, the element of national competencies so as to create a level-playing field.

While the Basel accords aim to bring along a host of benefits, they inevitably imply high costs for the adopting nations. This is especially true because there is no single set of dates corresponding to the implementation of a particular Basel regulation (say, Basel III) worldwide. This lack of synchronization in the adoption of the norms dilutes their efficacy. The proposal of phases and timelines for implementation should be put forth in a manner that ensures a fair amount of coordinated adoption.

Keywords

Industry: Financial Services

Function: Finance & Control, Economics

Other Keywords: Banking, Regulation, Basel Norms, Capital Adequacy, Liquidity

Contributors

Yatin Mohane (PGP 2012-14) is a Chartered Accountant and holds a B. Com. from R. A. Podar College of Commerce & Economics, Mumbai and can be reached at yatin.mohane@iimb.ernet.in

Akshay Shenoy (PGP 2012-14) holds a B. Com. (Hons.) from NMIMS University, Mumbai (Narsee Monjee Institute of Management Studies) and can be reached at akshay.shenoy@iimb.ernet.in

Acknowledgements

The student contributors thank Prof. Charan Singh (Economics & Social Sciences Area, IIM Bangalore) for his guidance in this work.

References

- Allen, Bill, Ka Kei Chan, Alistair Milne, and Steve Thomas (2012), "Basel III: Is the cure worse than the disease?" *International Review of Financial Analysis*, Vol. 25, pp. 159-166.
- Australian Prudential Regulation Authority (2011), "Regulation Impact Statement: Implementing Basel III capital reforms in Australia," *Australian Prudential Regulation Authority (APRA) Working Paper*.
- Bank of International Settlements (1988), "International Convergence of Capital Measurement and Capital Standards," *Bank of International Settlements Publications*.
- Bank of International Settlements (2006), "International Convergence of Capital Measurement and Capital Standards," *Bank of International Settlements Publications*.
- Bank of International Settlements (2009), "Revisions to the Basel II market risk framework," *Bank of International Settlements Publications*.
- Bank of International Settlements (2010), "Basel III: International framework for liquidity risk measurement, standards and monitoring", *Bank of International Settlements Publications*.
- Sobreira, Rogerio, and Tarciso Gouveia da Silva (2012), "Basel III and Brazilian Banks," *Associação Keynesiana Brasileira*.
- Bank of International Settlements (2011), "Basel III: A global regulatory framework for more resilient banks and banking systems", *Bank of International Settlements Publications*.
- Blundell-Wignall, Adrian, and Paul Atkinson (2010), "What Will Basel III Achieve?", *Groupe d'Économic Mondiale*.
- Chabanel, Pierre-Etienne (2011), "Implementing Basel III: Challenges, Options & Opportunities", *Moody's Analytics White Paper*.
- Cosimano, Thomas F., and Dalia S. Hakura (2011), "Bank Behavior in Response to Basel III: A Cross-Country Analysis", *IMF Working Paper*.
- Demirgüç-Kunt, Asli, and Enrica Detragiache (2010), "Basel Core Principles and bank soundness: Does compliance matter?", *Journal of Financial Stability*, Vol. 7, pp. 179-190.
- Financial Services Faculty (2012), "Basel III: New Bank Capital and Liquidity Requirements", *Briefing Paper*.
- Georg, Co-Pierre (2011), "Basel III and Systemic Risk Regulation – What Way Forward?", *Working Papers on Global Financial Markets*.
- Getter, Darryl E. (2012), "U.S. Implementation of the Basel Capital Regulatory Framework", *Congressional Research Service*.
- International Monetary Fund (2012), "Brazil: Detailed Assessment of Observance of Basel Core Principles for Effective Banking Supervision", *International Monetary Fund Publications*.

- McKinsey & Company (2010), *"Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation", McKinsey Working Papers on Risk*, No. 26.
- Jayadev, M. (2013), "Basel III implementation: Issues and challenges for Indian banks", *IIMB Management Review*, Vol. 25, pp. 115-130.
- Kumari, Raj (2013), "Basel III Accord in Indian Perspective", *International Journal on Global Business Management and Research*, Vol. 1, No. 2, pp. 92-100.
- McKinsey & Company (2010), "Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation", McKinsey Working Papers on Risk, Number 26.
- Mehta, Meera (2012), "Demystifying Basel III for Indian Banks", *International Conference on Technology and Business Management*, pp. 268-274.
- Prakash, Anupam (2008), "Evolution of the Basel Framework on Bank Capital Regulation", *RBI Occasional Papers*, Vol. 29, No. 2.
- PricewaterhouseCoopers (2012), "US Basel III Regulatory Capital Regime and Market Risk Final Rule", *PricewaterhouseCoopers Ongoing Series.*
- Reserve Bank of India (2001), "Reports of Committee on Banking Sector Reforms (Narasimham Committee II) - Action taken on the recommendations", *Reserve Bank of India Publications*.
- Reserve Bank of India (2012), "Report on Trend and Progress of Banking in India 2011-12", *Reserve Bank of India Publications*.
- Shah, Mamta (2013), "Basel-3 and its Impact on Indian Banking Sector", *Journal of Indian Research*, Vol. 1, No. 1, pp. 53-58.
- Yan, Meilan, Maximilian J. B. Hall, and Paul Turner (2012), "A cost–benefit analysis of Basel III: Some evidence from the UK", *International Review of Financial Analysis*, Vol. 25, pp. 73-82.

Exhibits

Exhibit 1: Calibration of the Capital Framework in Basel III

Capital Requirement / Buffer	Common Equity Tier 1	Tier 1 Capital	Total Capital
Minimum	4.5%	6%	8%
Conservation buffer	2.5%		
Minimum plus conservation buffer	7.0%	8.5%	10.5%
Countercyclical buffer range	0% - 2.5%		

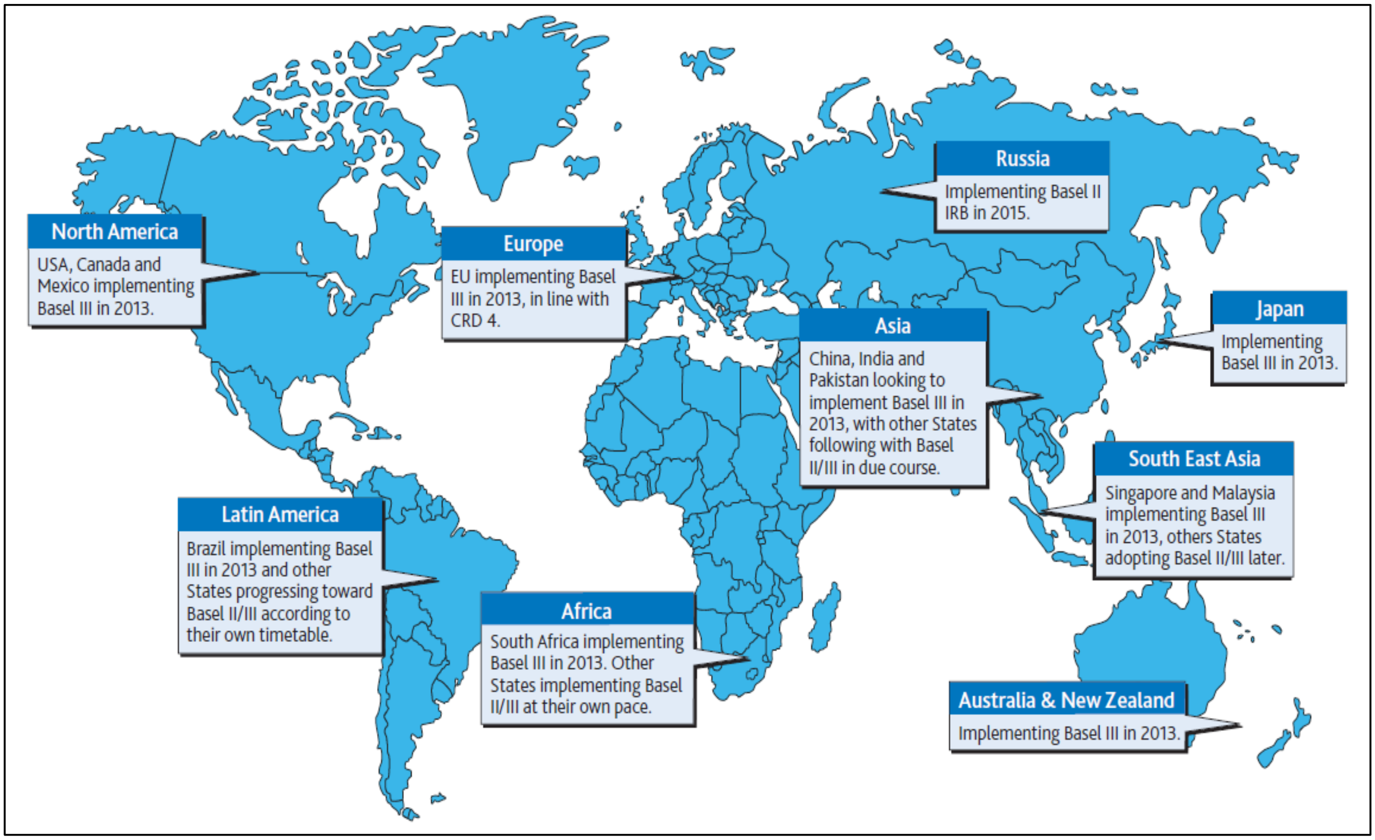
(Source: Basel III accord, 2011 Revision)

Exhibit 2: Time frame of phased implementation of Basel III

Phases	2013	2014	2015	2016	2017	2018	2019
Capital Ratio							
Leverage ratio						Migration to Pillar I	
Minimum common equity capital ratio	3.5%	4.0%	4.5%				**4.5%**
Capital conservation buffer				0.625%	1.25%	1.875%	**2.5%**
Minimum common equity plus capital conservation buffer	3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	**7.0%**
Phase-in of deductions from CET1		20%	40%	60%	80%	100%	**100%**
Minimum Tier I Capital	4.5%	5.5%	6.0%				**6.0%**
Minimum Total Capital		8.0%					**8.0%**
Minimum total capital and conservation buffer		8.0%		8.625%	9.25%	9.875%	**10.5%**
Capital instruments that no longer qualify as non-core Tier I or Tier II capital		Phase out over 10 year horizon beginning 2013					
Liquidity ratio							
Liquidity coverage ratio – (minimum)			60%	70%	80%	90%	**100%**
Net stable funding ratio						Introduce minimum standard	

(Source: Basel III Phase-in arrangements, Basel Committee on Banking Supervision)

Exhibit 3: Different countries are at different stages of banking regulations (September 2011)



(Source: Chabanel, Pierre-Etienne (2011), "Implementing Basel III: Challenges, Options & Opportunities," Moody's Analytics White Paper)

Exhibit 4: Timeline of implementation of Basel III in Brazil

Minimum parameters for regulatory capital under Basel III

Parameter divided by RWA	January of 2013 (F = 0.11)	January of 2014 (F = 0.11)	January of 2015 (F = 0.11)	January of 2016 (F = 0.09875)	January of 2017 (F = 0.0925)	January of 2018 (F = 0.08625)	January of 2019 (F = 0.08)
Core Capital	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Tier I	5.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Regulatory Capital (RC)	11.0%	11.0%	11.0%	9.875%	9.25%	8.625%	8.0%
Conservation Capital	-	-	-	0.625%	1.25%	1.875%	2.5%
RC + Conservation Capital	11.0%	11.0%	11.0%	10.5%	10.5%	10.5%	10.5%
Countercyclical Buffer*	-	0.625%	1.25%	1.875%	2.5%	2.5%	2.5%
Required RC (RRC)*	11.0%	11.625%	12.25%	12.375%	13.0%	13.0%	13.0%

(Source: Sobreira, Rogerio, and Tarciso Gouveia da Silva (2012), "Basel III and Brazilian Banks", Associação Keynesiana Brasileira)

Exhibit 5: Timeline of implementation of Basel III in United States of America

	Jan 1, 2013	Jan 1, 2014	Jan 1, 2015	Jan 1, 2016	Jan 1, 2017	Jan 1, 2018	Jan 1, 2019
Minimum CET1 Ratio	3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer				0.625%	1.25%	1.875%	2.5%
Minimum CET1 ratio + conservation buffer	3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Minimum Tier 1 Capital	4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer	8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Minimum Supplementary Leverage Ratio			Disclosure starts 1 Jan 2015			3.0%	3.0%
Minimum Tier1 Leverage Ratio	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)		20%	40%	60%	80%	100%	100%

(Source: PwC (2012), "US Basel III Regulatory Capital Regime and Market Risk Final Rule," PwC ongoing series)