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PILLARS OF PRUDENTIAL REGULATION IN THE BASEL REGIME AND THE RENAISSANCE OF INTERNATIONAL BANKING REGULATORY STANDARDS IN THE POST GLOBAL FINANCIAL CRISIS

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ABSTRACT

The Basel accords, in spite of being non-binding in nature, have been widely adopted by both member and non-member jurisdictions. The scope and ambit of the Basel regime have witnessed a gradual expansion over the past three decades covering all major aspects of prudential regulation. When Basel II sought to fundamentally expand the landscape of global banking standards, concerns of its acceptance surfaced. However, the global financial crisis has prompted the Basel regime to expand its clutches even more in Basel III and similar questions have emerged again. The present paper examines how Basel regulatory accords have been responsive to various banking supervisory needs since its inception and particularly at critical junctures to address regional or global financial crises. The paper identifies the expanding scope of the banking standards in successive Basel regimes and its influence on specific domestic regulatory mechanisms. A close analysis of Basel II accord is carried out first in order to demonstrate how it made a major leap and provided a basic framework for the future direction. The limitation of Basel II and the resulting need to comprehensively expand the horizons of Basel regime is highlighted. The new elements of prudential regulation that are brought within the purview of Basel III are examined to show their far reaching potential to influence national standards. The concluding part of the paper evaluates the merits and demerits of changes introduced by the Basel accords and highlights that the new standards of regulation brought within the purview of Basel III would reinforce the continued prominence of the Basel regime as the leading international banking regulatory source.

Key Words: International Banking Standards, Basel Regulatory Framework, Prudential Regulation, Capital and Risk Regulation.

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INTRODUCTION

The lacuna in domestic regulations of financial markets has generally been blamed for much of the adverse impact of the global financial crisis. However, the negative impact on national banking sectors raised concerns about the inherent limitations on international banking standards propounded by the Basel regime. The fact that many of the jurisdictions that suffered adverse impact on banking sector had already implemented the Basel standards shifted the concerns over the efficacy of the international regime. The Basel Committee on Banking Supervision (Basel Committee) has promptly responded with the new BASEL III regulatory standards that are specifically aimed at shielding banks against potential future risks. BASEL III takes a comprehensive and arduous approach in addressing such risks, which includes macro and micro prudential regulations, improvements in management of risk and transparency, better governance and stringent disclosure requirements.

The question of how far BASEL III is distinctly capable of preventing future crises calls for a closer scrutiny of the improvements it proposes in comparison with the BASEL II. Even if BASEL III positively stands such a scrutiny, its ultimate success may still depend on other externalities that are country specific. As the Basel accords are recommendatory in nature, they are non-binding upon states and require national legislation to provide any legal force. Even though the previous Basel accords, namely Basel I and II, have been generally followed by both Basel member jurisdictions and non-members, the non-binding nature of the accords has resulted in diversity among national implementation. Similar concern looms with regard to the implementation of Basel III. As some states and emerging economies have perceived BASEL III to be more onerous and capable of putting their banks at a disadvantage, it may not achieve wider acceptance like the previous accords. The differing perceptions and diverse regulatory responses clearly indicate that any assessment of the effectiveness of the BASEL III standards should transcend its independent merits and examine other externalities that may influence its success. The Basel banking regulatory standards being a non-binding soft law source leads to the common concerns like lax domestic responses or disparity in domestic adaptations.

The paper first identifies key regulatory standards introduced under the first two Basel accords in order to set the stage for comparison with the more contemporary developments under the Basel regime. The next part of the paper analyzes the major changes introduced in BASEL III in comparison with previous standards including the BASEL II. The concluding part of the paper evaluates the merits and demerits of the major evolutionary stages of Basel regime and highlights the potential strength of Basel III in addressing the major challenges arising from the global financial crisis.

INTERNATIONAL BANKING RISKS AND THE RISE OF THE REGULATORY COOPERATION

The works of Basel Committee, which was originally targeted at improving the banking practices among the member states of G10, have developed into a widely recognized set of international banking standards over the years. The standards, which had a more narrow focus in the beginning years, have inevitably expanded its scope and ambit to cater to the new challenges arising out of globalization and the ensuing interdependency of global financial markets and international banking institutions. It is interesting to note that the original purpose of setting up the Basel Committee by G10 member states was to address 'international' banking risks. Even in early seventies, national banks were found to have been exposed to the risks of banking collapse in other markets triggered by the failure of controlled exchange rates systems[1]. What started as an *ad hoc* cooperation soon turned into permanent feature fulfilling the needs to develop supervisory standards over banks in G10 member states and beyond[2].

[1] See Peter M. Garber, "The Collapse of the Bretton Woods Fixed Exchange Rate System", in Michael D. Bordo and Barry Eichengreen, (eds.) (1993). *A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform.* Chicago: University of Chicago Press. (pp. 461-494).

[2] At present the Basel Committee has 28 members namely Argentina, Australia, Belgium, Brazil, Canada, China, European Union, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg , Mexico, Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States . The Committee also has state and institutional observers namely Chile, Malaysia, UAE, Bank for International Settlements, Basel Consultative Group, European Banking Authority , European Commission and the International Monetary Fund.

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Although, the decisions of the Basel Committee are recommendatory in nature, member jurisdictions tend to consistently implement its standards albeit through varying forms of legislative measures.

To avoid regulatory arbitrage and provide a level playing field, the Committee monitors the implementation of its standards at national levels. It facilitates the supervisory bodies across home and host member jurisdictions to share information and other responsibilities in regulating cross border entities of banks. In pursuit of enhancing the effectiveness of supervision of cross border banking, the Committee has also sought the input and cooperation of supervisory bodies from non-member jurisdictions. Such involvements, as well as the desire to improve their competitiveness, have increasingly motivated non-member jurisdictions to voluntarily adopt a set of Core Principles[3] of the Basel Committee ("BCPs"). Beyond the measures to enhance supervision, the Basel Committee is widely renowned for its contributions in producing regulatory standards through three major accords of Basel I, II and III. The question of capital adequacy of banking institutions to balance various forms of risks has been a major concern of all the three accords, although the latter two accords have substantially increased the scope of their coverage to effectively address new forms of challenges.

The capital adequacy concerns arising out of the impact of the debt crisis in Latin America in early eighties called for the need for new approaches in measuring credit risks and capital standards. In 1988, the Basel I introduced a new capital and credit risk measurement system using a weighted approach to address diverse national standards among member jurisdictions. It specifically sought to reduce capital risks[4] of banks by requiring them to maintain a standard ratio of capital to weighted risk assets[5]. To assess the capital adequacy of banks, Basel I not only recommended the use of a weighted risk ratio (which was calculated using capital involving different categories of assets weighted against various risks) but also recognized specific elements pertinent in computing the relevant capital and related risks. Basel I delineated the constituent elements in computing the capital in two major categories namely the core capital and supplementary capital. Basel I provided a framework of assessing credit risks by prescribing risk weights to different categories of on-balance-sheet assets[6]. Interestingly, the Basel I frame work also encompassed credit risk arising out of off-balance-sheet exposures of banks[7].

MODERNIZATION OF INTERNATIONAL BANKING STANDARDS AND THE PILLARS OF PRUDENTIAL REGULATION

After its initial introduction in 1988, Basel I framework continued to evolve in the nineties through specific amendments and further refinements. However, the Asian financial crisis in the late nineties prompted some criticism over Basel and the ensuing changes in banking supervision in different countries ignited the thoughts for reinvigorating the accord[8]. Towards the end of the decade, a proposal for a new capital adequacy framework replacing Basel 1 was made and consequently a new Basel II Revised Capital Framework was

[3] The principles mainly pertain to the supervisory powers, responsibilities and functions of the national supervisory bodies and their prudential regulations. Among the total of 29 principles, majority of them are related to prudential regulation covering the issues of corporate governance; risk management process; capital adequacy; credit risk; problem assets, provisions and reserves; concentration risk and large exposure limits; transactions with related parties; country and transfer risks; market risks; interest rate risk in the banking book; liquidity risk; operational risk; internal control and audit; financial reporting and external audit; disclosure and transparency and abuse of financial services. See Basel Committee on Banking Supervision (2012). *Core Principles for Effective Banking Supervision.* Bank for International Settlements: Basel, pp.79 available online at http://www.bis.org/publ/bcbs230.pdf. ("BCPs 2012"). The BCPs are often used as the benchmarks in assessments of banking standards in both member and non-member jurisdictions. See Basel Committee on Banking Supervision (2006). *Core Principles for Effective Banking Supervision.* Bank for International Settlements Press & Communications: Basel, pp.7. ("BCPs 2006").

[4] The credit risk is the central focus of Basel I, which also comprehends within itself the country transfer risk. However, Basel I clearly acknowledges that banks could also face other forms of risks like investment risk, interest rate risk, exchange rate risk and concentration risk. See *infra* note 5, para 31.

[5] The standard ratio of capital to weighted risk was set at 8% (including a core capital element of at least 4%). See Basle Committee on Banking Supervision. (1988). *International Convergence of Capital Measurement and Capital Standards*. Para.44. available online at http://www.bis.org/publ/bcbs04a.pdf. (Basel I).

[6] See Annex 2, *ibid*.

[7] See Annex 3, *ibid*.

[8] See Rudi Bonte, et.al. (1999) "Supervisory Lessons to be drawn from the Asian Crisis" Basel Committee on Banking Supervision Working Papers, No.2. pp. 1-59.

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introduced in 2004. But the limitation of its focus only on the banking books, soon after lead to a further consolidation of the Framework to encompass the treatment of trading books of banks. The consolidated version of Basel II released in 2006 went beyond minimum capital standards set out in Basel I and introduced new elements like advanced risk measurement methods, internal assessment procedures and disclosure requirements comprehending both the banking and trading books of the banks[9].

Basel II prescribed three major sets of standards (referred as three pillars) to enhance the supervisory regulations governing the capital adequacy of internationally active banks. The first pillar, while continuing to emphasize on the minimum capital requirements, substantially expanded the provisions of Basel I. The second pillar offered a scheme of supervisory review to assess capital adequacy of banks and the third pillar sought to strengthen the market discipline through effective disclosure requirements. Distinct features were introduced in addressing all the three pillars. One of the significant improvements introduced in Basel II framework was the range of risks addressed across the three pillars. Apart from credit risk, Basel II took cognizance of other pertinent risks like market risk, operational risk, equity risks and interest rate risk.

Basel II provided more sophisticated methods of calculation of risks. Basel II provided an option for calculating the credit risk either through a 'standardized approach', utilizing external credit assessments or an 'internal ratings based approach' (IRBA), employing the internal credit risk rating systems of the banks with the approval of the relevant national supervisor. Basel II also recognized the use of an 'advanced' internal ratings based approach (A-IRBA). Moreover, banks were required to assess the credit risk under a 'securitization framework'. In determining regulatory capital requirements of a bank under Basel II, the exposure of relevant transactions to different types of securitisations[10] was prescribed as an essential element for consideration. While the minimum capital requirements under Basel II was calculated taking into account of credit, market and operational risks, the minimum standard ratio of capital to weighted risk (Capital Adequacy Ratio or 'CAR') still remained at 8% as was prescribed under the Basel I. However, improvements have been introduced in determining regulatory capital and risk weighted assets in the process of calculation of minimum capital requirements.

Basel II had also introduced more methods of calculation, in assessing other types of risks newly comprehended under its framework. For example, in addition to the standardized approach, the Basel II recognized a Basic Indicator Approach (BIA) and various Advanced Measurement Approaches (AMAs) in assessing operational risks and an Internal Models Approach (IMA) in assessing the market risk. In calculating the risk-weighted capital ratio for the purpose of determining the minimum capital requirements, Basel II utilized a definition that required the identification of the 'regulatory capital' (RC) and 'risk weighted assets' (RAs). Basel II provided a more comprehensive and methodical approach in computing these core elements. Different tiers of capital[11], grouped according to the nature of their stability and risk observing capacity, could be included in computing the RC albeit within a prescribed limit. Similarly, Basel II recognized different approaches in measuring the RAs. Finally, Basel II also mandated a specific set of deductions to be made from the capital components used in calculating the risk-weighted capital ratio. The above distinct features of Basel II ultimately improved the accuracy of the determination process of the minimum capital to ensure a better stability of banking institutions.

The drastically expanding scope of Basel II naturally raised questions of its acceptance by national regimes. However, studies in response to the concerns of resistance by national authorities have revealed a huge

[9] See Basel Committee on Banking Supervision (2006), *International Convergence of Capital Measurement and Capital Standards A Revised Framework Comprehensive Version.* (Basel, Switzerland: Bank for International Settlements Press & Communications). pp.333. (Basel II).

[10] Referred as 'securitisation exposure' it may involve a traditional securitisation or a synthetic securitisation or the characteristics of both. For example, securitisation exposures could involve asset-backed securities, mortgage-backed securities, credit enhancements, liquidity facilities, interest rate or currency swaps, credit derivatives, and cash collateral accounts. See Basel II, Para 541.

[11] For example, Tier 1 capital referred as core capital mainly includes equity capital and disclosed reserves of banks and Tier 2 capital referred as supplementary capital consist of undisclosed reserves, revaluation reserves, general provisions/general loan-loss reserves, hybrid debt capital instruments and subordinated term debt. Apart from these two tiers, Basel II also conditionally allows the banks to use a third tier consisting of short-term subordinated debt for a specific purpose of meeting a proportion of the capital requirements for market risks. See para 49 (i)-(xiv) *ibid*.

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majority of states including many non-member jurisdictions accepting the higher standards in Basel II[12]. In spite of the fact that Basel II regulations were widely implemented by many states including the USA, the global financial crisis and its adverse impacts on banks could not be prevented. The inability of Basel II in addressing some of the underlying causes of the financial crisis raised concerns about its effectiveness. For example, financial innovation of banks, which was also sought to be addressed by Basel II, was found to have been one of the contributing factors of the financial crisis originating the US. The failure to effectively regulate financial innovation in the US resulted in the offering of unsustainable financial and derivative instruments linked to sub-prime mortgages to institutional and individual consumers worldwide. Moreover, when US as an implementing member of Basel II (which also comprehended securitization) could not prevent the sub-prime mortgage crisis, the effectiveness of some of the new Basel II features were subjected to doubts. Some critics even questioned whether the capital regulation of banks inspired by Basel I and II has been instrumental in exacerbating the subprime mortgage crisis[13].

Some of the key improvements introduced in Basel II have also come under criticism. The ability of the new methods of calculation of risks to achieve the objectives of the accord had been questioned. For example, the A-IRBA method introduced in Basel II was not only found to be highly complex and not reflective of realities in the banking industry but also incapable achieving any high levels of risk sensitivity[14]. Therefore, the A-IRBA method was criticized to have the risk of creating as many problems as it solved! Moreover, Basel II was criticized for not having sound provisions addressing the risks that caused the global financial crisis namely the liquidity risk or risks associated with high leverage rate or excessive credit. While Basel II framework comprehended several types of risk coverage ratios, there was no explicit or sufficient emphasis to minimum liquidity ratio, liquidity coverage ratio (LCR) or leverage ratio. Moreover, Basel II did not treat systemically important banks distinct from others, and consequently no effective measures aimed at shielding the economically crucial banks or systemically important institutions were present. A wider range of such concerns soon prompted a rethinking on the part of the Basel Committee members, who have since proposed a revised regulatory framework in Basel III accord, which is sought to be implemented in different phases during this decade.

GLOBAL FINANCIAL CRISIS AND THE RENAISSANCE OF BASEL REGULATORY STANDARDS

Realizing the limitations of Basel II in addressing the financial crisis, the Basel Committee initially took a piece meal approach[15] in improving the shortcomings of Basel II. The Committee first released some specific measures immediately after the onset of the global financial crisis to address issues like liquidity risk[16] and securitization[17] to enhance Basel II framework (Basel II enhancements (or) Basel 2.5) with regard to all the three pillars. For example, the enhancements comprehended more market risks and increased the capital charge requirements through the introduction of a new incremental risk charge ("IRC") based on the exposure of banks in their banking and trading books[18]. However, subsequently when the need to produce a more comprehensive revision of Basel II became inevitable, Basel III was introduced in 2010. One of striking feature of Basel III is the prescription that global systemically important financial institutions (SIFIs) should meet additional standards, apart from those prescribed for regular banks in Basel III. A specific methodology of identifying the SIFIs is prescribed and depending on the degree of their systemic importance, different levels of additional capital requirements

[12] See for example, Andrew Cornford (2006) "The Global Implementation of Basel Ii: Prospects and Outstanding Problems" in UNCTAD, *Policy Issues in International Trade and Commodities Study Series No. 34* (Geneva: United Nations Conference on Trade and Development) pp.29.

[13]See M. A. Petersen, (2009) "Did Bank Capital Regulation Exacerbate the Subprime Mortgage Crisis?" *Discrete Dynamics in Nature and Society*, Vol. 2009, PP.34. See also Jesús Saurina and Avinash D. Persaud. (June 2008)," Will Basel II Help Prevent Crises or Worsen Them?" *Finance & Development* .pp.29-33.

[14] See Daniel K. Tarullo (2008) *Banking on Basel: The Future of International Financial Regulation*. (Washington: Peterson Institute for International Economics). pp.256 at p.189.

[15] The good example in this regard was the attempt to improve the provisions governing market risk under the Basel II. See Basel Committee on Banking Supervision (2009), *Revisions to the Basel II market risk framework*, (Basel, Switzerland: Bank for International Settlements Press and Communications) pp.29.

[16] See Basel Committee on Banking Supervision (2008), *Principles for Sound Liquidity Risk Management and Supervision*, (Basel, Switzerland: Bank for International Settlements Press and Communication) pp.38.

[17] See Basel Committee on Banking Supervision (2009), *Enhancements to the Basel II framework*, (Basel, Switzerland: Bank for International Settlements Press and Communications) pp.35.

[18] See Basel Committee on Banking Supervision (2009). *Guidelines for Computing Capital for Incremental Risk in the Trading Book*, (Basel, Switzerland: Bank for International Settlements Press and Communications).pp.7.

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(mainly consisting of equity capital) are prescribed to enhance their loss observing capacity. The three pillars introduced in Basel II are substantially enhanced (either through revisions or adding supplemental provisions) both in terms of capital requirements as well as risks against which they are weighted.

Other than the improved risk based capital requirements, Basel III also requires the banks to maintain a prescribed leverage ratio and prevent excessive leverage. The expansion of the scope of Basel III to categorically address leverage of banking operations is one of the significant additions arising from the experience of the global financial crisis. Drawing from the dire consequences of lack of liquidity of banks during the financial crisis, Basel III has also introduced a comprehensive set of regulatory standards[19] to ensure that banks have sufficient liquid assets to sustain during periods of financial distress. Basel III, not only warrants the banks to meet prescribed liquidity standards but also the national supervisors to continuously monitor the liquidity related risks among individual banks and across the overall banking sector. The new rules require banks to achieve a Liquidity Coverage Ratio (LCR) and a Net Stable Funding Ratio (NSFR) aimed at shielding against short and long term liquidity drains respectively. Pillar II and III have also been improved under Basel III with new features like enhanced risk management and governance of banks, increased disclosure requirements of a range of risk exposures, and improved methods of calculation of capital ratios.

The capital framework under Basel III is revised using a two pronged approach by improving the quality of capital reserves and taking a better cognizance of associated risks. Firstly, Basel III attaches greater importance to common equity in constituting the minimum capital for banks. From hindsight, it was clear that common equity of banks took much of the bearing of credit losses and therefore required strengthening under Basel III. Therefore, in defining capital and prescribing its components, Basel III mainly includes 'common equity' as Tier 1 capital in building up the regulatory capital of the banks. In order to avert individual jurisdictions following different definitions of capital, Basel III clearly prescribes three different categories of capital (grouped under two tiers[20]) that should form the constituent part of the regulatory capital. In mandating a minimum total regulatory capital of 8.0% of risk weighted assets, common equity is required to be at least 4.5% of such assets. Basel III also provides a detailed list of instruments that can qualify for inclusion in each category of capital in the two tiers and the set of common and specific criteria they should fulfill. The detailed approach of prescribing, not only a list of instruments but also a relevant set of criteria for them, demonstrates the determination to ensure the quality of the regulatory capital under Basel III.

Basel III has attached greater importance to the creation of buffers in order to tackle certain actions of banks and related consequences during periods of financial crisis. Drawing from the experience of the financial crisis, when banks continued to indulge in various forms of distributions like dividends or compensation packages to prevent any suspicion of weakness, Basel III prescribes a range of capital conservation measures. Such distributions caused dent upon capital buffers that were not sufficiently reinvigorated before returning to further lending activities during the financial crisis. These actions not only made individual banks more vulnerable but also increased pro-cyclical effects on the whole banking system, ultimately resulting in a wider mayhem. To prevent similar consequences, Basel III recommends the creation of two different buffers namely 'capital conservation buffer' and 'counter-cyclical buffer'. Capital conservation buffer is required over and above the minimum regulatory capital prescribed under Basel III. When the buffers are depleted during a crisis, discretional distributions by banks have to be reduced to conserve internally generated capital to rebuild the buffers. Basel III prescribes a capital conservation buffer consisting of common equity of 2.5%[21], above the regulatory minimum capital requirement of 4.5% discussed earlier. The capital buffer requirement, however, are to be implemented starting from 2016 within a period of two years and this period may be shortened by national authorities.

[19] These standards supplement the *Principles for Sound Liquidity Risk Management and Supervision* issued by the Basel Committee in 2008 as an immediate response to the failure of some leading banks due to the drain in liquidity arising out of the global financial crisis. See *supra* n.16.
[20] Other than the common equity, tier 1 includes another category (additional tier 1) and altogether the two categories in tier 1 should be at least 6% of the total of the regulatory capital. In such a case, tier 2 capital would constitute the remaining two percent of the total regulatory capital. See Basel Committee on Banking Supervision (2010). *Basel III: A global regulatory framework for more resilient banks and banking systems*, (Basel, Switzerland: Bank for International Settlements Communications). (as revised in June 2011).para.50. (Basel III).
[21] See Para 129 *ibid*.

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Various other behaviors of the banks were found to have increased the system wide pro-cyclical effects. This ultimately resulted in adverse effects beyond the banking sector, which Basel III addresses through the creation of two levels of counter cyclical buffers and a range of other measures. The relevant measures aim to maintain the leverage ratio of banks, stifle cyclical effects arising out of minimum capital requirements, promote stronger provisioning practices, protect banking sector from excess credit growth and create counter cyclical buffers[22]. The counter cyclical buffers are left for member jurisdictions to enforce, when they detect excess aggregate credit growth. Upon detection, a designated authority in a member jurisdiction may impose among other prudential measures, a 'national counter cyclical buffer' on its banks ranging anywhere between 0 to 2.5 % of the risk weighted assets. Individual banks also face a 'bank specific countercyclical buffer' at a similar range based on the geographic composition of their portfolio of credit exposures.

Basel III addresses a new range of risk exposure of banks (like derivatives related exposure) that came to the limelight during the financial crisis. Moreover, Basel III seeks to reduce the adverse effects of reliance on external credit rating. Basel III has introduced an improved mechanism to effectively address risks like counterparty credit risk (CCR) and risks associated with credit valuation adjustments (CVA). It requires banks to introduce enhanced counterparty credit risk management and imposes different testing requirements to reduce counterparty credit risk under Pillar II. Banks are encouraged to assess their own exposure to different risks to determine the appropriateness of the related risk weights and reduce the reliance on external ratings of the exposure. Supervisors of member jurisdiction are required to regularly assess external credit assessment institutions to ensure they meet prescribed criteria including relevant industry standards like the IOSCO Code of Conduct Fundamentals for Credit Rating Agencies.

Basel III regulates both on and off balance sheet leverage of banks to prevent excess leverage and at the same time provides additional protection against associated risks and its measurement errors. Basel III prescribes a leverage ratio, which is not only intended to protect the banks but also to reduce the effects of any deleveraging measures upon the broader financial system and the economy as a whole. It also introduces a standard method of calculation of the leverage ratio for member jurisdictions, new ways of measurement of risks and safeguards to protect against risks. The leverage ratio is calculated meticulously on a continuous basis taking into account the monthly and quarterly leverage ratios with due regard to the capital and total risk exposure measures of a bank[23]. In determining the risk exposure measures of the bank, Basel III interestingly requires both on and off balance sheet risks to be taken into account.

Basel III has introduced several features to enhance the supervisory review process of Pillar 2 and made changes to Pillar III disclosure provisions. Under the Pillar 2, certain banks are required to establish a collateral management unit to deal with issues arising out of margin calls and Basel III enumerates their functions and responsibilities in detail. As discussed earlier, banks are also required to improve the CCR management system under Pillar II. In this regard, the banks are required to establish a CCR control unit and conduct independent reviews of the CCR management system through internal auditing process to enhance supervision of both collateral and CCR management by banks[24]. While Pillar 2 enhancements were introduced and made effective with immediate effect[25], the changes in Pillar 3 were continued to be introduced and made effective subsequently[26]. When lack of proper disclosure by banks was found to be one of the major reasons for inability of the market to deduct the weaknesses of the banks during the last financial crisis, Basel III brought changes to disclosure requirements under pillar 3. Basel III disclosure requirements enhance transparency with regard to the constituent elements in regulatory capital[27] and improve market discipline. Some of the key requirements for disclosure include elements of regulatory capital, regulatory adjustments, limits and minima of different capital elements, features of capital instruments issued, explanation of calculations of different ratios relating to regulatory capital, and the terms

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[22] See Paras 20-31 *ibid*.
[23] See Paras 153-167, *ibid*.
[24] See the summary of some of the related improvements at para 106, *ibid*.
[25] The Pillar 2 enhancements were made effective from 2009 soon after their introduction.
[26] Pillar 3 requirements are to be enforced by banks from 2011 and the Basel Committee continued to release more specific instruments to supplement the disclosure provisions after Basel III. See *infra* n.29.
[27] For example, banks are required to disclose certain items included by banks in constituting their common equity capital like for example, investments in the common shares of unconsolidated financial institutions, mortgage servicing rights (MSRs) and certain deferred tax assets (DTAs). See para 88, *supra* n.20.

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and conditions that are parts of all instruments included in regulatory capital[28]. Basel III warrants that banks should also disclose their leverage ratio and its component parts in the future[29].

Finally, in response to the lacuna of international rules governing liquidity of banks, Basel III has proposed new global liquidity standards for banks. Firstly, the Basel Committee recommended some basic principles of liquidity risk management soon after the onset of the global financial crisis[30]. Subsequently, Basel III liquidity framework has been introduced, which prescribes two *minimum* standards of liquidity and a set of monitoring metrics to ensure consistency in related cross-border supervision. The two major requirements under Basel II warranting the banks to maintain the LCR and the NSFR discussed earlier are aimed at ensuring unencumbered liquidity of banks in the short and long terms respectively. The LCR is aimed at shielding banks from liquidity contingencies over a period of 30 days. The LCR is intended to offset net cash outflows arising out of sudden stress from circumstances like significant downgrade of banks public credit rating, loss of deposits, increase in secured funding haircuts or derivative collateral calls, etc. The objective of the NSFR, on the other hand is to address liquidity needs of banks over a one-year period to counter both on and off balance sheet liquidity risks[31]. To harmonize the monitoring of liquidity risk profiles of banks by supervisors of different implementing jurisdictions, Basel III requires them to verify certain common minimum types of information to detect vulnerability[32].

CONCLUSION

The international banking regulatory standards have witnessed some of the rapid developments and changes over the past decade than any other regulatory field. Much of the changes are attributable to the global financial crisis, which has warranted an overhaul of the whole banking governance system. The causes and consequences of the global financial crisis have reinforced the inevitable need for effective harmonization of national regulatory mechanisms through a strong global regulatory framework. This is critical in order to provide a level playing field for international banks. Moreover, it is essential to ensure that lack of harmonized standards and consequent downfall of some banks do not cause a ripple effect and bring down other banks around the world, which are increasingly intertwined in a globalized world. It is intriguing to note that the Basel regime, which had a limited original mandate among the G10, ultimately turned out to be a widely embraced regime even among non-members.

Unlike some of the other international economic forums, which were viewed skeptically by developing countries due to the dominant involvement of developed economies, the Basel regime commands a wider acceptance. The wider acceptance of the Basel regime should be mainly attributed to its emphasis on developing sound banking practices, which is seen more of a genuine effort to build industrial standards rather than an attempt to impose the standards desirable by developed economies. Moreover, the Basel regime has primarily taken a soft law approach distinct from such international economic forums that typically take a binding normative approach. In spite of the non-binding soft law nature, the Basel standards in Basel I, II and III have been recognized as the global benchmarks in banking regulation. Even though the three Basel accords have evolved considerably over time, the method of capital and credit risk measurement system using a weighted approach as introduced in Basel I still remains as a corner stone of the regulatory framework. Moreover, the initiative to address both on and off balance sheet risks in Basel I evidences a pioneering vision to comprehend unconventional market oriented risks, which has become a typical characteristic of modern financial markets.

The expansion of Basel II Revised Capital Framework to comprehend the trading books of banks demonstrates the constant attempt of the regime to align its standards to newly evolving risk exposures. The three pillars approach introduced in Basel II has become the foundation of the modern banking regulatory framework. The advanced risk measurement methods, internal assessment procedures and disclosure requirements in Basel II

[28] See para 91-92, *supra* n.20.
[29] See Basel Committee on Banking Supervision (2012). *Composition of capital disclosure requirement*s, (Basel, Switzerland: Bank for International Settlements Communications). pp.24.
[30] See *Supra* n.16.
[31] For example, the NSFR requires banks to maintain a minimum amount of stable sources of funding relative to the liquidity profiles of their assets (reflected in the balance sheet) and also develop potential for contingent liquidity needs arising from off-balance sheet commitments. See para.42. *Supra* n.20.
[32] See para 43. *Supra* n. However, the national supervisors are permitted to use additional information in the monitoring process in order to detect country specific liquidity risks.

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have expanded the scope and ambit of the regime and continued to be prominent in subsequent revisions of the accord. Even though the improvements laid down in Basel II have been quite sophisticated, they proved to be insufficient in shielding the banks from the global financial crisis within few years of its implementation. This evidences the need for the Basel regime to continuously monitor the faster phase in which banking practices and financial markets evolve and accordingly strengthen the regulatory framework. Although the prompt reaction of the Basel regime to the financial crisis reveals its resilience to combat new and emerging challenges, the experience calls for a preemptive approach than providing remedial measures.

Some of the major causes of banking failures during the financial crisis namely the lack of liquidity, high leverage etc., should have been effectively foreseen by the Basel regime. Such expectation is justified by several factors. Firstly, the crisis mainly brewed over a period of time in one of the Basel member jurisdiction, which had an effective supervisory mechanism and where the second and third pillars of Basel II have already been implemented. Secondly, causes like low liquidity or high leverage are well known factors capable of causing distress in banking operations and resulting consequences could not be defended as an unexpected development. Although, much of the causes of the crisis are attributable to the deregulated environment in the US, the lack of emphasis on liquidity or leverage ratios in Basel II at the time of the crisis was quite obvious. There is no evidence of any lax in implementation of Basel II in US. The fact that the crisis originated in US in spite of its ardent following of the regime leads to a possible conclusion that the Basel II regime was inherently weak and therefore was incapable of preventing the crisis. Similarly, the lack of distinction between different types of banks under Basel II did not require special measures to strengthen systemically important banks. This did not provide the possibility to prevent the failure of crucial banks and thereby contain the crisis within the banking sector or limited jurisdictions.

In spite of the prompt response to the crisis, the initial attempt of the Basel Committee to rescue the Basel II regime through enhancement measures was susceptible to criticism. However, the comprehensive plan to overhaul the system through Basel III has subdued such criticism and the focus has since shifted to the proposed measures in Basel III. The effectiveness of the new measures are continued to be studied and major jurisdictions have started preparatory measures for implementation. Although the long implementation phase of Basel III spanning over a period of 7 years could be seen skeptically by some critics, the wide array of changes introduced, as well their potential burden on banking institutions justifies the recognition of a gradual implementation. In particular, the recognition of transitional arrangements within Basel III is a prudent move as it would keep any lackluster response from member jurisdictions under check. It is interesting to note various motivations like the need to prevent regulatory arbitrage, the urge to keep up with regulatory improvement of major banking and financial centers, the desire to protect vulnerable segments like financial consumers and other economic stake holders, etc are driving national jurisdictions to embrace Basel III.

The new areas of regulation brought within the purview of Basel III are reinforcing the hopes for the continued prominence of the Basel regime. The major enhancements to the quality of the capital and range of risks comprehended are capable of strengthening pillar I to withstand future shocks. The two pronged approach in improving internal risk management and external supervisory standards under the pillar two would make banks less susceptible to inadvertent risky practices. The new disclosure requirements comprehending information like securitization exposures, off balance sheet stakes and explanations relating to methods of calculations of ratios and risks are no doubt capable of improving the overall transparency and the accountability to the market under Pillar III.

The two other striking additions namely the liquidity standards and focus on systemically important banks are undeniably major boosters for the long term sustainability of the Basel III framework. The emphasis on globally systemic financial institutions exemplifies the drive of Basel III to nurture national regimes to be increasingly outward looking and it is a crucial move to ensure stability in international financial markets. Given the fact that different national regimes have taken specific domestic measures in the wake of the global financial crisis to address concerns of various stake holders like the banking industry and the financial consumers is expected to result in some inevitable diversity among national implementation of Basel III. Such a trend is said to be already visible even among major implementing members of the Basel regime. It is essential to ensure that the diversity does not dilute the effectiveness of core features of the Basel III.