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## REVIEW ARTICLE

### AN OVERVIEW AND EMERGENCE OF BASEL ACCORDS

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#### ABSTRACT

In the financial system, banks play a very crucial role in mobilizing financial resources and adding value to those resources through their various activities. Risks are inherent in all business activities, more particularly in banking business as it is concerned with money, demand & supply and the factors influencing them. Liberalization and its deregulation brought the drastic changes in the Indian Banking System, which was earlier working in a highly regulated environment. This paper sets out to examine the appropriateness for emerging market economies to implement a new set of capital requirements as recommended by the Basel Committee on Banking Supervision. The main objective of research paper is to study the three pillars of Basel accreditation and investigate the impact of Basel II on the Indian banking system. It also explains why the transition from Basel II to Basel III norms has become necessary to bring in measures and safety standards which would equip the banks to become more resilient during the financial crises and prevent the banks being subject to liquidations.

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#### INTRODUCTION

The Indian Banking industry has drastically changed due to liberalization and globalization process started in 1991. The financial system is the blood of the economy. In order to strengthen the performance of banking sector, it is adopting international best practices with its vision. Rising global competition, increasing deregulation, introduction of innovative products and delivery channels have given rise to risk in banking sector. The success of risk management lies in the ability to gauge the risks and take appropriate measures. To protect banks from various threats and risks, several guidelines have been introduced by Regulatory Authorities all over the world and one such standard is prescribed by the Basel Committee for Banking Supervision (BCBS) for maintaining capital adequacy all over the world. The Basel Committee on Banking Supervision (BCBS) was formed in 1974 by Central Bank Governors of G10 countries under the support of the Bank for International Settlements (BIS) following the collapse of Bankhaus Herstatt in Germany and Franklin National Bank in the United States in 1974. (BIS, 2008; Engelen, 2005). The G-10 Committee consists of members from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Spain, Sweden, Switzerland, UK and US. Basel is a city in Switzerland which is also the headquarters of Bureau of International Settlement (BIS).

BIS endorse support among central banks with a common goal of financial stability and common standards of banking regulations. The set of agreement by the BCBS, which mainly focuses on risks to banks and the financial system are called Basel accord. The purpose of the accord is to ensure that financial institutions have enough capital on account to meet obligations and absorb unexpected losses.

#### Review of Literature

1. As per research paper entitled on "Indian banks and Basel II" presented by Aggrawal S, Paruthi R. and Singla A. (2013) emphasizes the detailed study about the Basel II and also helps in to find out the relationship between capital adequacy, non-performing assets and net profits of some selected private and public sector banks. This paper also explores the effect on Net profit due to change in Capital Adequacy ratio and non-Performing Assets.
2. As per research paper entitled on "A Critical review of Basel – III Norms for Indian PSU Banks" presented by Jain M. (2013) focus on the risks that banks are vulnerable to, particularly after the crisis in the banking sector, which was triggered by the problem in the US sub-prime mortgage market. Basel III aims to plug the gaps in the existing Basel II guidelines. The guidelines will ensure that banks are well capitalized to manage all kinds of risks. The existing norms stipulate that banks should maintain Tier-I capital, or core capital, and Tier-II capital that comprise instruments with debt-like features.

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3. Sinha (2011), presented paper on "A Perspective of Basel Committee-II Recommendation on Indian Banking Sector" emphasizes the objective to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide. Commercial banks in India will start implementing Basel II with effect from March 31, 2007. The Present Study track the Basel –II accreditation under which Banks have to aside some capital charges for the Operational Risk. The Author also highlighted the Lapses of Basel II and Suggested need of Basel III in Indian Banking System.
4. As per researcher Lall (2009), presented paper on "Why Basel II failed and Why Basel III is Doomed" argues that this conclusion is false: Basel II is not the solution to the crisis, but instead an underlying cause of it. He tried to highlight why Basel II failed and why the latest raft of proposals to regulate the international banking system – from the US Treasury's recent financial white paper to the latest round of G-20 talks in Pittsburgh – are likely to meet a similar fate.
5. Goal and Kumar (2013), presented paper on "Basel III: An Enhancement of Basel II Norms" briefly described the variation from Basel II to Basel III norms. This study is based on the secondary data. The data has been collected from annuals reports of banks, newspapers, journals and various websites.

**OBJECTIVE OF THE STUDY:** The main objectives of the study are given below:

- A.) To study the background of Basel Accords.
- B.) To Investigate the impact of Basel II
- C.) Suggestion and emergence of Basel III

### **BASEL I ACCORD**

BCBS initiated the Basel I norms in 1988, considered to be the first move towards risk weighted capital adequacy norms. The main focus of Basel I is credit risk. The minimum capital requirement was fixed at 8% of risk weighted assets which means assets with different risk profiles. India adopted Basel I guidelines in 1999. Basel I framework was based on CRAR. In order to calculate the CRAR, the bank's assets should be weighted by five categories of credit risk - 0, 10, 20, 50 and 100 per cent. Table 1 provides the risk weights for different asset classes under Basel I. In the computation of the CRAR, the numerator will be the sum of the bank's tier I and tier II capital (tier II capital should be limited to a maximum of 100 per cent of tier I capital), plus a tier III capital introduced in the 1996 amendment to support market risk. All banks operating in India to maintained minimum Capital Funds at 8% of Total Risk Weighted Assets. This fixed relation soon came to be known as Basel capital ratio and was defined in the following way:

**Basel capital ratio** =  $\frac{\text{Capital (tier 1+ tier 2)}}{\text{Assets (weighted by credit type) + Credit risk equivalents}}$

Assets (weighted by credit type) +  
Credit risk equivalents

**Tier 1** (permanent capital) = equity capital and disclosed reserves

**Tier 2** (supplementary capital) = undisclosed reserves, revaluation reserves, general provisions/ general loan-loss reserves, hybrid debt capital instruments and subordinated term debts.

**Chart 1.**

ASSET CLASSES AND WEIGHTS	
Risk Weight	Asset Type
0 per cent	Cash held Claims on OECD central governments Claims on central governments in national currency
20 per cent	Cash to be received Claims on OECD banks and regulated securities firms Claims on non-OECD banks below 1 year Claims on multilateral development banks Claims on foreign OECD public-sector entities
50 per cent	Residential mortgage loans
100 per cent	Claims on the private sector (corporate debt, equity, etc.) Claims on non-OECD banks above 1 year Real estate Plant and Equipment

**Source:** Basel Committee on Banking Supervision (2005), An Explanatory Note on the Basel II Internal Rating Based Risk Weight Functions, BIS, Bank for International Settlements

Major pitfalls of Basel I is static measure of default risk, simplified calculation of potential future counterparty risk, lack of recognition of portfolio diversification effects. However, Basel I comprised of some rigidities, as it did not discriminate between different levels of risks. It focused only on credit risk. As a result, a loan to an established corporate borrower was considered as risky as a loan to a new business.

### **BASEL II**

The Basel Committee on Banking Supervision (BCBS) released the Third Consultative Paper (CP3) on the New Basel Capital Accord (Basel-II) in July 2003, applicable to all member countries from January 1, 2007 and India is no exception. Basel II considered being the refined and reformed versions of Basel I accord. As compared to Basel I, Basel II is a much more comprehensive framework of banking supervision was fully implemented on April 2009 in India where banks are required to maintain a Capital to Risk Weighted Assets Ratio (CRAR) at 9%.

#### **Basel II is based on three pillars**

**The First Pillar – Minimum Capital Requirements:** sets out minimum regulatory capital requirements the amount of capital, banks must hold against risks. The Minimum Regulatory Capital (MRC) is set by the Capital Ratio which is defined as:

**MRC** = Total Capital - Tier-I + Tier-II + Tier-III

Credit Risk + Market Risk + Operational Risk

**Tier I** = Ordering Capital + Retained Earnings & securities premiums-Intangible Assets

**Tier II**=Undisclosed Reserves + General bad debt provision + Revaluation Reserve + Subordinate Debt + Redeemable Preference Shares

**Tier III**=Subordinates debt with a maturity of at least 2 years

**Credit Risk**=It is an Investors Risk of loss arising from a borrower who does not make Payment as Promised. There are two approaches for credit risk - the standardized approach (SA) and the internal ratings based (IRB) approach. In Standardized approach, credit risk is measured in the same manner as in Basel I and IRB approach is concerned with the estimate of internal credit risk, subject to supervisory approval, to determine the capital charge for a given exposure.

**Market Risk**= It is the risk of a market portfolio. In this standardized and internal model based approaches have been suggested.

**Operational Risk**= It is the risk of loss resulting from inadequate or failed internal process, people and system or from External events. It comprise three approaches - the basic indicator approach (BIA), SA and advanced measurement approach (AMA)

### The Second Pillar - Supervisory Review Process

Pillar II defines the process for supervisory review of an institution's risk management framework and, ultimately, its capital adequacy. This also lays down the key principles for supervisory review, risk management guidance and supervisory transparency and accountability.

### The Third Pillar – Market Discipline

Pillar III aims to encourage market discipline through enhanced disclosure by banks. This is aimed at improving the transparency in banks and improves reporting for such regulations. The Committee aims to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes and hence the capital adequacy of the institution.

### Impacts of Basel II

The new Basel Accord i.e. Basel II have both positive and negative impacts on the Indian banking system in various ways.

#### Positive impacts

1. The implementation of Basel II provides the Indian banks an opportunity to reduce their credit risk weights as well as reduce their required regulatory capital.
2. The Standardized or IRB approach will help the banks for most of its exposures, including its securitization exposures.
3. Another assistance that banks would get from Basel II is a better understanding of risk return tradeoff for capital

supporting specific business, customer products and processes.

4. It also provides incentives for banks to transfer credit risks through instruments such as asset-backed securities or credit derivatives, while retaining the customer relationship.
5. Basel II aligns economic risk more closely with regulatory risk.

#### Negative impact

1. The capital required by the bank would depend on the level of bad debts it has or the non-performing assets lying with it.
2. The preference of banks for government securities and the increased risk-aversion of banks following the adoption of Basel II would adversely affect credit to agriculture and small scale industries.
3. Implementation of Basel II norms by the banking sector will reduce credit availability to small scale industries.
4. Absence of Historical Database has also the one major factor for concern Computation of probability of default.
5. The Basel II is very complex and difficult to understand.
6. It put pressure on Return on equity.

### BASEL III

Basel III norms were published in Dec 2010 to minimize the probability of recurrence of a crisis of magnitude as that of 2008 and whole financial markets tumbled. One of the major debacles was the fall of Lehman Brothers. One of the interesting comments on the Balance Sheet of Lehman Brothers read: "Whatever was on the left-hand side (liabilities) was not right and whatever was on the right-hand side (assets) was not left." Thus, it became necessary to re-check Basel II and cover the loopholes and make new Basel norms more stringent and wider in scope. BCBS, through Basel III, put forward norms aimed at strengthening both sides of balance sheets of banks viz. (a) enhancing the quantum of common equity; (b) improving the quality of capital base (c) creation of capital buffers to absorb shocks; (d) improving liquidity of assets, (e) optimizing the leverage through Leverage Ratio, (f) creating more space for banking supervision by regulators under Pillar II and (g) bringing further transparency and market discipline under Pillar III. Thus, Basel III norms were released by BCBS and individual central banks were asked to implement these in a phased manner. The key elements of the proposed Basel III guidelines issued by RBI are:

1. Simplifying the structure of bank capital and minimum capital require 8%
2. Minimum capital plus Conservation buffers fixed at 10.5%
3. Expanding the risk coverage of the capital base
4. Increase the capital requirement and Counterparty credit risk Stress tests, which effects on deteriorating credit quality
5. Market discipline Increased transparency
6. Enhanced bank supervisory coordination and cooperation during periods of stress
7. In order to maintain a cushion on capital that can be used to absorb losses during periods of financial and economic

stress banks will be required to hold a capital conservation buffer of 2.5%.

8. With the objective to increase capital requirements in good times and decrease the same in bad times countercyclical buffer has been introduced range from 0% to 2.5%, consisting of common equity or other fully loss-absorbing capital.

### Comparison of Capital Requirements under Basel II and Basel III

Chart 2.

Requirements	Under Basel II	Under Basel III
Minimum Ratio of Total Capital to RWAs	8%	10.50%
Minimum Ratio of Common Equity to RWAs	2%	4.50% to 7.00%
Tier I capital to RWAs	4%	6.00%
Core Tier I capital to RWAs	2%	5.00%
Capital Conservation Buffers to RWAs	None	2.50%
Leverage Ratio	None	3.00%
Countercyclical Buffer	None	0% to 2.50%
Minimum Liquidity Coverage Ratio	None	From (2015)
Minimum Net Stable Funding Ratio	None	From (2018)
Systemically important Financial Institutions Charge	None	From (2011)

Source: <http://www.allbankingsolutions.com/Banking-Tutor/Basel-iii-Accord-Basel-3-Norms.shtml>

### Conclusion

Due to pitfalls in the Basel I and Basel II, BCBS published new guidelines for Basel III to improving the Indian financial system and absorb unexpected losses. As Basel I focus only on the credit risk. Similarly, Basel II is unable to perform well due to financial crisis happens in 2008. The Basel II Accord includes operational risk into the capital adequacy ratio which significantly changes credit risk measurement and create the confusion to understand the framework. By adopting specific risk measurement, Basel II has critical effects on market risk management, and changes in the risk calculation methods.

The Basel II creates a self-discipline and supervisory review only for the large banks that have better risk management and measurement expertise, also have better capital adequacy ratios and geographically diversified portfolios. Thus, banks will have to re-structure again if they are to survive in the new environment. The biggest challenge is the re-structuring of the assets of some of the banks as it would be a tedious process, since most of the banks have poor asset quality leading to significant proportion of NPA.

Basel III norms reduce the disruptive and devastating crises occur in the future monitor the health of individual banks and coordinate the interlinked network of international banks. This norm positively performs when weaknesses potentially threaten the health of the system. Basel III has some micro-prudential elements to contain the risk in each individual institution and a macro-prudential overlay that will "lean against the wind" to take care of issues relating to the systemic risk

The Reserve Bank of India has extended the timeline for full implementation of the Basel III capital regulations by a year to March 31, 2019 We believe that Indian Banking industry is in

sound position to comply with Basel III norms within stipulated time limits, owing to stringent RBI guideline.

Micro- prudential elements of Basel III	Macro-prudential elements of Basel III
Definition of Capital	Leverage Ratio
Enhancing risk coverage of capital	Capital Conservation Buffer
Leverage Ratio	Countercyclical Capital Buffer
International Liquidity Framework	Addressing inter connectedness
	Addressing too- big -to -fail problem
	Addressing Pro-cyclicality of provisioning requirements
	Addressing reliance on external credit rating agencies

### REFERENCES

- Aggarwal, S., Paruthi, R. and Singla, A. 2013. Indian Banks And Basel II, *et al./ Elixir Fin. Mgmt.* 55A (2013) 13187-13192,
- Agrawal, P., Nagar, S. and Kumar, S. 2010. An Overview And Implication Of Basel I And Basel II, VOLUME NO: 1 ISSUE NO. 5 (SEPTEMBER) ISSN 0976-2183,
- Goyal, R. 2011. RBI Guidelines For Implementation Of Basel III Guidelines - An Overview, [www.wallbankingsolution.com/.../Basel-III-implantation-guidelines-RBI](http://www.wallbankingsolution.com/.../Basel-III-implantation-guidelines-RBI).
- Goel, S. and Kumar, R. 2013. Basel III: An Enhancement Of Basel II Norms, *International Journal of Research in Management, Science and Technology* (E-ISSN: 2321-3264) Vol. 1; No. 2, December 2013,
- Jain, M. (2013). A Critical review of Basel – III Norms for Indian PSU Banks, *DRIEMS Business Review - Vol. -1 No. - 1*.
- Lall, R. 2009. Why Basel II failed and Why Basel III is Doomed., GEG Working paper 2009/52,
- Murthy, C. M. and Pathi, S.N. 2013. An Assessment Of Risk Management In Banking Sector: A Study With Special Reference To Public And Private Sector Banks In India, *International Journal of Advanced Research in Management (IJARM)*, ISSN 0976 – 6324
- Sinha, R. 2011. A Perspective of Basel Committee-II Recommendation on Indian Banking Sector. *IJEMR – October 2011-Vol 1, Issue 5 - ISSN 2249 –2585*.
- Sbalabrubium, C. 2012. Basel III Norms And Indian Banking: Assessment And Emerging Challenges, Abhinav Publication, *national monthly research journal of research in commerce and management*, Volume no 1, Issue no. 8, ISSN 2277-1166,
- Sreejata, B. 2012. Basel I And Basel II Compliance Issues For Banks In India, Madras School Of Economics, Working Paper 68, [www.mse.ac.in/pub/WORKING%20PAPER%2068%20-%20Wev.pdf](http://www.mse.ac.in/pub/WORKING%20PAPER%2068%20-%20Wev.pdf)

### Websites

- [www.allbankingsolutions.com/Banking-Tutor/Tutor-main.htm](http://www.allbankingsolutions.com/Banking-Tutor/Tutor-main.htm)
- [www.rbi.org.in](http://www.rbi.org.in)
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