Chapter 2

Review of Literature

2.1 Indian Banking Sector

Gauba. R., (2012) mentioned in her work on the title “The Indian Banking Industry: Evolution, Transformation and Road Ahead” that “the Indian banking industry has developed comparatively well post the reformation era but still a large part of the market has remained unexplored due to varied reasons. She has also drawn attention towards the fact the Indian is one of the biggest household saver in the world but it’s nearly half of the population is still unbanked. In the same manner the credit facility is also very limited. She had also mentioned about the various road blocks that the industry is facing in relation to growth one of which remains the Basel norms. She has mentioned that Indian banking on one hand had still not tapped half of its market on the other hand it has to match the pace with the global world. She further added that still the Indian banking industry has a huge and flexible potential, being one of its kind it will always evolve as a strong player in the global market. She further elaborates that Indian banking one of its kind can survive the depression and stress of the world market as can be seen from the crises on 2007-2008”

Koundal. B., (2012) in his paper on “performance on Indian banks in Indian Financial System” has taken various variables to test the effectiveness of the Indian banking system at all the level. He concludes in his paper that the Indian banking is improving due to the various reform measure of the past which is also affecting the profitability of the banks. He has mentioned in the paper that the profitability has improved in the public sector banks also but the larger piece of cake is still with the private sector and the foreign banks. Hence the public sector banks need to look at various challenges to improve its performance.

RBI, (2013) in the report on “Trends and Progress of Banking in India 2012-13” stated that the deteriorating macroeconomic conditions on the domestic level clubbed with the subsided

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global growth has posed challenges to the banking sector during the period of 2012-13. Though various steps were taken during the year to handle these challenges it was felt that on the regulatory and supervisory policy front, the envisaged move towards risk-based supervision, initiatives for improved cross border supervision and cooperation and enhanced oversight of financial conglomerates are gaining importance. The stress on bank’s assets quality is posing as one of the biggest challenge in the industry. Many policies are contemplated to expand and strengthen the banking infrastructure. Banks are required to capitalize on these factors and play a supporting role for the economic activity of the society by trying to meet out the financial needs of all the sections of the society.

The same thing is mentioned in the report published by EYGM Limited, (2013)\textsuperscript{25} with the title “Transforming bank, redefining banking Global Banking Outlook, 2014-15” It has been stated in the report that the global banking industry is still facing the wrath of 2008 world economic crises. The European banking feel that its recovery still tentative as it’s the time to comply with the rules of European central bank as they have to go through the Asset quality review conducted by the central bank and also its time to return the money of refinancing operation unless the central bank extends the same. On the other hand debt and budget system of the banks in US is still far from recovery. The global economy is bracing itself for the impact of tapering when the US Federal Reserve finally starts s to wind down its quantitative easing program. It’s stated in the paper that complying with the new rules will be tough task in such a situation but the banks around the globe whether in the developing country or in the developed country will have to formulate the rules in accordance with the new policy reforms. They will have to take initiatives for improving their asset quality and will have to prepare themselves for cross border supervision so that the crises of 2007-08 are not repeated in the future. The report has laid emphasis on the implementation of the BASEL norms in the same manner around the globe living no difference for developed or developing country.

IBEF, (2015)\textsuperscript{26} in its report on Indian banking sector has said that the Indian banking sector is growing at a stable pace. With the change in the government policy focus has shifted towards the unbanked population of the country. The report also draws attention towards the robust


\textsuperscript{26} IBEF (2013), The Indian Banking Sector: Recent Developments, Growth and Prospects. India Brand Equity Foundation, Retrieved on September 14, 2015, From http://www.ibef.org/research/insights/235
growth of indirect banking channel. The report draws attention towards the rural penetration through various government schemes. In its report on NPA it draws attention towards the fat that the private banks are still keeping low on NPA while it is becoming a case of concern for the public sector banks. The report has also shown a concern for the requirement of additional capital; it’s been mentioned in the report that implementation of Basel 3 and new banks coming up in the banking system will increase the demand of capital a lot. But along with it the report has also given the solution by stating that the new banks can be mandated by RBI to hold 40% of their capital with them as reserves for next 5 years which can be later reduced. The report appreciates the improvement in the Indian banking sector on the front of risk management practices, technological innovations, focus on financial inclusion etc. the report overall presented by IBEF states that the Indian banking system is moving in right direction at the right pace with proper policies and methods. This same thing can be supported by the news published in Nair. V. (2015) where Moody’s have improved the rating of the Indian banks from negative to stable. Moody’s have stated in their report on Indian banking that “The stable outlook on India’s banking system over the next 12-18 months reflects our expectation that the banks’ gradually improving operating environment will result in a slower pace of additions to problem loans, leading to more stable impaired loan ratios,” CAFRAL (2014) in the conference held on the topic “Banking Structure of Indian” organised by CAFRAL have summarized the discussion in the conference “the participants believed that we are currently at the turning point in the financial sector an in that more specifically banking sector. If we look at the negative aspect of the system on one hand we are having a system that is underperforming, which is full of fragilities and is inefficient to fund the current economy conditions. Along with it the governance of the banking system is also at the back foot. But there is also a positive thing about the system that is our banking system, which is strong, vibrant, outward looking and which is trying to reach all the corners of the country thus providing a positive impetus to the national economy. Finance is the main part of any economy to keep it going and in that banking plays a major role. Today the credits are


rising day by day thus giving a positive push to the economy but a problem has arisen towards the deposit side. The deposits and savings are going low along with this there is one more problem that is coupled that still many people do not follow the formal saving method and are remaining unbanked. Vibrant institutions of various kinds e.g. big banks, niche banks, NBFCs, etc., can contribute to stability because not everybody does the same thing. Public Sector Banks (PSBs) are a dominant part of the banking system in India and have been a great source of stability and employment. However, there are growing concerns on the governance structure and quality of assets. In order to address these issues as well as to reduce the fiscal burden on account of recapitalisation of PSBs, issue of non-voting equity shares or differential voting equity shares may be considered. Government could also consider diluting its stake below 51 per cent in conjunction with certain protective rights to the Government by amending the statutes governing the PSBs. PSBs are an integral part of the system and they need to be strengthened from where they are right now. Along with all this differential licencing policy of the RBI will also change the Indian banking structure in the future.”

2.2 Research on Basel I

2.2.1 Studies in Indian perspective

Sen. S., et.al., (2005)\textsuperscript{29} stated that the effects of the BASEL accord on the SME sector which is one of the major stakeholder in the banking industry. They conclude in their work that following the accord can deepen the gap between the lending to the priority sector lending as the sector needs to be redefined with the passage of time. On one hand the SME’s are requiring finance while on the other the banking sector norms declare many of them unbankable. The sector will have to suffer with the changes in the banking system which will take place due to BASEL accord. This was their conclusion in 2005 after which the economy changed at a greater pace and saw many setbacks. If we refer their study we come to know that the situation was complicated in 2005 which will be further graved with the implementation of new accord.

Sarma. M. et al, (2007)\textsuperscript{30} in their work on “Capital adequacy regime in India: An overview: had concluded that capital adequacy being the prominent part of the Basel accord the Indian banks are well placed on it. Where the world wide capital adequacy according to Basel 1 is 8\% Indian banks need to mandatory maintain 9\%. The authors observed that in that time the banks were having a CRAR of 12\% much better than that was required. Further to this the authors also drew attention towards the infrastructural and technological development of the Indian banks. The authors said that implementation of Basel 3 will require a lot of change in the Indian banking sector on these fronts, which will require a lot of cost. This is a big challenge to the Indian banking industry but it is believed that the globally Indian banking Industry will soon adapt to these changes. The author further says that no doubt this will help in flourishing of the Indian IT industry but in long run will make the Indian banking industry more efficient and competitive.

Guruprasad. M., (2011)\textsuperscript{31} in the paper “Indian Banking Industry – Basics to Basel” had mentioned in the paper that “adapting to Basel norms was something which the banks had to follow willingly or unwillingly. The main perspective of Basel norms is to improve the risk management systems of the banks as the banks aim for adequate capitalisation to meet the underlying credit risks and strengthen the overall financial system of the country. In India, over the short term, commercial banks may need to augment their regulatory capitalisation levels in order to comply with Basel. However, over the long term, they would derive benefits from improved operational and credit risk management practices. The suggested capital requirement as a positive for banks as it raises the minimum core capital stipulation, introduces countercyclical measures, and enhances banks’ ability to conserve core capital in the event of stress through a conservation of capital buffer. The prescribed liquidity requirements, on the other hand, are aimed at bringing in uniformity in the liquidity standards followed by banks globally. This would help banks better manage pressures on liquidity in a stress scenario. Undoubtedly the discipline of risk management has significantly altered the ethos of the banking as an economic activity. Banks should view the opportunities opened up by these complex financial instruments in the perspective of larger systemic interest. Today

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internationally, when market discipline is being considered an integral part of the regulatory framework, it is imperative for banks to realize that they are equal partners in ensuring financial stability; and this involves helping build up a risk management culture across all stakeholders. Any distortions brought about by misalignment of risk needs and the product being offered to address the risk can only harm and arrest the development of a healthy market.”

2.2.2 Studies in Foreign Perspective

Allen, L., (2003) in the “The Basel capital Accords and international mortgage markets: A survey of literature” had mentioned that the Basel 1 accord was revolutionary in its own ways in the banking sector. This new accord played a pivotal role in making the World Bank adopt the best practices not only this it made the banks follow an international norm thus bringing the banks of the world at the same platform. Further it is mentioned in the paper though the accord was one of its kinds and was drafted to strengthen the banking system but due to many loopholes it failed and paved the way to Basel 2 norms. The paper talks about various literature about the various aspects of Basel 1 accord with different authors having a different opinion. But one thing that can be made clear from all the literature reviews is that all the authors believed that a single norm is the best approach but they had doubt on the effective functioning of the same as they believed that there are loopholes in the systems and bank will take advantage of the same, which happened in due course of time and the accord failed.

Roy, V.P., (2005) in the paper “the impact of the 1988 Basel accord on bank’s capital ratios and credit risk rating: an international study” tried to study how G-10 banks complied with Basel 1 and whether they complies with it or not. The main reason stated to do this study was that after Basel 1 in Basel 2 standardized methods of risk calculations was adopted for creation of capital. it wishes to study the other countries attitude towards this capital creation is only US accepted the notion but others didn’t. To these issues the paper concludes that the impact of 1988 Basel accord was not uniform on all banks inG10 countries. It also concludes that though regulatory pressures were their but many nations did not comply to it. In all the


study presented that Basel 1 was mainly effective in increasing capital buffer and preventing banks from engaging in riskier activities.

In Tarullo. D.K., (2008)\textsuperscript{34} “Banking on Basel” it concluded that “Basel 1 was an accomplishment in itself. A group of dozen banks agreed to follow the same capital norms which were felt as a great step towards the stable capital adequacy norms. These rules were successfully accepted by not only the Basel group banks but 100 of other banks which were primarily not part of the accord. The rules were diligently enforced in various countries that its success is quoted as an exemplary case of transnational regulatory cooperation. But the topic also unfolds the political intentions of UK and US behind the accord. Where they presumed to eradicate competition while the competitors increased for them with the implementation of the accord. It does not mean that there were no short comings in the accord the strongest point against the accord is it provided relatively decreasingly useful supervisory window on banks operations and soundness both for supervisors and banks. The Basel 1 had its weakness but it cannot be denied that it was one of the most successful and welcoming international banking norm.”

Borchgervink. H. (2012)\textsuperscript{35} in his work on “Basel 1 floor-transitional arrangement and backstop to capital adequacy framework” for NOK Bank stated that “Under Basel 1 banks had a set of risk weights assigned that it had to use for calculations of risk/ Basel 2 also defined set of standardized risk that banks can use when they do not calculate risk weights internally. While when bank calculate its own risk weights the capital requirements can be more sensitive. While implementation of Basel in EEA (European Economic association) cautions were exercised in relation to change in risk weights so that the capital is not affected temporarily.

A very limited amount of literature is available on Basel 1 concept while majorly all the papers have comparative study of Basel 1 with others. But with the comparative studies available the researcher has drawn some pros and cons of the Basel 1 accord which we will be able to see in the last part of the chapter.


2.3 Research on Basel 2

2.3.1 Studies in Indian perspective

Hasan, M. (2002)\textsuperscript{36} “The significance of Basel 1 and Basel 2 for the future of the banking industry with special emphasis on credit information” concluded that the soundness of the banks is an important matter for the regulators. Basel 2 introduced a new approach to capital adequacy that are sensitive to the degree of risk involved in a bank’s position and activities and better measures the insolvency probability. Basel 2 brought in existence the two new pillars which helped to better understand bank risk profiles and adequacy of their capital options.

ICRA rating features in their report of march 2005 on “Basel 2 accord: Impact on Indian Banks” concluded that “ Implementation of Basel 2 will improve risk management system of banks as the banks aim for adequate capital convergence to meet credit risk and strengthen the financial system. In India the banks will have to raise additional capital to comply to the accord. However over the long term they would derive benefits from improved operational and credit risk management”

Tonveronachi, M., (2007)\textsuperscript{37} in the paper “Implications of Basel 2 for the financial stability of developing countries” stated that the setting up of Basel 2 accord in the developing countries may face certain problems the prominent of them can be the appointment of the supervisory authority with the adequate power as it may generate a power centre. Also it draws concern towards the countries whose macroeconomic conditions do not suffice to adopt the new norm, it says that the norms cannot be applied to those countries where the capital maintenance is a bigger problem to quote some of his concerns he stated that “Given its stress on regulatory capital, Basel II is particularly ineffective for developing countries where: a) The concentration and contiguity of real and financial capital renders capital requirements ineffective. b) The frequently experienced large shocks are not met by reasonable amount of banks’ capital. c) Liquidity may frequently be a more important requisite than capital in


order to avoid systemic crises. d) Following a prudential regulation approach, the attempt to prevent systemic crises by adding up several types of minimum requirements, and strengthening them, produces large and inefficient regulatory costs for banks.” The author concludes that the developing economies must reconsider the effect of the norms on their banking system and must cooperate with each other. The norms can be fulfilled by a completely developed institution while for developing institution it may be a tough task to follow the norms.

Prakash. A., (2008) covered the major development which took place in the banking sector along the acceptance of BASEL norms which were formulated for harmonization of the banking sector worldwide. Its stated in the paper that though capital regulations had existed in the banking sector in one way or another even before the BASEL’s came, But these norms came as a major mile stone in harmonization of the banking sector worldwide. It stated in the paper that the eight percent capital requirement of the BASEL 1 was accepted by nearly all the banks but with the time change and innovation in the business sector the deficiencies of the norms were seen and along with it was felt that a new and flexible method was required. The same came into existence in 2004 with the release of BASEL 2 accord, while the implementation of the same was still in process the world faced the adverse effects of Sub Prime crises of US in 2007. It was decided to fasten the implementation of BASEL 2 at that time and it was also felt that certain new amendments are required in the existing rules so that the banks adopt their traditional role of shock absorber of the financial system, rather than just behaving as an amplifier between the financial sector and the real economy. The effects of the 2007 crises were so vast that its effect were seen into the international market and it was felt that a stronger norms were required to curb such situations in future. The issues being re-examined include inter alia strengthening the risk capture on trading book and off-balance sheet exposures, dampening procyclicality, strengthening framework to assess liquidity at banks, and globally coordinated supervisory follow-up exercises. The Basel framework on capital regulation thus continues to evolve in response to the changing circumstances, and has come to be established at the core of the assessment of soundness and stability of the banking system.

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Balin. B.J., (2008)\textsuperscript{39} in the work “Basel I, Basel II, and Emerging Markets: A Nontechnical Analysis” has drawn attention towards the fact that how both the accords were not for the developing countries and how they were prepared keeping in mind the G-10 nations. The author criticizes the very fact that the accord overlooks the fact that the most of the public and private organization which are truly international are making the emerging economies banks to accept the norms. This has put these economies in fix whether to adopt the norm and face the problems that come on its way in relation to capital regulation and loan spread or whether to cut off from it and along with it close the roads for international capital. The author has advised that in the formation of the new norms the emerging market economies must be considered as any how they need to follow the accord. Along with it the author has also drawn attention towards the tough language of the draft that is not understandable by many and thus giving the leeway to interpret the same in the way convenient to them.

Oracle in its white paper on key challenges and best practices for Basel 2 implementation published in 2009 stated certain key challenges banks will face in implanting the norms from the point of view of IT department. They have said in their paper that the new capital requirements, ICAAP reporting will require a smooth IT system to promote it. As is known that improvement in IT system is one of the main parameters of implementation of Basel 2 accord it is but obvious to have a special focus on it. They have jotted down the challenges that implementation of accord will face due to IT are multijurisdictional reporting, data availability and quality services, solution completeness data transparency, solution stability and business intelligence.

Sinha. R., (2011)\textsuperscript{40} in her work on “A perspective of Basel committee-2 recommendations on Indian banking Sector” observed the following impact that Basel 2 had on Indian banking sector:

i. It provided flexibility to the regulatory body to specify risk weights and it can be different from the accord.

ii. Retail exposures gets rated at lower 75% according to RWA given by RBI


iii. Basel 2 provides Indian banks the opportunity to significantly reduce their credit risk weights and required capital.

iv. Basel 2 also explores how to work on other area of risk under the Indian bank can exploit the fact that they have a large short term portfolios in the form of cash credit, overdraft, working capital, demand loans which are currently unrated.

Pasha M.A. et.al., (2012)\(^{41}\) in their work “Basel 2 norms with special emphasis on capital adequacy of Indian banks” concluded that “Indian banks have adhered to 9% CAR to ensure proper capital adequacy. In fact it can be said that Indian banks maintained CAR above the minimum level keeping in view various credit risk. Though there is lot of heterogeneity amongst the banks on various aspects banks are encouraged to maintain a minimum CAR.

Balasubramaniam. C.S., (2012)\(^{42}\) had stated in the paper that thought the Indian banking system is strong but the RBI decision to implement BASEL 2 norms by 2017 in all the banks in India can overburden many weaker banks. It is understandable why the RBI is in hurry for implementation it’s forcing to adopt the norms even before the implementation of BASEL 2 in many banks. Before 2007 the US and European banks were also not seriously concerned with the BASEL norms but they are forced to comply with the rules due to international pressure. The BIS is currently concerned with the effect of NPA and banks hiding the facts about the same. More than four years after the financial crisis began, it is so widely accepted that many of the world’s banks are burying /hiding losses and overstating their asset values ,even the BIS is saying so- in writing. The transparency and credibility of banks is creating a vicious circle but in India due to high control of RBI on the banking system this kind of position is still not prevalent though we are lacking in technology for the implementation of BASEL 3 from the Public Sector Bank point of view but the Private Sectors Banks are ready with their high capital adequacy ratios, enhanced proportion of common equity and better IT and other modern financial skills of the personnel, are well placed to comply with BASEL 3 norms in general. PSU banks although dominant banks in the Indian financial system may take more time and face challenges in following the Basel III guidelines.


\(^{42}\) Balasubramaniam, C.S., (2012), Basel 3 Norms And Indian Banking :Assessment And Emerging Challenges, ABHINAV: National monthly referred journal of research in commerce and management, 1(8), 39-52
Banerjee, S., (2012)\textsuperscript{43} in her work titled “Basel 1 and Basel 2 compliance: Issues for banks in India” had concluded that “The Basel Accord or the mandatory maintenance of a minimum capital against deterioration of asset quality is a watershed in the history of central banking. It has special significance because of its validity across borders for all banks from countries who are signatories. The Accord’s significance can hardly be overstated, yet the banks in the western hemisphere managed to cause such upheavals from which the world is yet to recover. The regulatory arbitrage that was spawned post Basel Accord is beyond the scope of this paper, but the banks in India who complied have fared well. Yet the literature on Basel I and Basel II has focused on the macroeconomic implications of this vital agreement among central bankers, and has largely ignored the microeconomic perspective. This paper examines how commercial banks operating in India within different ownership have complied with the capital risk adjusted ratio. To examine the strategy banks have adopted to comply with the regulatory capital while balancing their profitability and prudential restrictions, this paper implements a random effects panel data model with balanced panel data. As Basel I focused on credit risk, the econometric analysis for the commercial banks of the three different types is undertaken for credit deposit ratio, return on assets, credit risk weighted assets and capital with CRAR as the dependent variable. It is interesting to observe in the case of public sector banks compliance was influenced by the profitability criteria ROA, business expansion criteria CDR and the risk elements credit risk weighted assets and capital. The private sector and foreign banks on the other hand appear to be guided more by the risk in their loan portfolio which appears intuitive.”

2.3.2 Studies in Foreign perspective

Illing , M., et al (2004)\textsuperscript{44} in the paper “ Basel 2 and required bank capital” said that the central idea of Basel’s first pillar was to increase the sensitivity of bank capital to the risk associated with specific classes of financial assets. To this end Basel 2 offers banks two potential approaches for calculating required capital the standard approach and the Internal Ratings based approach. The later is divided into the foundation and advanced approaches. The major


Canadian banks provided they meet regulatory requirements, are most likely to adopt advanced IRB approach.”

**Liebig, T., et.al.(2004)** in their work on “How will Basel 2 affect bank lending to emerging markets An analysis based on German bank level data” have drawn the attention towards the cost of lending. The paper is drawn on the concern that will the new banking norms let the bank lending unaffected. The author has done a regression analysis of the same assuming two situation the if the regulatory capital requirements remain below the economic capital and banks economic capital to emerging markets already exhibits risk. The author has further said that the new norms were a welcome move from the point of view of developing economy. The authors concluded that the new accord i.e. Basel 2 will have a lesser effect on the bank lending and along with it regulatory capital will now be lien with the economic capital. And the cost of lending will not be high, thus will not affect the banking system negatively.

**ECB bulletin (2005)** in their article on “The new Basel Capital accord: Main features and implications” have mentioned that the main purpose of Basel 2 was to address the major shortcomings of the previous accord. To which Basel 2 introduced more systemized measures and a new framework. The main aim of the framework was to reduce the scope of capital arbitrage and to make more accurate provisions for the effect of risk mitigation measures. In addition it covers operational and market risk. The new accord takes care of capital needs in relation to all the risk that is associated with the banking system.

**Rymanowska. P., (2006)** in her comparative study on BASEL 1 and BASEL 2 concluded that BASEL 2 took into consideration all the factors that were missed by BASEL 1 and presented as a better method for bank regulation but then also it lacked at many points. Its

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stated in the paper that in all case BASEL 2 is a better regulatory framework than BASEL 1 but is has its own lacunas and BASEL committee needs to work on them. But till the measures are correct for all financial institutions it will be commonly implemented but time will come which will affect the banking system due to the shortcoming of the norms. That is what we witnessed in 2008 when certain large sector banks collapsed, though the norms were tightly followed.

**Herring, R.J., (2007)**⁴⁸ in his paper tried to study the effect of BASEL 2 on the US banking. His emphasis was on the fact that why BASEL 2 was a tough call for the US Banking system and why they lagged by two years in implementing the same. The paper states that in US the Management of the financial institution is responsible for the maintenance of the capital and even responsible that the financial institution may not turn out to be bankrupt. They had adopted the technique where they paid the minimum cost to the deposit insurance fund to avoid the risk of insolvency of the institution. The FDIC in this case was responsible for the solvency of the financial institutions and it argued for the additional measures of safeguard. This can be said was one of the reason for lagging the implementation of BASEL 2 in the US as banks in the US were solely responsible for the cost they had to incur for implementation of BASEL 2 norms as they cannot pass it on to anyone in the form of tax as happened in other countries. Regrettably the implementation was more delayed for finding a lesser cost option that can help in achieving the same result of less impact on financial stability. They advocated that the Pillar 1 must be adopted but the rules of Pillar 2 must be softened and the supervisory authority can force the institutions to adopt stricter measures for capital adequacy instead of implementing all the rules of Pillar 2. But till all this could have been done the time for the banks ran off and their came the biggest setback in the form of Subprime crises which further elaborated the deficiency of the US financial institutions. This thing shows that BASEL norms are something that can affect the developing and developed economy both. Now the time for BAEL 3 norms we need to study how the same is going to affect the Indian Banking. Further let’s see what different authors have view on implementation of BASEL 3 norms in particular with the Indian Economy.

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Elizalde. A.,(2007) in working paper on “ From Basel 1 to Basel 2: an analysis of the three pillars” “The author says that audit and supervisory review are the prudent ways to see that the accord is implemented. Rating based supervisory and regulatory measures reduce banks risk taking incentives, and this reduction is higher the higher the rating levels considered. With rating system we are throwing or must say avoiding important information. If the rating levels used by rating agencies are increased it would benefit the depositors. Collapsing the information about financial situation of the bank into a discrete system of ratings help in the implementation of rating based policies and in the diffusion of information to the market. The optimal number of ratings and the cut off capital levels differentiating them requires an objective function for the supervisors and a measure of the costs and benefits of the previous trade off. The author further quotes that the proposed framework allows one to analyse any rating based measure and therefore can be used to evaluate any new one. A rating based deposit insurance premium policy will be equivalent to the rating based market discipline mechanism.

Mathews. B.C., (2009) in his article on “Basel 2 failure highlights need for regulatory rethink” had stated that the days for the Basel 2 were long gone but the politicians and the technocrats who invested in it were not ready to accept the same as a big amount of capital has sunk in the implementation. The author says that acknowledging the reality that the accord has failed and crafting regulatory capital tools that acknowledge the new accord are better to be accepted so that banks can progress on the new ways. The author emphasise on the fact that for many a things Basel 1 was sufficient to handle the issues and protect the banking system but the loopholes were covered in Basel 2 accord but the new problems came in for which Basel 3 is proposed and its high time banks must accept the same.


covered India as one of the case. The author had stated that the predecessor India is accepting Basel 2 accord. In 2002 only the Indian banks were given instructions to make arrangements in next 5 years as per the accord. Indian banking had upgraded itself to that level. The things to take note of Indian banking sector are such as 1) the capital regulatory ratio is 9% which is higher than prescribed in the accord. 2) Conservative methods are followed for minimum capital requirements while 3) comprehensive guidelines are issued for the implementation of Pillar 2 of the accord. If Indian banks are covered under the Basel norms the banks are almost ready to adapt to changes but still there are some road blocks such as less number of credit rating agencies which will hinder its path towards the implementation of the accords.

Atik. J., (2011)\textsuperscript{52} in the paper “Basel 2: A post crisis post mortem” had concluded that Basel 2 was bit underpowered to avoid crisis. The author says that “Basel 2 most serious deficiency may be its contribution to the climate of invincibility which was a key element in producing the financial bubble.” He also states on the study that the subprime crisis became the major failure of the accord. As the accord provided free hand to the banks to decide on the regulatory capital and also to decide on lending, it allowed banks to do its self-assessment of riskiness.

Danila. O.M., (2012)\textsuperscript{53} had stated in the paper” Impact and limitations deriving from Basel 2 within the context of the current financial crisis” that the banking system has lacked the resources and outlook to deal with the sub-prime crisis. The author has stated many reasons which worked together to fail the Basel 2 accord such as relaxation in the financial market safety nets, relaxed capital margins, large inflow of foreign funds etc. Relaxation in safety nets had already shown its effect in the first half of 2007 by second half collapse of banking giants like Lehman Brothers pave the way to the financial crisis. The onus of the crisis setting in lies on the soldiers of Basel 2 norms where it gave banks the freedom to take important decisions on their own and bank leveraged their position. Basle 2 accord though presented a better prospect than the Basel accord by adhering various issues such as capital adequacy, market supervision etc. but it overlooked factors like macro variables, procyclality, liquidity etc. along with it the accord highly relied on the external rating, leaving internal rating or


must say no consideration was given to internal rating, which paved the way to systematic risk. Thus the author says that though the accord was much properly drafted than the previous one but it had its own loopholes which paved the way to crisis and hence led to the failure of the accord.

**McAleer. M. et al (2012)** in their work Has the Basel accord improved risk management during global financial crisis? said that “with the advent of Basel 2 norms and change in calculation of risk at VaR, alternative risk models are formulated to minimize daily capital charges. The authors have suggested an idea of constructing risk management strategies that used various models for forecasting VaR. They also observed that an aggressive risk management strategy yielded the lowest mean capital charges and had the highest frequency of minimizing daily capital charges. On the other hand a conservative risk management study would have a corresponding higher mean daily capital charges. A risk management strategy that used combination of alternative risk models for predicting VaR and minimizing daily capital charges namely the median was found in McAleer et al, other works.

**Yeh .A. et al (2012)** in the article on “Basel 2 A new capital framework” concluded that “Bank capital is the main contributor to the efficient financial system. The author says that Basel 2 capital framework provides a new and improved way of risk management and measurement of capital adequacy. The 3 pillars will strengthen the New Zealand banking system more prominetly. The reserve bank of New Zealand is responsible or setting banks capital requirements and implementing the new accord in the country. The four largest banks of New Zealand being owned by groups based in Australia and to serve its motive to keep these banks strong APRA wishes to work in close coordination with Reserve bank of New Zealand in the implementation of the accord in the country.

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2.4 Research on Basel 3

2.4.1 Studies in Indian perspective

Rohit V. M. et.al.(2012)\(^{56}\) in their white paper for Infosys had talked about Basel 3 had stated that Basel 3 had tried to plug gap identified in Basel 2. Basel 3 is the answer to the 2007-08 crises in the financial sector. It is aimed at strengthening individual financial institutions as well as the overall financial system by eliminating the weakness present in the previous Basel accord. The banking system will be evolving in the fast technological environment and will require fast models to adopt technology. It is therefore imperative that Basel 3 implementation is planned and designed with a higher degree of scalability to support future changes in regulations. Basel 3 implementation should be taken as an opportunity to to remove a silo based approach to risk management and move towards a reliable and scalable enterprise wide risk management system.

Sahu.V, et.al., (2012)\(^{57}\) in their thought paper for Infosys titled “Basel 3 challenges: operational data store defines a solution” had concluded that implementation of Basel 3 framework will pose many challenges on banks. With capital, risk assets and liability restrictions along with increased cost and shorter reporting cycles, banks will have their jobs cut out to maintain margins and profitability. The paper says that an early move can make the transition easy for any bank may it be in case of calculation or technical upgradation.

Parmeshwara, (2013)\(^{58}\) in his paper on “Reserve Bank India and Basel Norms” has showed that how RBI is taking proper steps in implementing the accord. “Implementation of Basel 2 had been described as a long journey rather than a destination by itself” RBI played the pivotal role during this journey by taking a consultative approach. While implementation of Basel 3 is based on countercyclical impact on the developed countries. This need not mean that if it is so followed it will not have a negative effect on the economy. This is done by RBI

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\(^{58}\) Parmeshwara. (2013), Reserve Bank of India and Basel Norms. PARIPEX-Indian Journal of Research, 2(4), 49-52
by making the norms of the accord closely coordinated with the monetary policy of the country.

Roy. D.G., et.al.,(2013)\(^{59}\) have done a comparative study and studied the journey of Indian banking from Basel 1 to Basel 3 accord. They have mentioned in their paper that banks are open to credit and market risk which Basel committee tried to cover with the standardized capital adequacy ratio but in all that overlooked the impact of operational risk which became the biggest road block and to cover that Basel 2 was introduced along with the cover to all the three risks it also gave flexibility to the banks to match the risk management level of the banks. But this flexibility became the major curse for the banking sector. In India though RBI maintained tougher rules than the Basel accord but in other developed countries the flexibility in asset management created a big problem. A few of the major problems were high leverage, asset liability mismatch and liquidity crunch. To solve these issues in 2010, Basel 3 norms were introduced with liquidity Coverage Ratio, Counter Cycle Buffer, Capital Conservation Buffer and Leverage Ratio. The paper emphasis on the fact that there are four factors on which the Basel 3 is enhanced over Basel 2 these areas are (i) augmentation in the level and quality of capital; (ii) introduction of liquidity standards; (iii) modifications in provisioning norms; and (iv) better and more comprehensive disclosures.

Goel. S. et al., (2013)\(^{60}\) in her work on the topic “Basel 3: An enhancement of Basel 2 norms” states that the crisis of 2008 paved the way for the new Basel accord in the year of 2010. The major reasons for the new accord were the improper condition of the banks of the developed countries. After the subprime crisis a tough regime was set up to understand the failure of the banks of developed countries during that time it was found that these banks were undercapitalized, overleveraged and had greater dependence on the short term funds as they had used the loop holes of self-regulation of the Basel 2 norms. The older norm was felt insufficient to curtail any further risks so for risk mitigation the new norms were brought in i.e. Basel 3 the main aim of this was to strengthen the trading books of the bank by making it more capital intensive. The guidelines aimed to more flexible banking regime by focusing on four major parameter i.e. capital, leverage, liquidity and funding. For Indian banks the

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implementation of the norms started from January 1, 2013 in phased manner. RBI the controlling authority in India is issuing guidelines from time to time for the smooth transition of banks. The author observes that the new accord enhances the bank-specific measures and includes macro prudential regulations to create a more stable banking system. The author concludes that the new accord stresses on reducing risk arising from financial and economic stress whatever the source, improve the risk management and governance system and strengthen the banks. The Banks will require to further raise their capital in the future but the banks of India are well placed as the norms prescribed by RBI are more stringent than the one prescribed by BIS. In India the concern is towards the PSU banks as private banks are well placed to follow the new norms but PSU may face some road blocks, but in any case Indian banks are ready for the new norms.

Shah. M., (2013)\(^{61}\) has studied the implementation of Basel 3 on the Indian banking where she has mentioned that on one hand where the capital of the banks will reduce by 60% due to phased removal of certain components of capital from Tier 1. The risk weight age will grow by 200% this two side pressure will affect the profitability of the baking in India. Along with that the long term liquidity requirement will reduce the profit margin more and will grow the cost for the bank. She has mentioned in her paper that a balance is required to be maintained in the lending and borrowing cycle of the banks for the smooth functioning of the banks. The leverage ratio of Indian banks is moderate, and hence, not a cause for concern. However, with capital dilution, increased risk weightings and ceilings on derivative trading, the new leverage ratio will impact the lending capability of the banks. As India is a developing economy, the shrinkage of bank credit can set in recessionary trends. Further, the developmental agenda of the Indian banks will take a backseat in such a situation. While systemic stability is welcome, it cannot be at the cost of the larger economic goals of poverty alleviation, employment generation, priority sector lending and balanced regional growth.

Jain. M., (2013)\(^{62}\) in his paper critically analysed the implementation of Basel 3 norms on Indian PSU banks and had tried to understand its effect on them. He had said in his paper that on one hand RBI has extended the date of implementation of Basel 3 norms on the other hand the capital requirement is now reduced to 20% which will give a relaxing situation to the PSU


banks and also time to phase their activity. But then also the road is not smoother ahead, RBI wants to implement the accord to make the financial system safe. Moreover, the 'perception' of a lower standard regulatory regime will put Indian banks at a disadvantage in global competition. Also it’s been observed that the PSU banks may suffer a lower profitability as it needs to raise Rs. 5000 trillion to meet the Basel 3 requirements. The government could consider reducing its majority stakes in a variety of state-owned banks, as it attempts to cut the Rs. 900 billion in recapitalization, needed to maintain present shareholding levels. Indian government has so far rejected suggestions that it might reduce its shareholding in more than two dozen public sector banks, including a stake of approximately 60% in the State Bank of India, the nation's largest lender by market share. The RBI governor had in the recent past suggested that the Indian government could save Rs. 200 billion in recapitalization costs if it reduced its stakes in all state-owned banks to just 51 per cent. Barthwal. V.V., (2013)\(^{63}\) had concluded in the paper that though the implementation of the Basel 3 norms is beneficial in the long run and is a required step to maintain the security of the banking system but initially it’s going to cost a lot to implement the same. The paper reinstates the fact that the profit of the banks will be squeezed with the implementation of the norms and a requirement of fresh capital will be felt to completely implement the norm. Though the Indian banking is strong to deal with the pressure but still it need to find out ways for new capital infusion especially in the case of Public Sector Banks where the major shareholding is that of the government. RBI director prior also has suggested the government to reduce its share capital in the public sector bank so that the transition can be easy and smooth.

Pasha. M.A., (2013)\(^{64}\) in his work on “Basel norms and Indian banking Sector” has recommended that “the banks must develop their internal method of calculation and must rest the same using some past data’s. The technology development to meet the accord is till at a very primary stage which needs a fast upgradation. It development and employee training can support a smooth transition.”

\(^{63}\) Barthwal, V.V. (2013), Basel Accords & Their Implications on Indian Banks: An Evaluation. *International journal of innovative research and practices, 1*(3), 11-18

Mirchandani, A. et al., (2013) have concluded in their paper “Basel 3 Implementation: Readiness of Public Sector Banks in India” that the PSU banks are currently ready and are in position to maintain the CRAR of the Basel 3 accord. But with the phased development of the new accord it is possible that these banks may require new capital infusion. As the focus will be shifting from capital to tier 1 capital, in current situation bank will be able to even achieve its credit growth of 16% but with more emphasis on Tier 1 capital banks may have to think for means to add capital. “Equity requirement up to March 31, 2018 is Rs 1,43,000 Crore and the overall capital requirement is Rs 4,25,000 Crore, Anand Sinha, Deputy Governor of RBI told CNBC-TV18” some critics are telling that this is undervaluation and the banks may require more funds than this. Considering the CRAR position the banks are in no haste and it has 6 years to reach the required change amount. Banks also need to exercise proper control on NPA if they wish to continue business in the long run.

Dhar, S.K., (2013) in his paper “Basel Norms: A Paradigm Shift In International Banking Regulation, Supervision And Control” stated the following impact of Basel 2 implementation on the Indian banking system and how it affected the Indian banking by and large: “1) changes in capital risk weighted assets ratio 2) high cost for upgradation of Technology 3) Rating Risks, 4) improved risk management and capital adequacy, 5) curtailment of credit to infrastructure project, 6) preference to mortgage credit than consumer credit lower risk weight to mortgage credit, 7) huge It spending”. The author has enumerated that how the implementation of Basel 2 had a long lasting impact on the Indian banking industry and it changed the complete picture of the Indian banking industry. The change in the CRAR made the industry go strong along with it changes in the rating of the loans made it more feasible to lend to the developing industries.

Bisht, P. (2013) in her paper titled “ Basel norms and an analysis of banking Risk; Performance and future prospects said that “ looking at the features of Basel3 it can be said


that it provides better safeguard to the banks against any losses that may arise due to credit risk as well as cyclical behaviour of the macro economy. While the 2.5% liquidity ratios may create problems for some banks in India in the time of political and social economic unrest. Along with it maintenance of buffers in addition to capital reserves also drains out funds from the banking industry thus operationally making them un available in long run. The study says that credit rating for Indian banks must be carried out by autonomous bodies like ICAI. An autonomous credit rating institute must be set by them on the same scale as current rating agencies are doing it. In all the proper perseverance on the need of systematic credit risk assessment module is increasing.

Makkad. M., et al (2013)\(^68\) in their work on “Risk management in commercial banks: A perspective on Indian and global banks” covered points like “Are Indian banks prepared for migration to Basel 3 regime?” “Are the Indian banks geared up for transition to the international reporting system?” “Interconnectedness in the banking sector and vulnerability of financial system had observed that for the first question almost all the Indian banks are prepared for the new capital rules in the terms of quality and quantity as due to various rules that are already in place the Indian banks are already ready. Other than that on the front of buffers and liquidity ratios also we are well placed. While the next observation is IFRS is such a solution for which each and every member at various level of bank requires a specific training. The major issue with Indian banks in the transition is difference in IFRS will bring Indian banks on global platform still we are not ready for transition. The last observation is that RBI is in process to put in place an effective system of macro prudential surveillance of the financial system. The analysis of both the sector revealed that there is a high degree of interconnectedness between the Indian banks and Financial system. The paper concludes that the proactive role of RBI has been commendable in abetting risk from hitting Indian banks.

Agarwal. V. et.al (2014)\(^69\) in the review on “Basel 3: comparison of standardized and advanced approaches” for Capgemini have concluded that banks will have to face risk head


on. The new method of calculation of risk given in new accord will make it more detailed and clear. One must no doubt evaluate the cost and benefit ratio in moving from standardized to advanced approach. The author clearly states that the banks must look at the larger picture to decide and control the capital. The new IRB approach is better in many aspects. Also Basel 3 capital requirements need to be measured more clearly than the previous accord as it has direct effect on various other ratios. No doubt that bank will have to incur higher IT cost for the implementation but it will help banks in maintaining data at a higher level.

Sikdar, P., et.al., (2014)\textsuperscript{70} in his paper on “Shift from Basel 2 to Basel 3 a reporting perspective on Indian Banking sector” concluded that “Basel 2 was a paradigm shift from traditional banking to modern sophisticated banking for the Indian banking industry. RBI wished that Indian Banks adopt these norms to enhance the soundness and stability of the financial system,. All the Indian banks complied with the directives given by RBI and accepted the credit rating policies implemented RBI and started to get it done through RBI prescribed agencies. Along with it almost all banks appointed separate people for this risk management work. The process was left completely independent and no authority was given any right to say anything to the people of this department. When compared to Basel 2, Basel 3 aims to improve banking sectors ability to endure long periods of economic and financial stress by laying down more rigorous and stringent capital and liquidity requirements for them. These accords are so designed to provide better ability and transparency to the current banking system. RBI is taking appropriate measures to move in this direction in phased manner.

Chakrabarti, S. et.al. (2014)\textsuperscript{71} in their work on “Basel norms implementation with respect to Indian Banks: A critical review” had said that the effective and proper implementation of Basel 3 norms will further strengthen the Indian banking sector. The banks that are currently working on standardized approach will further go ahead and work on advance approaches. The author states that “A change in perception to seeing the capital more efficiently framework as pre requisite instead of compliance function for keeping banks sound, stable and profitable is important. It provides deeper and more broad based capacity in risk

\textsuperscript{70} Sikdar, P and Makkad, M. (2014), Shift from Basel 2 to Basel 3 – A Reporting Perspective on Indian Banking Sector. \textit{IJCEM International Journal of Computational Engineering & Management} 17(1), 35-41

management and ensure adequate and good quality data. It does not mean that the transition will be smooth for sure there are challenges that the Indian banks will face, such as stricter capital definition, increased quality of Tier 1 capital. Elimination of Tier 3 capital etc. which will not make the road smooth. The transition will require time and proper supervision. Thus it is concluded in the paper that adoption of Basel 3 accord will improve quantity and quality of capital of Indian banks, with stronger supervision, risk management and disclosure standards. The accord has proposed very important ratios and steps which will strengthen the banking industry such as leverage ratios, capital buffers and the proposal to deal with procyclicality through dynamic provisioning based on expected loss.

Datey, R. et al. (2014)\(^{72}\) have mentioned in their work on “Basel 3 norms and Indian banks—A new definition of risk management”. “That the impact of the Basel 3 norms on Indian banks can be seen from 4 different perspectives which are as follows:

1) Impact of capital adequacy norms on Indian banks: The Indian banks are well placed on the capital till the margin mentioned by BIS are concerned in specific the private and the foreign banks but with PSU there are some issues as they require a new infusion of funds it is to be seen from where they will rise this capital as the major stake holders in these banks are government and it is presumed that either government will infuse new funds or their will be amendments in Tier 1 and Tier 2 capital of the banks.

2) Impact of Leverage Ratio on Indian Banks: Till this new ratio is concerned the Indian banks are already maintaining SLR. Only problem with it is that SLR considers only moderate risk while market risk and leverage ratio. The tier 1 capital of most of the Indian banks are well placed and these banks also do not hold to large position in derivatives hence the situation in relation to leverage ratio in Indian banks by far are in control.

3) Impact of Liquidity risk management on Indian Banks: Indian banks to fear up in this area. If proper and transparent steps are not taken for mitigation of risk the effects can be devastating. The banks need to see that they have enough HQL to meet the next 30 days requirements. The scenario thus can follow a situation where in there is a partial loss of unsecured wholesale funding capacity, partial loss of secured short term

financing. Increase in market volatilities that impact the quality of collateral, potential need by banks to buyback debt or honour non contractual obligations, etc.

4) Impact of counter Cyclical Buffers on Indian banks: The author says that the concept is good but operationalizing the same is bit tough as it will require to redefine the business cycle to global business cycle which itself is not globally synchronized. With Indian banks the setting up of the variables for the buffers will also require a lot of work. The setting up of indicators in an economy like India will be a tough task which is the prerequisite of the ratio.

Thus we can say that the new norms will have a long lasting effect on the Indian banking system, to some part of the norms the banks will be able to adapt easily while it will require an extra effort to comprehend with some.”

Fatima, N., (2014). In her work on “Capital Adequacy: A financial soundness Indicators for Banks” had concluded that “Capital adequacy is an important parameter for judging the strength and soundness of banking system. Banks with reasonable CRAR can absorb the unexpected losses easily and their cost of funding is also reduced which ultimately improve the profitability of banks. The given study revealed that top Indian banks are maintaining adequate level of CRAR. The private sector banks as per the study are in good potion as compared to public sector bank in relation to CRAR one of the most important aspect of Basel 3 norms.”

Hazarika, D. et al., (2014). In their work “Dissecting Basel 3 by geography” have said that the new accord suffers a major problem from the point of view of the developing economy i.e. with the implementation of the leverage ratio it will made mandatory for the banks led at a certain level of risk only, the developing economies will not be allowed to make the finances on their own wish. Also flow of international fund may stop to some of developing economies due to their rating. Though these economies are ready to face such a situation with their high tier 1 capital base but the norm will affect the industry by and large.

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Accenture., (2015).\textsuperscript{75} have stated that 2008 crises made the banks go down on all fronts while liquidity played a major role in the same. In the new accord i.e. Basel 3 a new dimension is added which specially deals with liquidity risk. Under it banks need to see that they have enough liquid assets to meet the next 30 days requirement. Prior where the investment decisions by banks was mainly concerned with income due to advent of LCR now the same has become a multi-dimensional process where in a possible investments needs to see the dimension of marginal impact of investment with respect to an increase in HQLA position, loss of earnings or opportunity loss, capital consumptions etc. Thus one can say that introduction of LCR has made it more tough for banks to take investment decisions. The work concludes on the note that “organization are encouraged to take steps to understand the possible implications of LCR requirements and their linkage to capital held to cover other risks, as well as balance sheet components and the earnings related to these requirements”.

Manish. et al., (2015).\textsuperscript{76} had concluded in their paper on “ Basel 3 and its implementation” that the accord on the front hand is appearing to be tough to be applied to the Indian banking industry due to high capital requirement but the same will be beneficial in the long run for the whole banking industry. It will function as a precautionary approach to make the banks able to face any stressful situation and will prepare them with reserves to meet the same without affecting the depositor’s interest. RBI has always remained stringent and conservative in the setting the capital standards for the Indian Banks as compared to the international banks. The phase-in implementation of the accord will impose lower capital burden in early years and higher capital burden in later years. Also, the extended deadline of its full implementation will provide banks some extra time to raise capital and to be Basel III compliant.

Barua. R. et al., (2015).\textsuperscript{77} in their work on “Basel Regulatory Capital Norms: Impact on Commercial Banks in India” have concluded that the PSU banks are currently in a situation where they require a huge amount of capital injection according to the announcement done by government an amount of Rs. 6900 crore will be added to the capital of the 9 PSU banks by


the government to make their position strong in case of capital. many PSU banks are looking towards the equity market to raise additional capital but it is seen that the banks will face a problem in this as the market is currently in the shares can be issued at the discounted cost and various other structural issues are also there. Thus making the option tough to access. The best way for the PSU banks to come out from this problem is to look inside the bank for the solution wherein they can increase the interest margin and can lower the operational cost. The focus of the banks management must be on increasing the profitability of the banks and reducing the operational cost of the banks. The quality of asset portfolio of PSU banks need to be strengthened substantially through effective appraisal backed by efficient monitoring of the assets. The banks need to do an effective capital planning to effectively manage the impact of the Basel 3 requirements. Long-term view for capital budgeting needs to be taken and additional equity and non-equity to be infused well in time to consolidate capital position. It is observed that the PSU banks are the main players in the credit market with over 70% of share of the total credit supply to the economy. If the banks think to increase the cost of lending it will make the loans costlier and thus will have a negative effect on the growth of the economy. The solution to this is that the PSU banks diversify its portfolio of lending. It is currently observed that the PSU banks are the main lenders to the big corporates and in that also a large amount is given to the telecom and infrastructure sector. While the retail segment is very less in these banks. The retail lending is almost negligible it is suggested to these banks to diversify their loan books by giving weight to retail lending. Along with it bank need to work on its risk management system to mitigate the systematic and unsystematic risk arising due to various forces working in the banking sector.

Kumar S., (2015)\textsuperscript{78} carried out a survey on “Awareness of Basel 3 norms across Indian banks: An Empirical study based on Ambala and Chandigarh” he has observed in this survey that Basel 3 norms that are going to be the main part of the Indian banking system are not properly known to the employees of the banks or can say that they do not have complete understanding about the same. He also observed that the respondents lacked information about operational risk. The respondent believed that the implementation of the norm will be advantageous to the banking system overall.

2.4.2 Studies in Foreign perspective

Wignall . A.B. et al., (2010)\(^{79}\) in their work on “Thinking beyond Basel 3: Necessary solutions for Capital and Liquidity” identified the main reason of crisis that had hit OECD as “i. It is too big to fail institution took large risk which was driven by new innovation and took advantage of various tax flaws and did not construct any feasible leverage to deal with the situation. ii. Insolvency of the bigger borrowers left banks with no capital to deal with the situation. iii. Lack of regulatory and supervisory intervention is also stated as one of the reason. iv. Lack of government initiatives in helping to identify and remove the insolvent firms. How do the Basel III proposals bear on these issues, in the sense of helping to ensure that the chance of another crisis like the current one can be greatly reduced? The Basel III capital proposals have some very useful elements – notably the support for a leverage ratio, a capital buffer and the proposal to deal with procyclicality through dynamic provisioning based on expected losses. Adopting the buffer capital proposal to ensure the leverage ratio was not compromised in crisis situations seems especially important – so that in good times, dividends, share buyback policies and bonuses would be restrained as necessary to build back buffers used up in bad times – seems very important.”

Shenoy. A.V. et. al., (2014)\(^{80}\) in their work on “Basel Banking Norms – A Primer” concluded that “The main aim of the Basel banking norm is to create a global banking perspective. With the aim to make a more active and protected banking system. The banking in the world over is so homogenous that it is said to develop local expertise showcase on a global platform, so that the banks use their local knowledge to beat the global competition. National Competencies were checked at the global level along with it the banks were made to be competent at the world level but developing their banking system to sui the requirement of the bank. Banks are trying to adapt to the norms in a coordinated manner as there are countries which are having banks which function in a heterogeneous method though being part of the same banking system.”

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Kubat. M.,(2014)\textsuperscript{81} in his work “ Does Basel 3 bring anything new? A comparison between Capital Accord. Basel 2 and Basel 3” states that the reason for this thought to pop up is the time from of initiation of Basel 2 accord.it is an evident fact that Basel 2 was implied at the time of financial crisis and that was the reason why with the implementation of the same new accord i.e. Basel 3 structural work started. The author says that there are some differences in the accord on the fronts like two new buffers are added. Capital definitions more clear, the capital conservation buffet and counter cyclical buffer add a new dimension to the accord. Also the leverage ratio and liquidity ratio brings new tools. What remained same or differed only a bit is the risk coverage part.

Ayadi. R. et al., (2015)\textsuperscript{82} in their paper to IMF on the title “Does Basel Compliance matter for banks performance” have critically evaluated the effectiveness of the compliance on the banks performance. They concluded that neither does compliance nor any part of the compliance had any relation with bank efficiency. They say that although compliance has negligible effect on the efficiency of the banks but an augmented control and stringent norms may not allow the banks to effectively allocate the resources. When only banks in emerging market and developing countries are considered, the author fond proof of a negative relation with certain points that relate to the effectiveness of the existing supervisory framework and the ability of supervisors to carry out their duties. They criticize the accord on the aspect that on one hand they are considered to be the international norms while on the other they have not considered various aspects of the banks of the developing economy. The author also sates that there are chances that as the author has not considered all the banks of the developing economies there might be some variation in the result but in any case the norms lack the vision to support the banking of the developing countries. As according to the norms of the accord the banks need to maintain a high amount of CARA which will drain their resources available for lending.


Fratianni. M. et al., (2015)\textsuperscript{83} in their work on “Basel 3 in Reality” have suggested that for the smooth implementation of any norm the authority must look at the following points:

“The best argument for financial regulation rests on managing network externalities. • International standards are a type of public good. • Agreements and standards are products of negotiations in heterogeneous clubs. • Club member face different trade-offs, including short-term economic stimulus versus longer term prudent financial standards, welfare of banks versus welfare of taxpayers and welfare of labour. • The composition of these clubs has shifted from hegemonic management by the United States after the Second World War to expansive clubs. • Multiple clubs and multiple memberships create conflicts in the intersection of the interests of different clubs negotiating to create acceptable international solutions. • Basel III standards are a good case in point: delayed implementation, clear lowering of initially agreed standards on capital, leverage and liquidity, as well as wide latitude in implementation have made compatible many diverse interests. • Once a global agreement, such as Basel III, is reached, the transposition is left to national or regional regulators. Deviations from Basel III standards are bound to occur in the implementation stage. • Two important sources of deviations from the Basel III global rules have emerged. The first is the adoption by the EU of minimum regulatory standards and a single rulebook applicable to all financial institutions. • The second is the dual-regulatory system adopted by the US: one, with tighter standards than Basel III, is applicable to very large banks and the other, with Basel III like standards, is applicable to community banks.”

2.5 Key observations and Research gap

From the above literature review and referring to various other circulars issued by BIS and RBI, the researcher is able to draw the following pros and Cons of each accord and its Perspective from Indian banking View.

2.5.1 Basel 1

2.5.1.1 Pros of Basel 1 Accord

It set the benchmark for worldwide banks. Now all international banks have same set of rules wherein they need not discuss with the regulators of each country a different amount of capital requirement. Along with it the accord also provided equal opportunities to all the

banks competing with each other. The advent of difference in risk weights and assets classes
though did not present a complete picture of the true risk of the bank. Credit portfolio has
seen improvement in comparison to previous regulatory ratios. How much the accord was
successful that we can answer from the fact that it was replaced by Basel 2. But one cannot
say that Basel 1 was a complete failure as it became the first step towards the betterment of
banking system and improved the same to a better level. Though during the accord time the
economic situation was also good but one cannot say that the accord did not help in
regulating the banks, specially banks with lower capital base than what was required. Which
is also supported by Balthazar .L. (2006) \(^{84}\) Elizalde, A. (2007), \(^{85}\) Swamy.V (2012),\(^{86}\)

2.5.1.2 Cons/ Criticism of Basel 1 Accord

Though it did benchmarking but one cannot overlook the fact that the accord was basically
for G-10 nations and it mainly concentrated on credit risk. One can say that the scope of
Basel 1 accord was too narrow.

Secondly Basel 1 was overpublished by the committee in such a manner that the banks
started looking at it as one of the most important regulation and made these banks to think
that the emerging economies must also follow them and forced them to follow the norms. It
also lacked on the front of language while it contained norms applicable to banks the terms
used by them were such that it was beyond the understanding of the laymen.

Thirdly Basel 1 risk weightage gave ways to bank to “Wiggle” around, henceforth providing
more risk weights to the loans more than what was suggested by the framers of the policy.
What banks did to take advantage of the policy was they sold the less securitized investment
and added the amount to the capital of bank and on the other hand extended loans to the
orporates with higher risk. On papers it appeared that banks were avoiding risk while in
actual they took higher risk than what was suggested in accord by taking advantage of the
clause of the accord. Also banks manipulated the lending’s to OECD to take advantage of the

\(^{84}\) Balthazar, L., (2006), From Basel 1to Basel 3: The Integration of State-of-the-Art Risk Modelling in Banking
Regulation. Publisher Palgrave Macmillan ed-01 (pp 5-33, 39-99, 209-212)


weight given by moving the short term lending to long and long to short as the risk gap of both had a large gap to be fulfilled.

Basel 1 was mainly drafted for the G-10 countries but the developing economies also had to implement the same due to pressure from various international business and policy committee thus creating various situation which were not favourable to these economies and made the banks of these countries to take higher risk than what was prescribed. Also it created availability of “hot money” in these economies thus increased currency fluctuation/ volatility. The risk weights of government loans to private loans were different and it also caused a major melt down in the developing economies. Many of such reasons became the root cause of banks of emerging economies showing wrong or untruthful picture. The incorrect capital adequacy position thus affected the banks in the long run and many banks of the developing economies crashed as they were unable to bear the pressure of stringent lending and high capital adequacy ratio along with strict risk weight ratio. To contemplate the effect of Basel 1 and also to cover the gap which was left in Basel 1 the committee once again meet to form the new accord in 1999 after the banking crisis of 1990 and on high criticism of Basel 1 norms paved way to Basel 2 norms. Balthazar .L. (2006)\textsuperscript{87}, Swamy .V. (2012)\textsuperscript{88}

2.5.1.3 Indian Banking Perspective:

Basel 1 was implemented when Indian banking was in a governed phase where nearly all the banks were functioning under the preamble of the government. The presence of the Indian banks on the Global front was almost negligible. These accords provide the Indian banking with a view of the functioning of the Global banks but we being a closed economy the effect of any of the global events was not that high on the banking of the country. But it affected the Indian banking not that high in proportion but the effects were evident.\textsuperscript{89}

India being a developing economy suffered from the shortcomings of the norms, as the Basel 1 accord was clearly for the develop economies as we had seen ahead in that there were


\textsuperscript{89} Kumari, V. and Dinesha, GA., (2015), Adoption of Basel 1, 2 and 3 Norms by Indian Commercial Banks. International Journal of Applied Research 1(10), 883-886
various shortcomings in the accord from the view point of developing economy only reason for India to accept the same was the pressure developed by the banks of the developed world. India also faced the high currency fluctuation during this period as was evident in many other countries due to the implementation of the accord. Also the accord assigned weights to various risk aligned with credit where it did not differentiate between the government credits and corporate credits. Also it lacked in differentiating the norms for the large and developed corporates and small and medium scale enterprise. Which affected the Indian banking as Indian Economy was in developing phase there was a large number of borrowers whose rating got affected due to the norms of the accord as they were mainly small and medium scale enterprises and banks were not able to provide credit to these firms as they were not able to meet the credit rating requirements as specified by the accord.\(^90\) This affected the economy of the country to a large extent as the rotation of the money got slower and was only available to the large corporates. Thus making rich the richer. For any developing economy the small and medium enterprise play a major role in its development these got affected due to the accord thus it slowed the pace of the development of the Indian Economy.

### 2.5.2 Basel 2

#### 2.5.2.1 Pros of Basel 2 accord:

Basel 2 accord is more precise as compared to Basel 1 norms and gives much clear indication about various calculations. Along with it, it also gives banks enough freedom to decide on their own the method of calculation they wish to use. Also being very widely accepted the accord takes into account all the aspects of capital and investments. The pillar two and pillar three of this accord provided the regulators enough power to make changes in the supervision of banking if they feel that bank is not abiding by the norms prescribed. Thus making the regulators stronger. It also mentioned in the accord that a bank also needs to maintain a buffer capital thus securing the banks against any future risk that would have arisen due to non-maintenance of capital. As the regulators were given power to keep a check on the same it became necessary for the banks to abide by the accord.

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While Pillar one dealt with the financial ratios, Pillar two dealt with regulatory powers Pillar three introduced a very important aspect to the functioning of the accord. First time in the banking history it was made mandatory to declare to the public about the functioning of banks along with it banks also had to declare various ratios that it had to maintain. Thus keeping a check on the risk taking capacity of the bank. As the information were made public it compelled the banks to behave in a disciplined way, where it cannot take more risk as compared to the capital, as if this information is sent to the public, the stakeholders may turn finicky and in return may start selling the share or may withdraw the deposits with bank. Thus pillar three with the introduction of information to general public tried to make the accord more powerful and transparent. But this doesn’t mean that the accord didn’t suffer from any lacunas. These were supported by the researchers who compared both the accord like, Hasan, M. (2002)\textsuperscript{91}, Raman, R. (2006)\textsuperscript{92} and many more. While the work of Balthazar. L remains prominent in this case.

2.5.2.2 Cons/ challenges of Basel 2 norms

As it’s rightly said that solution for one sometimes becomes problem for another. The Basle 2 accord was a solution to the shortcomings of Basel 1 accord that lead to the loss of foreign exchange of the developing countries. Basel 2 provide corrective steps but again it clearly mentioned that these steps are only for the developed economies, for the developing economies they have developed another set of standards which were known as “ Core principle for Effective Banking Supervision.” Which were drafted in 1997 and were completed by 1999, these were again reviewed by 2006. But these policies were not that publicised also the international banks felt that all banks must follow the same standards. The policy which was drafted for emerging economies created a situation where the need of their financial sector felt ignored also these policies were looked over as obscure and it was felt that it does not have a required impact.

As the Basel 2 accord was drafted for the G-10 nations it was sure that it will have adverse effect on the emerging economies. As on one hand it was drafted keeping in mind the


developed economies on the other if implemented on developing it had to create repulsive effect which happened with the passage of time. While the draft was presented it was felt that the powers that were conferred on the regulators of the emerging economies may overwhelm the banking system of the emerging economies and leniency may affect the working of the banks of the emerging economies. Secondly it was felt that the accord in highly technical and requires a very well trained staff which these countries may not be able to get as they may not be having that high quality of education system. This in turn will prompt the regulatory body to adopt a linnet attitude towards its private bank which in turn will incentivize these banks. Also the accord presumed that in emerging economies market will be more illiquid and shallow and hence forth applying this norm will affect their economy. But with passage of time a reverse trend was seen, wherein the amendments of Basel were easy to be implemented by developing economies as compared to developed it brought these economies to the competing level of developed economies.

Further when accord was launched it was criticized on the facts that, its reliance on rating agencies to decide the quantum of risk may cause an unfavourable situation in industrializing economy as compared to industrialized economy. As it was believed that small borrowers cannot take help of the rating agencies thus giving them loan will become difficult and thus there will be no risk diversification in the loan books of the bank. It was said at that time that it may be possible that the developed economy banks may not be able to lend to the developing economies bank as these banks may not be rated by some of the large rating agencies as they may or may not be able to afford them. And in case rating is done it will not be in favour of the developing economies. While this was aptly answered by the developing economies like India and China which now feature on the hot spot for the foreign banks to lend or to invest.

Basel 2 also maintained its sovereign ceiling which was criticized as in any case bank debt will be rated low and also the history of some of the sovereign of the developing nations is not trustworthy and hence these countries banks will be rated low. The last criticism given to Basel 2 accord was that it will move in a direction which may hamper the growth of the business of any economy. As it will work on internal risk measurement it may happen during the time of recession by predicting the future the banks start behaving in a reverse pattern as compared to what is expected at that time. For eg. It is expected from banks to increase lending in the periods of recession but due to forecasting method it may withdraw the funds which may lead to faster recessionary trend as than was expected. These were the criticism
given during the launch of Basel 2 norms but what actually followed was somewhat different. The norms of the accord helped the banks of the developing economies to strengthen their position. This later led to direct competition between the developing and developed economy where the developing economies passed as a challenge to the developed economies. On one hand due to the accord the developing countries became strong. The leniency adopted by the accord by giving freedom to banks to decide on their own method of calculation hampered the developed countries banking system as they fabricated their records as there were provisions in accord which permitted them to design their own calculation. It is said that the 2007-08 subprime crisis were the reason for change of Basel 2 accord. But if we look at various microeconomic factors we will be able to find out that there were many other economic factors which failed Basel 2. The leniency of Basel norms or credit norms and over reliance of the banks on financial innovation created the liquidity risk. As it arouse gap between the borrowing and lending capacity of the banks. The availability of cheap funds encouraged the banks to be highly leveraged, this lead the banks to use the short term fund for long term lending. Even inadequate corporate governance and inappropriate compensation of seniors also became one of the reasons of failure of the accord. The subprime crisis above all this did the last hit which made the regulators think that are they on the right track or do they require another norms to topple the accord. This time period was the duration when it was felt that a set of new rules is required which came as Basel 2.5 in the year of 2009. Basel 2.5 enhanced the measures of Basel 2 accord and even tried to cover the loopholes of the accord. It took into consideration risk related to securitization and trading book exposures, it was expected to be regulated in December 2011. But in December 2010 the committee released Basel 3 norms. This set higher level of capital requirements and introduced a new global liquidity framework. Thus the new accord came into existence. These lacunas and change of events are also highlighted in the work of Balthazar .L. (2006), Swamy.V (2012).


2.5.2.3 Indian Banking Perspective:

The Basel 2 as we have already seen ahead was a better system for the developing economy no doubt it also lacked in the concept as Basel 1 as it was mainly formulated for the developed economy and again it did not cover the concern of the developing economies, but then also the accord was much better placed than its former counterpart. Though the committee said that the accord must not be adopted by the developing nations nearly all the nations adopted the same so as to have the same barometers of banking for the world-wide. Form the Indian perspective the accord was both good and bad as every coin has two sides.

On one hand as the new accord gave more power to the regulators on deciding the credit mechanism thus by opening the doors to finance the small and medium scale enterprise on other it still said that credit rating needs to be done to decide which project must be financed and to which level which again became a concern for the developing economies as many of the new ventures may not get aptly rated, but with the freedom given to the regulatory body to decide whom to finance and how it also said that if the body feels that the less credit rated lending can also function to level of high credit rated lending, they can give the loans only by making some extra provisioning for the same.

The accord which was said are not suitable for developing countries was actually supported in these countries while the reason of its failure were the developed countries who assumed too much leniency due to high rating done for them by the credit rating agencies. The Countries like India and China gave an answer to the critics of the accord by becoming the hot spot of financing and getting better rated by the credit agencies. No doubt they had to face many obstacles as these agencies being mainly governed by the developed nations sometimes rated India and its securities too negatively as was seen in 2013 September were Standard and Poor dropped the rating of India. Again Moody also dropped rating of the country during some time in 2014, but these did not affect the economy by and large as due to leniency given in decision making of financing the money rotation became smooth in the country.

The accord may have proved negative in many ways as we saw in the cons of the accord but according to the Indian perspective the accord was a welcome move and it was in line with the Indian Banking system. It not only helped the Indian Banking to become more global but also gave Indian economy a better support. As can be also seen from the work of Gupta, V.
(2005)\textsuperscript{95}, Tonveronachi, M. (2007)\textsuperscript{96} and No doubt its failure in developed nation had repercussion on the Indian Economy and Banking but due to the pattern of the working of Indian Economy and Banking and as we had seen ahead in Indian Banking system the effect was not devastating, but with the failure of the accord it was felt a new accord is required which may balance the approach for both the developing and the developed economy. It is considered that Basel 3 though a more stringent norm but is beneficial to world economy further we will try to see what the new accord is and its perspective in Indian Banking.

2.5.3 Basel 3

2.5.3.1 Pros of Basel 3

The biggest advantage of the Basel 3 accord is that it makes the financial institutions and banks enough strong to bear any kind of risk. The new accord is having enough provisions to make the banks stronger and stable for a longer duration. Also as mainly the focus of the banks is on the capital it will increase the soundness of the banks worldwide. We had seen in previous accords as how taking advantage of the single loophole the banks have manipulated the accord Basel 3 tries to cover all the loop holes of the past accord. In the previous accord only standardized approach was followed for managing the bank efficiency but here the banks have moved on an advance approach thus making the banks sound due to adequate capital. With the movement in capital the loan spread also increase and along with it increase will also take place in the interest margin of the banks thus will improve the profitability of the banks. If we take the same in the Indian context it is believed that the accord will make the Indian banks stronger. Though the speculations and researches are proving that for the PSU banks it will be challenge to raise the funds to meet the requirement of the capital but in only some of them are criticising the accord completely. Yes they believe there are loopholes but not one negating the complete accord. It is believed with a bit preparedness Indian banks will be able to meet the targeted requirements of the Accord. The researchers like Wignall,


2.5.3.2 Cons / Challenge of Basel 3 norms

The major failure that the researcher found in the Basel 3 is that it is not addressing the main contribution of Basel 2 to the last financial crisis, i.e. the accord though had failed the lesson is still remained unlearnt. Rating of the assets was the key culprit in the case of the failure of the accord. As the main feature of the accord was the bank needs to hold capital according to its RWA and this RWA could be manipulated as it was something which was based on the credit rating done of various assets by a rating agencies which were manipulated to rate the risks as per the say of the banks. The consequence of the precious accord was the due to lending to the risk enterprise. Many of the banks do not fail due to subprime crises though it is blamed but banks like Bank of America, Citigroup failed due to over exposure in triple A rated debt which were backed by pools of such loans which turned out to be too risk free. In this relation Basel 3 have not taken any steps in this direction on one had the banks will have to increase its CET against the RWA, the bankers will be encouraged to lend more to the less risky creditors or they will try to make the losses meet by investing in sovereign which are considered to be less risky. Thus pulling out funds from the economy. The worst part of the accord is that due to its flexibility it is not taking any measure to see the solvency of the banks.

For the developing economies they pause a new problem that is as these economies are moving towards higher growth they are having an increase in the demand on the credit this increase will lead the banks to grow in terms of capital requirements. However this will not be possible due to Basel 3 accord as the accord makes it mandatory to have capital backup. The economy of many of the developing countries is still facing issues due to the crisis of 2007-08 and in such a situation lending will be again a problem this may lead to raise in interest rates. In such a situation any additional cost will hamper the growth of the banking


sector of these economies thus we can say that it may have a negative effect on the profitability of the economy.

If we look from Indian banks perspective still we are a developing economy the accord will affect the pace of the growth of the economy by and large. Thus we need to check whether we are ready for the change or not. While Jayadev, M. (2013)\textsuperscript{100} also believes that there are many disadvantages also researchers like Datey, R. et. al. (2014)\textsuperscript{101} also supports the same.

### 2.6 Research Gap

A lot of research is done on the accord but still a lot is available only in theoretical perspective. We can see from the studies above that a lot of people favour the accord but still people are rarely providing any data. Also majorly all the studies present future forecast while no study is doing past validation. Along with it there is hardly any work done to cover the perspective of the implementer that is the bankers. Work is done to compare the norms but comparison in relation to global perspective is not found. Also the researcher was not able to find enough details in relation to the effect on the financial system and to find that whether it must be implemented with some changes. Also studies didn’t give a clear picture whether our economy is ready for the accord or not.
