Chapter 1

Introduction to the accords

Introduction

As the economies of the world are inching closer and globalization is on rise the policy makers have felt that banking system across world should work on uniform system for suitable development safety of financial system. One of the recent additions to this drive is Basel 3. Which has been accepted by RBI for banking in India and the banks are slowly moving towards compiling the system as per Basel 3. This makes it very interesting to study the implication of Basel 3 on the Indian banking and the view of experts in order to ascertain the effect and the likely impact of Basel 3 on Indian economy in the challenging time to come.

1.1 Introduction to Indian banking:

"A good bank is not only the financial heart of the community, but also one with an obligation of helping in every possible manner to improve the economic conditions of the common people". Shri AmmembalSubba Rao Pai, Founder, Canara Bank.

In India banking and coinage has its history mentioned in Rig veda, even during the time of Murya Dynasty it was tracked that bills of exchange and promissory notes existed which were known as Hundis and Adeshas respectively. Kutilya’s Arthsahstra dating back to 400 BC refers about a system of creditors, lenders, lending rates etc. which we can see are important part of the Banking system. Even Mr. W.E. Preston (Member Royal Commission on Indian Currency And finance, 1926) had quoted in context of presence of banking in India that “…..it may be accepted that a system of banking that was eminently suited to India’s then requirement was in force in that country many centuries before the science of banking became an accomplished fact in England.”

It is believed that an extensive network of indigenous bankers existed in the India from the times immemorial connecting all the towns and cities of commercial importance. The successors of these indigenous bankers can be found till today as pawn brokers, Shroff’s,

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Bishis etc. But the actual formal banking which we know today had started from the year of 1809 with the establishment of the Bank of Bengal. The privatisation of the bank which we consider a modern concept prevailed in India in 19th century the banks that were started were mainly private banks started by the business man of India. The Bank of Bengal though did not last long but it was the thought of the Indian businessman which gave birth to the formal Indian banking. Some of the oldest Indian banks which are still functional include Allahabad bank the first joint stock bank established in the year of 1865 and Punjab National bank established in Lahore in the year of 1875. Many more private banks were established by the business man in India during the swadeshi movement i.e. between 1906 to 1913 some of which are still operational. The first government bank only started its functioning in the year of 1921 i.e. the Imperial bank which was later named as State bank of India. The foreign banks which are considered to be the modern concept had its presence in India way back in the years of 1860 with the establishment of branch of Comptoirs’ Escomptes De Paris in Calcutta and in Bombay in 1862, the HSBC started its branch in Bengal in the year of 1869.³

Time passed and Indian Banking passed through various ups and downs. Pre Independence it was felt that Indian banking system requires a strong administration and by 1935 Reserve Bank of India came with its set of rule to administer Indian banking. Post-independence the first step that the government took that it nationalised the Reserve Bank of India and brought all banking activities under its preamble by formulating the Banking Regulations act 1949. This was followed by the nationalization of Imperial Bank in the year of 1955 and nationalising its subsidiaries by 1959 which are now called, known by the name of State Bank of India and its Subsidiaries. But this did not mean the onset of Public sector or must say Government banks in India After all this all the banks remained private sector banks till the year of 1969 as by then the government felt that the banks are a very important part of the Indian Economy so to improve its hold on the economy the first nationalization drive took place that nationalized 14 banks in the same year i.e. 1969, the second phase of nationalization followed in the year of 1980 with nationalization of 8 more banks. With this government controlled over 91% of the Indian banking Industry. Today there are 27 nationalized banks in India. With the passage of time it was felt that Indian Economy needs more liberalised rules to become global, with

this ushered in the LPG era which also brought in a new phase in the Indian banking Industry. As post-independence nearly all the banks that were opened pre independence were either merged into nationalized banks or closed down or were nationalized.

After 1991 the gates of the banking sector reopened for the private sector banking and the new Tech savvy banks became operational. With HDFC being the first Private sector bank to start its operation in 1993-94. Though ICICI and Axis (previously known as UTI) were also permitted to open the banks after they applied for the same but HDFC was the first complete private sector company to get the licence as the others were started by the government also the licenses of private banking was first given to HDFC. Later it was followed by ICICI and Axis. The privatization of the banking in India changed the complete scenario of banking in India.\(^4\)

Not only this if we look at the banking industry in India on a whole it has remained significantly different in comparison to banking industry worldwide, first of all as we have seen ahead Indian banking industry developed in various phases, but the main point of difference of the Indian banking industry from the world is the diversity in the Indian population on all major fronts like social, economic, education etc. On one hand India has become the most technologically active country but only 30% to 35% of the Indian population stays in Urban India. While the major population of the country still stays in Rural India which still poses a problem to the Indian banking industry as the reach of the Banks is par excellence in the Urban Areas but many of the rural areas still remain where there is no banks branch and they hold a major proportion of unbanked population of the country. With the new vision of the prime minister of India Shri Narendra Modi we are moving towards a different kind of banking in India which is for all along with the digital India Mission which will provide Indian banking a new perspective overcoming the problem of technologically illiterate people. The problem which was the biggest hurdle in development of Indian banking is now getting eradicated with the rural branches coming in and educating the people also now these banks are trying to tap the unbanked through various projects like Jan DhanYojana.

Indian banks stand strong on the front of NPA in comparison to any other country banks but the growth of the Indian bank has always remained a big question. If we compare the

Indian banking industry with the banks of other nations we will be able to see that though it has flourished in India but we have negligible presence out of India. There are very few Indian banks that have branches out of India. Our economic condition and close alignment of the bank with our economy had been one reason for such a slow paced growth. But situations changed after 1991 after the era of liberalization. The blueprint for banking sector reforms was the 1991 report of the Narasimham Committee. Reform steps taken since then include a deregulation of interest rates, an easing of directed credit rules under the priority sector lending arrangements, a reduction of statutory pre-emption, and a lowering of entry barriers for both domestic and foreign players.\(^5\)

Today banks have diversified their activities in various avenues today bank are just not limited to accepting and lending money but have widened their scope, though the basic activity still remains the same. Banks are today offering services like credit cards, consumer finance, wealth management, life and general insurance, investment banking, mutual funds, pension fund regulation, stock broking services, custodian services, private equity, etc. Further, most of the leading Indian banks are going global, setting up offices in foreign countries, by themselves or through their subsidiaries. According to the brand finance plc report of 2010, twenty Indian banks ranked amongst the top 500 banks of the world. In deed State Bank of India the largest PSU bank of India Secured 36th position amongst the top 50 banks of the world according to the report.

Amidst all this good news the problem that Indian banking is now facing is the wrath and effect of Global Financial problems. As we are opening our doors to the global economy any movement in the world economy also has its effect on the Indian banking. Since 2007-08 the world economy is in jeopardy, and Indian banking is also not averse to it, though the effects are not prolonged but has affected the Indian banking Industry. The only reason that is believed that is saving the Indian banks is the effect of our Saving based Economy, we the Indians believe in saving before spending and that is working as the back bone of the Indian Economy and banking but with the changing generation and

becoming more and more globalised let’s see how far our banking will be able to save from the devastating effects of the erosion of Global Economy.\textsuperscript{6}

Today Indian banking industry is facing certain big challenges and to further move ahead it need to overcome these challenges. On one hand the capital adequacy requirements are rising as per the global banking policy and on the other the urban market is becoming saturated for the banks. It needs to venture in the rural market but that is a tough case. In short the upcoming challenges for the Indian Banking Industry are to establish itself in rural market, maintain high capital requirements as per new BASEL guidelines along with the aforesaid risk the other challenges that the Indian Banking Industry is currently facing are management of risk as we had seen in past that risk is not managed properly and affected the foreign banks in India as these banks became bankrupt. Growth in banking with the advent of technology and stringent risk measures it is becoming hard day by day for small banks to survive. This has become one of the major reasons of mergers of small banks into large banks which we have observed in the last decade. Market discipline and transparency requirements are also rising day by day with the introduction of the new corporate governance policy. Amidst all these technical problems and risk a new problem or must say challenge has also crept in the banking sector of India. The high requirement of Human resource management and human retention. These two issue are raising their head very frequently on one hand it is becoming hard to manage such a huge and wide spread staff also employee retention is going low. And social and ethical issues are also rising day by day. It can be said that current banking Industry is facing too many challenges. The banking industry which is the back bone of the Indian economy and which is one of the largest employment provider to the youth of the country is facing sever Human resource management and retention issues now a days.

If we think about the way ahead of the banking industry of India it can be said that the road is not at all smooth. The situation is becoming more and more complicated every day and risks of all kinds are increasing. Any step taken today can have a lasting effect on Indian Banking Industry. Implementation of BASEL 3 Accord is one of the major challenges that can be foreseen in near future which will change the Indian Banking Industry in many ways. But before moving directly to Basel 3 norms let’s have a brief

view of how Basel norms came into existence, And how Basel 1 and Basel 2 were introduced and failed worldwide, Also we will have a view how each of them i.e. Basel 1 and Basel 2 affected Indian banking.

1.2 Introduction to Basel norms

Rapid development of the financial sector had brought sweeping changes in the banking system throughout the world. The new avenues opened the new revenue generating ways for the bank on one hand but on the other it had exposed the banking system to unaugment risk in various fields. With the introduction of new avenues and technologies the bank were now open to higher risks such as credit risk, market risk, operational risk, reputational risk, business risk, strategic risk etc., are some of these examples. The exposure to these kind of risks arouse the concern for the strengthening the soundness and stability of the banks. Government all across the world wanted to make banking system efficient.

Turmoil of financial markets and breakdown of Bretton Wood’s system in 1973, paved way for the Basel norms. After the breakdown of the Bretton Wood’s system many banks had to suffer huge foreign currency losses and to add to it on 26th June 1974 West Germany’s Federal bank cancelled the licence of the Bankhaus Hestatt’s due to its over exposure in the foreign currency, than what was permitted also the exposure was much more than the banks’ capital. The effects of this step was not limited to Germany, it paved the way to the turmoil in world financial markets due to the unsettled trades with the Hesttat bank. This lead to close of Franklin national bank in New York by the end of the October in the same year due to heavy losses in foreign currency. Monetary authorities and policy makers throughout the world decided that the increasingly more common cross-border capital flows and the resulting integration of financial markets that had been going on for some time, required a new global regulatory framework which would help ensure the stability of the international financial system. In particular, it became obvious that even though the prudency of domestic banks might be secured via home country regulations, the international activities of these banks lacked proper supervision. Thus, against the backdrop of these considerations, the Basel Committee on Banking Supervision was established under the auspices of the Bank for International Settlements in Switzerland by the central bank governors from the G-10 countries (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, the UK and USA) in cooperation with the monetary authorities of Luxembourg and Switzerland.

Committee’s task was to analyse the complexities of the modern banking system and respond to them with propositions of guidelines for appropriate supervision. The committee was formed so that a regular cooperation between its members on banking supervision can be done. The main aim of the committee was or must say is to enhance stability of the financial institutions by improving its supervisory knowhow and quality of supervision. This committee is constantly trying to achieve its goal by setting minimum standards which can be followed by all. After starting as a G-10 group the committee now includes 28 jurisdictions. The committee now also needs to report to group of Central Bank Governors and Heads of Supervisors (GHOS). The committee’s decision has no legal boundations. Instead one must say it guides in formulating supervisory standards and guidelines and recommends sound practices. It encourages member countries to adopt the norms, since 2012 it also began monitoring implementation to improve resilience of the global banking system.

The main aim of the committee was to protect its member nations from the losses as that occurred in the past. To achieve this aim the most important part was to close gaps in international supervisory coverage first by not allowing any foreign bank establishment to escape supervision. Secondly by making the supervision adequate and constant in the member nations. The first step to this was the “Concordat” issued in 1975 which was further revised in May 1983 thus formulating “Principles for the supervision of banks foreign establishment. Following this amendments were further done in 1990 and 1992.

October 1996, the committee released a report on “The supervision of Cross border banking” drawn up by a joint working group which was formed by the supervisors from non G-10 jurisdiction and offshore centres. This involvement of non G-10 countries played the vital role and thus came the “core principles for effective banking supervision in the following year. In 1996 the G-7 countries finance ministers called for effective supervision in all financial markets along with the developing economies they came with the implementation of the first set of Basel norms. In 1997 the first set was formed ad implemented which had 25 main principles, which the committee thought are important for making an effective supervisory system. In 2012 after several revisions the document got a new shape containing 29 principles which emphasise on various factors such as supervisory powers, needs of early interventions and timely supervisory actions, supervisory expectations of banks and compliance with supervisory standards.
The first step they took to strengthen the banking system worldwide was known as Basel 1 which was formulated in the year of 1988, though the rules were not legally bound but nearly 100 central banks around the world accepted the accord. The accord dealt with the minimum capital requirement and provided a framework for the same. It mainly dealt with the credit risk and risk weighting of the assets of the bank. The main shortcoming of the Basel 1 accord was its rigidity as it did not discriminate between various levels of credit risk. It rated an established business on the same lines as that of the new business and did not focus on the repayment capacity. Also it did not take into consideration credit rating, credit history and corporate governance, and also one of the most important risks in the banking sector that is operational risk was not taken into consideration. Due to these shortcomings the Basel 1 Accord was replaced by Basel-2 Accord. Basel 2 Accords focused on capital adequacy ratio. The accord is based on 3 pillars 1) Minimum Capital requirement, 2) Supervisory review process, 3) Market Discipline. Where Basel-2 Accord fulfilled the gap present in Basel 1 Accord and was accepted more widely as compared to Basel 1. In Basel 1 Accord the problem came with the developing countries as they were not able to survive the required strict rules and more flexible rules were introduced. In 1997-98 the problem with the developing countries was they suffered on foreign exchange, the Basel 2 provided a corrective steps to these countries and their economies strengthened but in pursuit of strengthening their economy these developing nations became challenge to the developed country. On one hand Basel 2 made developing countries strong but the leniency adopted hampered the developed countries banking system and they went on the wrong way. It is said that the 2007-08 subprime crisis were the reason for hange 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 Accord. The leniency of Basel norms on credit norms and over reliance of the banks on financial innovation created the liquidity risk. As it arouse the gap between the borrowing and lending capacity of the banks. The availability of cheap fund encouraged the banks to be highly leveraged, they used the short term borrowings for long term lending. Even inadequate corporate governance and inappropriate compensation system of senior is also one of the reason of failure of Basel 2 Accord. The Subprime crisis worked as the last nail in the situation and it was felt that a new set of regulations are now required. Basel 2.5 which was formulated and agreed in July 2009 enhanced the measures and tried to cover the loop holes of Basel 2 it took into consideration risks 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 which set higher level for capital requirements and introduced a new global liquidity framework.

### 1.3 Basel 1 Norms:

The formation of BCBS was to standardize the banking regulations through constant consultation between the member groups. The committee which currently meets four times in a year has many members. They currently have 30 technical working groups and task forces which keep a constant contact amongst each other thus maintain proper standards.

The first draft of the regulation by this committee was made publicized in 1980 which focused on risk based capital adequacy standards. This first draft was introduced as “The international convergence of capital measurement and capital standards” which was popularly known as Basel 1 which was approved by 1988. The G-10 enforced the recommendations by law by the year of 1992. The Basel 1 was mainly formulated in a manner where it mainly focused on effective supervision of international banking operations and contained proposal for harmonizing various national capital adequacy ratio. The accord’s main focus was on credit risk by defining capital requirements by the function a banks on and off balance sheet positions.  

Basel 1 draft proposal needed an approval from all participating nations with each nation having a right of VETO. Thus the rules were formulated in such a manner that a common consensus can be reached. For this purpose some options were left on the countries discretion implementing the rule. It was thought to apply draft to achieve the goal of and to define minimum capital requirement but participants were allowed to implement stronger rules. Firstly it was thought the rules will be applicable only to the banks with international presence but many banks applied it at national level, also the main function of the ratio was to assign weight to both on and off balance sheet items. The objective was to achieve a risk weighted level of the assets held and maintain a capital level of 8% of the weighted assets. Leading to a major difference in this ratio in comparison to previously tested ratio, was that it bifurcated the assets by their function and the assumed risk along with it, this ratio for the first time emphasised on off-balance sheet items which were major part or say major proportion of balance sheet in the period of 1980’s due to development of derivatives instrument.

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As the main emphasis of this accord was on capital requirement the most important part of the work was to determine what is capital? To bifurcate the capital in a proper manner the experts divided the same in 2 parts i.e. Tier 1 and Tier 2 capital. Wherein Tier 2 capital was kept that it can be maximum 100% of Tier 1 capital. Along with it goodwill was removed from being considered as capital as it is not only subjective but its value also fluctuated a lot. Along with it goodwill being an intangible asset carried very low or must say negligible value in case of liquidation, also investment made in subsidiaries were also deducted as it formed part of the capital resource. The committee members were divided on the decision of whether to consider or not the investments of one bank in another banks capital & vice versa paving way to an artificial increase in the capital of both the banks. Thus defining up to a certain level capital in various Tiers’. The same can be seen as follows:

**Tier 1 consisted of:**

Paid up capital + Disclosed reserves. Where in disclosed reserves were retained profit, General reserves, legal reserves, etc.

**Tier 2 capital was formulated by:**

Undisclosed reserves + Assets revaluation reserves + General provisions + Hybrid instruments + Subordinate (Unsecured and fully paid) debts (max 50% of Tier 1, minimum 5 years- discount factors for shorter maturities)

While deductions were made from Tier 1 and Tier 2 capital, goodwill from Tier 1 and Investments in unconsolidated subsidiaries done from Tier 1 and Tier 2 to avoid duplication. Now as discussed earlier the main emphasis of the committee was to assign weights to various assets according to the function of the assets, the next step was to assign weights. The committee defined the curious weight levels that would weigh the balance sheet items to reflect their assumed risk level. The risk weights assigned by the committee in Basel 1 are as follows:

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Table 1.3.1: Risk weights of assets in Basel I

<table>
<thead>
<tr>
<th>Weights</th>
<th>Things included</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% Weight</td>
<td>• Cash</td>
</tr>
<tr>
<td></td>
<td>• Claims on OECD central government</td>
</tr>
<tr>
<td></td>
<td>• Claims on other central government if they are funded in the base countries currency so that risk of currency transfer affecting the exchange can be avoided.</td>
</tr>
<tr>
<td>20% Weight</td>
<td>• Claims on OECD banks and multinational developed banks.</td>
</tr>
<tr>
<td></td>
<td>• Claims on banks other than OECD maturing in a duration of less than 1 year.</td>
</tr>
<tr>
<td></td>
<td>• Claims on public sector entities of OECD countries.</td>
</tr>
<tr>
<td>50% Weight</td>
<td>• Mortgage loans</td>
</tr>
<tr>
<td>100% Weight</td>
<td>• All other claims like( claims on corporate on other nations except OECD with maturity more than 1 year, fixed and all other assets)</td>
</tr>
</tbody>
</table>


After deciding on the weights of on balance sheet items the next step for the committee was to weight the off balance sheet items as we had seen in the discussion ahead the off balance sheet items played a major role in determining these ratio. To do it more systematically it was further divided into 2 broad categories.

- First part being that part of credits which still remained unfunded. (For e.g. The unused credit limit given to customer that can become an on balance sheet item a y time given how the customer uses it)
- Second were the derivatives instruments which derived its value from the underlying market variables. (Foreign exchange contracts, interest rate swap etc.)

For helping in calculation the first part was assigned credit conversion factors so that these off balance sheet items can be converted into their on balance sheet equivalents being further treated as other assets to form a part of calculation. While assigning weight it was taken into consideration that what will be situation of these off balance sheet gets converted into on balance sheet items. The weights so assigned are as follows:
Table 1.3.2 Credit Conversion Factors (CCB’s)

<table>
<thead>
<tr>
<th>Weights</th>
<th>Particulars</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% weight</td>
<td>• Unused loan limit with maturity of maximum 1 year.</td>
</tr>
<tr>
<td>20% weight</td>
<td>• Short term self-liquidating contingencies.</td>
</tr>
<tr>
<td>50% weight</td>
<td>• Transaction related contingencies</td>
</tr>
<tr>
<td></td>
<td>• Undrawn commitments with maturity more than 1 year.</td>
</tr>
<tr>
<td>100% weight</td>
<td>• Direct credit substitutes</td>
</tr>
<tr>
<td></td>
<td>• Sale and repurchase agreement</td>
</tr>
<tr>
<td></td>
<td>• Forward purchase assets</td>
</tr>
</tbody>
</table>


For the second part two things were taken into consideration the current replacement cost and the potential future cost a sum of these two was the credit equivalent to a derivative contract.

After defining the most important pillars of Basel 1 that is constituent of capital and risk weighting the next two pillars derived its value i.e. a targeted standard ratio and transitional and implementing agreements. Wherein targeted standard ratio it is standardised that the universal standard of capital must be 8% of risk weighted assets as we have already discussed earlier along with it Tier 1 capital must also cover 4% of banks risk weighted assets being a minimum requirement to guard against credit risk.

While the fourth pillar was more on supervision and surveillance. It was guided by the committee to the members that a strong surveillance mechanism to be followed by the central banks of member nations so that the banks follow the guidelines given by the committee and along with the same is done in the transitional period given by the committee to the banks.

When we see the implementation of Basel 1 accord as the Basel committee states it was a rather smooth move as the banks of various nations were open to accept the amendments given by the committee as it allowed a degree of freedom to the nations on various decisions. Except Japan nearly all the countries implemented the same by the year of 1992, Japan also followed it in 1996. Though the Basel 1 accord was not in line with the working and requirements of emerging economies as it was mainly formed for industrialized and developed country. But these nations followed it as was seen by large investment banks a measurement of regulatory strength and financial stability. But along with all good there were
certain loop holes which lead to the crash of Basel 1 accord. Basel 1 was criticised on many points as we will see further. Also a cure for one nation became a problem for another nation.

1.4 Basel 2

Basel 2 the successor of the Basel 1 accord did not negate the previous accord completely instead it took its base from Basel 1 accord. It based its working on 3 main pillars i.e. minimum capital requirement, supervisory review and market discipline to provide a sound and safe international banking system. But before understanding what Basel 2 exactly is let’s have a look how and when the same was formulated. After the failure of Basel 1 it was felt a new accord was required to provide strength to international banking system Basel 2 came as an answer to it, the first draft of the accord was presented in 1999 which was formally called as “A revised framework on international convergence of capital measurement and capital standards” and informally it was called the Basel 2 accord. As said earlier it did not negate the Basel 1 accord it just expanded the purview of each pillar so that it can provide better support to the international banking system. It was not such that the first set of rules presented by the committee was expected. It took 6 years of regulators work and observance of the market and banking sector to finally come with the final draft which was acceptable to all by the mid of 2003 and June 2004 the final proposal was published. Making the regulators follow the 3 pillars of the norm stringently so that any further financial fall can be eliminated. Let’s have a look at various pillars of the accord.

Pillar 1 which was for minimum capital requirement tried to cover the loopholes of Basel 1 accord. It took care of the window dressing done using risk weighted assets to take advantage by just showing some fake minimum capital adequacy requirements. The first step that was taken to avoid this window dressing was to widen the horizon of regulations covering the assets of the holding company of a bank so that it may not transfer its assets to its subsidiaries to hide the same. Also it stated that for the calculation of capital requirement the entire firm will be taken for its subsidiary bank. For this in Basel 2 for first pillar certain covered risks are given let’s have a brief look of the same.

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11 www.bis.org, www.rbi.org
1.4.1 Credit risk

In the first pillar based on Basel 1 it was advised to use the standardised approach then using credit risk weight method that is discounted according to the nations. Here standardised approach means to assign capital weights according to the market based rating agencies. Here the debts are assigned rating by the authorised rating institutes and thus weighted accordingly. The weights that were assigned are as follows. If a debt is weighted AAA to AAA- it is assigned a 0% weight. It the same is rated A+ to A- it is assigned 20% weight. If the debt gets rated BBB+ to BBB- it receives a 50% weight. If the same debt is rated BB+ to BB- it receives a 100% weight. If any debt is rated B- or below than the weight assigned to it is 150%. But it doesn’t mean that if debt is not rated it will not get any risk weight such debts are risk weighted at 100%. If debt is given in local currencies regulators are allowed to give a lower weight if they feel the riskiness is low, even if it falls in rating for higher riskiness. This is how a government debt is rated. In bank debts authorities can choose between two risk weighting options. In this at first place banks will automatically rate one step less favourable in comparison to debts of the government. For e.g. If a government regulator is rated A+ the risk weight assigned by the banks that falls under the jurisdiction will be 50%. The highest risk is kept at 100% if the regulator is getting rated below BB+ or remains unrated.

The next option for the risk weighting of the banks debt follows the same credit assessment as that was used for government/ regulators bond. Wherein AAA to AAA- gets 20% A to BBB- debt is weighted 50% same as that of government debt. Other ratings are also kept in the same manner like BB+ to BB- the weight is 100% and if rated below B- the risk weight is 150%. Unrated debts weight will differ a bit from the government debt in the first case it was 100% while in the banks debt case the weight is 50%. If the banks has such claims which has a short duration i.e. less than 3 years the BB+ debt will be rated at 50% instead of 100% as assigned to government debt.

In standard approach corporate debt is also considered and rated in the same manner as the bank debts expect with a change where a debt with BB+ and BB- rating is included in 100% risk category and any debt below BB- is rated at 150% category as compared to bank debt at B- and below category. Unrated debts remain at 100% while home mortgage in addition are given 35% of weight and corporate mortgage are given 100% weight.
1.4.2 Operational Risk:

Basel 2 extended its approach to operational risk to provide a protection against such a risk. For operational risk the accord has provided three mutually exclusive methods as can be seen from the chart.

![Operational Risk Methods](chart)

| Basic Indicator Approach | Standardized Approach | Advanced Measurement Approach |

In basic indicator approach the banks were guided to keep 15% of their gross income of last three years as capital. Regulators were permitted to adjust these 15% according to their risk assessment of each bank. In second method that is standardized approach method the banks are given a standard table according to which they need to maintain cash in line of their business. This cash is needed to protect the banks from the operational risk that may differ due to the difference in line of business of the bank. Where the operational risk is low the target of reserves is also low where the targeted operational risk is high the % profit needed to be kept as reserves is high for e.g. for corporate reserves its 18%, retail banking its 12%, commercial banking its 15%, retail brokerage its 12% etc.

The last method that is “Advanced Measurement Approach” is much less complicated than the prior two methods and also includes both the banks and the regulators as was done in IRB approach. It allows banks to develop their own reserves calculations as was done earlier in IRB with no doubt that the regulators need to approve the final results of such a calculation. Just like IRB its main motive is to bring market discipline along with an attitude of self-surveillance.

1.4.3 Market Risk:

In pillar one of Basel 2 norms the last risk to be covered was market risk. “Market risk is defined as the risk arising due to movement in assets price”. Basel 2 clearly diversifies the investments into fixed income and other securities considering the two types of risk i.e. interest rate risk and volatility risk which are an integral part of market risk. While in accord
for the calculation of risk on fixed income securities an individual risk measurement i.e. VaR “Value at Risk” is advised along with the IRB approach and IMA approach. Banks were told that they can develop their own calculation methods to determine the needs of reserve requirements that are required to create a protection against the volatility risk and interest rate risk based on various situations.

The accord says that if any bank does not wish to follow the methods of VAR can use two different methods to cover both the risk and create reserves. For interest rate risk the accord directs the banks to hold reserves amongst somewhere between 0% to 12.5% of the amount of security with consideration of its maturity time. For e.g. if a security is having a maturity time of less than one month the risk percentage assigned is 0.00% while if the same is having a maturity time of one year or less its 1.25% and if it is something over 20 years its 12.5%. While in the second step of this calculation to cover the volatility risk the accord has recommended the method of credit rating to be used wherein a security having a credit rating of AAA to AA- may be given 0% weightage while an instrument with BB+ to B- may be assigned risk weight at the rate of 8% etc. If the instrument remains unrated by the agency than the standard rate of risk weight i.e. 8% must be assigned. A sum of this both risk will be taken to determine the value of reserve i.e. required. After these entire calculation bank is well versed with its operational and market risk and has also adjusted its assets according to the credit risk. Giving it a clear picture about the capital reserves that is required according to the accord. Though Basel 2 has provided with various flexibilities no change was done in Tier 1 and Tier 2 requirements and along with these two the third dimension in this form was added for maintaining an 8% reserve for credit default. We can summarise the same by saying that according to Basel 2 the reserve requirement can be calculated as follows:

Reserves= 0.8*(Risk weighted assets + Operational Risk Reserves + Market Risk Reserves)

While with this we come to end of the theoretical analysis of the pillar one requirements of Basel 2 accord. But still we need to focus on the other two pillars of the accord. Though not that toughly calculated these two pillars form a very important base of the accord. These two pillars are more of theoretical supervisory methods than including the complex calculations. Let’s have a look on the remaining two pillars i.e. pillar 2 and 3.
1.4.4 Pillar 2 and Pillar 3 of Basel 2 accord a brief overview

The remaining two pillars of the accord are much simpler as compared to the pillar one. While pillar one gives out the measurements that needs to be taken Pillar 2 & 3 gives supervisory view how to achieve the same. Pillar two mainly focuses on the powers that can be provided to the regulators for the regulatory decisions and implementation of the accord. The regulators are provided with powers to see that Pillar one is properly implemented and proper methods are adopted to calculate the internal risk management also it looks into the matter that if a bank is unable to follow the complex calculation based method than it adopts the simpler methods of calculations. Also these regulators are given the power to check the capital requirement on the bank and its assessment by the banks. If the regulators feel that any bank is doing misappropriation in this calculation they are given the right to question the senior management and can also hold them responsible for this misrepresentation. As banks were given a free hand in the accord to draft their own risk profile based on various points as we were able to see in pillar one, if any bank defaults on reporting the same to the regulators the regulators according to the accord were given the right to penalize the bank at fault.

The additional power given to the regulators in Pillar two helped them in achieving their goal more effectively. Firstly the regulators were allowed to make the banks maintain a buffer capital in case they feel that bank is not going in the right direction as prescribed by the accord this buffer capital will be an addition to the minimum capital requirement. Secondly in the countries like China and Korea the supervisory authority are given more power and are directed to take corrective steps if the capital falls below the minimum level. The supervisors were authorised by the accord to tell or direct the banks in deciding the remedial measures that bank can take in such a situation. With this we can see that pillar two of the accord provided the supervisors with more authority to see that banks follow the accord properly and where ever required the supervisors were allowed to take corrective steps for the betterment of the bank. The supervisors were also given the power to penalize the bank in case of default which was not possible in earlier situation.

Pillar three of accord dealt with making the financial information public in relation to various risks that it has and how does it plan to overcome the same. It made the banks to declare to general public in detail review of the risk profiling of the bank by doing so the accord

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expected to make the shareholders more conversant with the actual position of the bank and thus disciplining the risk taking and reserve holding capacity of the bank as by this the shareholders will have a feel that a bank is not following corrective measures it will automatically penalize the bank by withdrawing its funds by selling its share, resulting into forcing the banks to take the corrective steps. As the information was available in the public domain this made it tough for the banks to attract additional capital in the situation if it is not able to abide by the prescribed reserves requirements as it turned the stakeholders finicky on the financial capacity of the bank. Thus we can see how extensively the Basel 2 accord tried to overcome the shortcomings of Basel 1 accord.

1.5 Basel 3 norms:

Basel 3 norms were the result of the failure of Basel 2. The main aim while drafting these norms was to strengthen the banking system to absorb the shock that may arise due to economical or financial stress so that the spill over effect can be minimized. During Pittsburgh summit in September 2009 the G-20 nation’s leaders and regulators came together and decided on the ways to strengthen the banking regulatory system. They also decided to take steps to end excessive risk taking of the banks and to discourage banks from understating the risk. To improve over the counter derivatives market and to create more powerful tools to hold large firms accountable for the risk that they take. With these aims at the centre of the discussion in 2010 December the BCBS came with the new rules and reform packages entitled “Basel 3: A global regulatory framework for more resilient banks and banking system.” Basel 3 reforms had a micro prudential focus to address system wide risk which can build across the sector as well as the procyclical amplification of these risks over time.

With the 2008 crises it was well proved that the previous norms are not sufficient to control the losses, as many risks were still left unnoticed or must say un attended. These new regulations were so drafted to raise the quality and level of capital to address the issues that the bank remain in better position in case of losses in both the situation of going concern and the gone concern. These norms had a major focus on the capital buffer creation. The two buffer introduced in the accord i.e. capital conservation buffer and countercyclical buffer are intended to protect the banking sector in the situation of excess credit exposure as can be handled by the bank. Reserve Bank of India has issued its guidelines based on the accord on May 2, 2012 to be implemented from April 1, 2013 in the phased manner till March 31, 2019.
1.5.1 Pillar 1 - Scope of application of capital adequacy framework.\textsuperscript{13}

A bank shall comply with the requirements of capital adequacy framework at 2 levels i.e.

i. The consolidated level

ii. The standalone level

i. \textit{Capital adequacy at group/ consolidated level:}

Banks to calculate the capital adequacy ratio at group level needs to consolidate the assets and liabilities of the subsidiaries. This would ensure that the capital adequacy ratio is calculated after taking into consideration the assets and liabilities of the group company. But it is to be noted that insurance company and any other non-financial subsidiary of the bank will not be considered for calculation. Along with the various adjustments in relation to goodwill and other tangible and intangible assets need to be consolidate in common equity Tier 1 capital.

Any capital of subsidiaries that is held by third parties also needs to be considered while calculation of capital. Banks need to see that subsidiaries that have a separate financial entity and that are not consolidated for capital purpose but rather that is otherwise used for the calculation of regulatory capital status is deducted, meet their respective regulatory capital requirements. In case there is a shortfall in the regulatory capital requirements in the unconsolidated entity, the shortfall shall be fully deducted from the common equity Tier 1 capital.

\textit{ii. Capital adequacy at solo level. Standalone level:}

If calculations are done for the capital at solo level all the regulatory adjustments as will be discussed further needs to be taken care. In case there is some investments done in the subsidiaries which would have been consolidated in the consolidated level will be deducted from the consolidated capital instruments issued by the bank in this case. In case of any shortfall it need to be fully deducted from common equity of Tier 1 let’s have a brief look that what all is included in the Regulatory capital or must say let’s see what composites the regulatory capital.

\textsuperscript{13} RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel III Capital Regulations (July 1, 2015)
Banks are required to maintain a minimum Pillar 1 capital to Risk weighted assets ratio (CRAR) at 9% on an ongoing basis. While calculating this, the RBI takes into accounts all the risks that are attached with the capital requirement of the banks to see that enough capital is maintained by the banks to handle any kind of risk. This will be done by the banks to handle any kind of risk. This will be done by the banks risk management system which will try to identify, evaluate and monitor various kinds of risks including the risks which are present in bank books like interest rate risk, liquidity risk concentration risk and residual risk.

The reserve bank is required to maintain a higher level of minimum capital under Pillar 2. Further banks are expected to operate at a level higher than the minimum capital required in case of Pillar 2. Following are the basis of calculation for Basel 3 capital ratios.

Common Equity Tier 1 Capital Ratio = \[
\frac{\text{Common equity Tier 1 Capital}}{\text{Credit risk RWA+ Market risk RWA+ Operational Risk RWA}}
\]

Tier 1 Capital Ratio = \[
\frac{\text{Eligible Tier 1 Capital}}{\text{Credit risk RWA + Market Risk RWA+ Operational Risk RWA}}
\]

Total Capital (CRAR) = \[
\frac{\text{Eligible Total Capital}}{\text{Credit Risk RWA+ Market Risk RWA+ Operational Risk RWA}}
\]

As per above mentioned regulatory capital let’s have a look which capital will be considered as regulatory capital according to the master circular of RBI.

1.5.1.1 Elements of regulatory capital and the criteria for their inclusion in the definition of Regulatory Capital:14

1. Components of capital
   i) Tier 1 (Going Concern Capital) i.e. the capital of the bank that can absorb losses which includes a) common equity Tier 1 and b) Additional Tier 1 as mentioned by RBI circulars on time to time basis
   ii) Tier 2 (Gone concern Capital) is the capital which will be able to absorb losses only if the bank liquidates. As mentioned by RBI circular on time to time basis.

14 RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel III Capital Regulations (July 1, 2015)
2. **Limits and minima**

RBI has decided that all scheduled commercial banks need to maintain a Total Capital of 9%, i.e. capital to risk weighted assets (CRAR). In common equity Tier 1 capital must be 5.5% of RWA i.e. of Credit Risk + Market Risk + Operational Risk. The below chart will give a complete view about the regulatory capital maintenance.

Table 1.5.1: Risk Weighted Assets to CET

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Regulatory Capital</th>
<th>As % to RWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minimum Common Equity Tier 1 Ratio</td>
<td>5.5%</td>
</tr>
<tr>
<td>2</td>
<td>Capital Conservation Buffer</td>
<td>2.5%</td>
</tr>
<tr>
<td>3</td>
<td>(1) + (2)</td>
<td>8.0%</td>
</tr>
<tr>
<td>4</td>
<td>Additional Tier 1 Capital</td>
<td>1.5%</td>
</tr>
<tr>
<td>5</td>
<td>Minimum Tier I capital ratio (1+4)</td>
<td>7%</td>
</tr>
<tr>
<td>6</td>
<td>Tier 2 Capital</td>
<td>2%</td>
</tr>
<tr>
<td>7</td>
<td>(5 + 6)</td>
<td>9%</td>
</tr>
<tr>
<td>8</td>
<td>Minimum total capital ratio plus Capital Conversation Buffer</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

Source: RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel III Capital Regulations (pp-12)

1.5.1.2 Credit Risk Mitigation

Banks currently use various techniques to mitigate credit risk that includes collateralisation in whole or part, third party guarantee etc., the new framework provides with a wider range of principles for the credit risk mitigation. This same method will be applicable for the calculations of OTC derivatives and Repo Styled transactions booked in the trading book. It is advisable to the banks India to use the comprehensive method where in the method of “haircut” will be used. Here the “Haircut” refers to the discount factor where in the “volatility adjusted amounts for both exposure and collateral. The volatility adjusted amount for the exposure will be higher than the exposure and the volatility adjusted amount for the collateral will be lower than the collateral, unless either side of the transaction is cash. In other words, the ‘haircut’ for the exposure will be a premium factor and the ‘haircut’ for the collateral will be a discount factor.” Here it is to be considered that if the exposure and collateral are in different currencies an additional downward calculation must be done to adjust currency volatility also. The general principal for the comprehensive approach are as follows:
1.5.1.3 Market Risk:\textsuperscript{15}

Risk associated with the change in market is called market risk. This change may take place due to n number of reasons such as change in interest rate, change in exchange rate etc. for this the banks mainly use one of the following techniques are mainly used

a. Securities included under the Held for Trading category
b. Securities included under the Available for Sale category
c. Open gold position limits
d. Open foreign exchange position limits
e. Trading positions in derivatives, and

Banks need to do this risk calculation on ongoing basis and need to maintain the capital on the ongoing and continuous basis as the risk associated with the market is unpredictable. For the debt instrument the RBI has prescribed basically two methods that can be used for calculation of capital charge to mitigate the interest rate risk. These are HFT and AFS. The schedule to be used for the same in various cases is as attached in the annexure.

For the covering the market risk in relation to equity minimum capital requirement to cover the risk of holding or taking position in equities in the trading book is set out. This is applied to all instruments that exhibit market behaviour similar to equities but not to non-convertible preference shares. Capital charge for specific risk will be 9% and specific risk is computed on the banks for equity positions.

For the calculation of capital to cover market risk in foreign exchange it is specified that the bank need to cover all its open position such as net spot position, net forward position, guarantees, net future income/ expenses not yet accrued but already fully hedged etc. these kind of position are assigned an RWA of 100% thus capital charge for forex and gold will be 9%.

\textsuperscript{15} RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel III Capital Regulations (July 1, 2015)
1.5.1.4 Operational Risk\textsuperscript{16}

Not much is talked about the operational risk neither there are much complex methods that are adopted for the same. The operational risk is the risk arising from inadequate or failed internal processes, people and systems or from external events. This includes legal risk but excluded strategic and reputational risk. The measurement methods that are adopted for the same are (i) the Basic Indicator Approach (BIA); (ii) the Standardised Approach (TSA); and (iii) Advanced Measurement Approaches (AMA). The banks are basically using Basic Indicator approach for the calculation. As a point of entry for capital calculation, no specific criteria for use of the Basic Indicator Approach are set out in these guidelines. Once the bank has calculated the capital charge for operational risk under BIA, it has to multiply this with 12.5 and arrive at the notional risk weighted asset (RWA) for operational risk. This is all about the first pillar of the Basel 3 norms. The Second pillar deals with the SREP process as mentioned in the accord.

\textbf{1.5.2 Pillar 2- Supervisory Review and Evaluation Process:}

The SREP process deals with the internal matters of the bank for the purpose of this a method of Internal Capital Adequacy Assessment process is used. The main aspect of SREP is to see that the banks have enough capital to meet any unforeseen expenses. In this case we may say its same as that is done in Pillar 1 but the major difference in ICAAP is it covers those areas which are not fully captured under the capital adequacy norm of Pillar 1.

The main four principal that are laid by the Basel accord on which it functions are as follows:

Principle i: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

Principle ii: Supervisors should review and evaluate banks’ internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with the regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

\textsuperscript{16} RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel 3 Capital Regulations (July 1, 2015)
Principle iii: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle iv: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

The above mentioned four principal are the reason of existence of Pillar 2 from this where 1st and 3rd principle deals with the expectations of the supervisor the 2nd and 4th deals with the banks expectations from the supervisors. The pattern of risk that are covered under this pillar include liquidity risk, settlement risk, reputational risk, risk of underestimation, model risk etc. thus making SREP and ICAAP an important part of the Pillar. The SREP consists of a review and evaluation process adopted by the supervisor, which covers all the processes and measures defined in the principles listed above. Essentially, these include the review and evaluation of the bank’s ICAAP, conducting an independent assessment of the bank’s risk profile, and if necessary, taking appropriate prudential measures and other supervisory actions. The ICAAP plays the major role in depicting the picture of the bank to the RBI as it covers the following points under its parameters.

i. General firm wide risk management principles
ii. Board and Senior Management Oversight
iii. Policies, Procedures, Limits and Control
iv. Identifying, measuring, monitoring and reporting of risk
v. Internal controls
vi. Submission of the outcome to RBI

As all these major things are covered under ICAAP it is advised by the RBI that the board of directors of the banks must at least assess the document once a year to see that the ICAAP implement by the bank will successfully achieve the target envisaged by the board. In short for Pillar 2 one can say that it deals with firm wide governance and risk management by mitigating various unattended risk, it capture various off balance sheet items to thus better risk calculations. It takes care of corporate governance and supervisory review and its role in sound management of the banks. This is the pillar which deals with the human interface of
the banks and also takes into account the staff movement and remuneration system of the bank.  

1.5.3 Pillar 3 - Market Discipline

This pillar mainly deals with the publicizing of the data. In order to ensure comparability of the capital adequacy of banks across jurisdictions, it is important to disclose details of items of regulatory capital and various regulatory adjustments to it. Further, to improve consistency and ease of use of disclosures relating to the composition of capital and to mitigate the risk of inconsistent reporting format undermining the objective of enhanced disclosures, banks across Basel member jurisdictions are required to publish their capital positions according to common templates. It is said under this pillar that a data that the bank feels can affect it may not be published but banks need to publish the data in relations to its capital, investments etc. once in a year.

Banks are required to disclose a full reconciliation of all regulatory capital elements back to the balance sheet in the audited (or unaudited) financial statements. This requirement aims to address disconnect, if any, present in a bank’s disclosure between the numbers used for the calculation of regulatory capital and the numbers used in the balance sheet. Banks follow a three step approach to show the link between their balance sheet and the numbers which are used in the composition of capital disclosure template.

Step 1: banks are required to disclose the reported balance sheet under the regulatory scope of consolidation.

Step 2: banks will have to expand the lines of the balance sheet under regulatory scope of consolidation to display all components which are used in the composition of capital disclosure template, and

Step 3: finally, banks will have to map each of the components that are disclosed in Step 2 to the composition of capital disclosure template.

Thus one can say that Pillar three deals with the disclosure requirements of the bank. The requirement deals with enhanced disclosure on the details of the components of regulatory

17 RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel III Capital Regulations (July 1, 2015)
capital and their reconciliation to the reported accounts will be required along with the explanation how a bank calculate its regulatory capital. So in short we can say that the pillar deals with the disclosure of various components of the balance sheet which are used in various calculations under various schedules in the templates as prescribed by the accord.

Basel 3 did not limit itself only to these three pillars it came up with certain important ratios or says buffers to mitigate the risk that arise in banking these are basically divide into 3 parts i.e.

1. Capital Conservation Buffer
2. Leverage Ratio
3. Counter cyclical buffer

We will try to have a brief look of each of the three in brief.

**1.5.4 Capital Conservation Buffer (CCB):**

The modus operandi to start this buffer was to build up capital when the banks are going through the normal phase which can be used to draw down losses during the stressed period. But along with it this s pre mentioned that the banks must not use this buffer unless the situation is too stressful. In case the buffer has been drawn down the bank must look to the ways to replenish the same. The best way to maintain the reserves from the existing profit by making buy back of shares, reducing dividend or reducing bonus of the employee’s bank can also go for new capital issue for this purpose but marinating high return in stressful situation by introducing new capital is not an advisable option. Bank also needs to see that they do not use this buffer to meet the competition from other banks. The capital conservation buffer can be drawn down only when a bank faces a systemic or idiosyncratic stress. A bank should not choose in normal times to operate in the buffer range simply to compete with other banks and win market share.

Banks need to maintain the CCB at the level of 2.5% comprised of the CET 1 capital above the minimum capital requirement of 9%. Capital constraints will be applicable to the bank as and when they fall in the range, but that does not mean that they will not be allowed to do the
business, the banks will carry out the business as in the normal way only the distribution of the funds in the form of dividend and bonuses will be affected. 18

1.5.5 Leverage Ratio:

The underlying reason for the establishment of the leverage ratio was the high amount of leverage that exists in on and off balance sheet during the time of stress. The Basel 3 has given a simple and transparent non risk based leverage ratio it is calibrated to act as a credible supplementary measure to the risk based capital requirements and is intended to achieve the following objectives:

a) Constrain the build-up of leverage in the banking sector to avoid destabilising deleveraging processes which can damage the broader financial system and the economy; and
b) Reinforce the risk-based requirements with a simple, non-risk based “backstop” measure.

The method that is used for the calculation of leverage ratio is as follows

\[
\text{Leverage Ratio} = \frac{\text{Capital Measure}}{\text{Exposure Measure}}
\]

The Basel committee has proposed to maintain the same at the level of 3% while the current leverage position of the Indian banks is 4.5%. The framework used for the consolidation is same as that applicable to risk based capital framework. The capital measure is same as that is applicable to Tier 1 risk based capital.19

1.5.6 Counter Cyclical Buffer:

Losses incurred in the banking sector can be extremely large when down turn is preceded by a period of excess credit growth. The CCB aims to ensure that banking sector capital requirements take account of the macro financial environment in which bank operates. It will

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18 BCBS, Revised Basel 3 leverage ratio framework and disclosure requirements(June 2013) and BCBS, Basel 3 leverage ratio framework and disclosure requirements. (January 2014) and RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel III Capital Regulations (July 1, 2015)

19 RBI/2015-16/58 DBR.No.BP.BC.1/21.06.201/2015-16, Master Circular – Basel III Capital Regulations (July 1, 2015)
be developed by national jurisdiction when excess aggregate credit growth is judged to be associated with a build-up of system wide risk to ensure the banking system has a buffer of capital to protect it against future potential losses. This focus on excess aggregate credit growth means that jurisdiction is likely to only need to deploy the buffer on an infrequent basis. The buffer for internationally active banks will be weighted average of the buffers deployed across the entire jurisdiction to which it had credit exposure. This means that they will likely find themselves subject to a small buffer on a more frequent basis, since credit cycles are not always highly correlated across jurisdiction. Counter cyclical buffer will vary between 0% and 2.5% of risk weighted assets depending on their judgement as to the extent of the build-up of system wide risk. To give banks time to adjust to a buffer level a jurisdiction will pre-announce its decision to raise the level of the countercyclical buffer by up to 12 months. Decisions by a jurisdiction to decrease the level of the countercyclical buffer will take effect immediately.

The other two important ratios that are included in the Basel 3 norms for the first time are Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). This is a new dimension added to the concept of Basel norms other than the three pillars as use to be a part prior Basel Accord.

1.5.7 Liquidity Coverage Ratio:

The main objective of LCR is to maintain a level of unencumbered high quality liquid assets which can be converted into cash to meet the 30 days requirement in a situation of highly stressed liquid position as specified by the supervisors. It is mentioned in the guidelines of the norm that the reserves must be sufficient to meet the requirements of 30 days as it is believed that it’s an enough duration in which appropriate corrective steps can be taken by the supervisory authority

According to the definition of LCR it can be calculated as

\[
\text{Liquidity Coverage Ratio} = \frac{\text{Stock of HQL assets}}{\text{Total net cash outflow over the next 30 calendar days}} > 100
\]

The LCR builds on traditional liquidity “Coverage Ratio” methodologies used internally by banks to assess exposure to contingent liquidity events. Banks are expected to meet these requirements continuously and hold a stock of unencumbered high quality liquid assets as a
defence against the potential onset of severe liquidity stress. Further the accord advises the supervisory authority to define the stress scenario in which situation exactly the fund will be used. In Indian context the Indian banks had been maintaining this ratio since past many years but now they are facing a major setback on the issue to reporting and maintenance according to the accord templates.\(^\text{20}\)

1.5.8 Net Stable Funding Ratio (NSFR)\(^\text{21}\)

The NSFR is defined as the amount of available stable funding (ASF) relative to the amount of required stable funding (RSF). The ASF is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The RSF calculation is a function of the liquidity characteristics and residual maturities of the various on- and off-balance sheet assets held by a specific institution. The ratio should be equal to at least 100% on an on-going basis. It is the intention of the Committee that the NSFR, including any revisions, will become a minimum standard by January 1st 2018.

\[
\text{NSFR} = \frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} > 100
\]

The stable funding includes capital, preferred stock with maturity of more than or equal to one year. Liabilities with effective maturities greater than or equal to one year. Portion of non-maturity deposits and term deposits with maturity less than one year that would be expected to stay with the bank for an extended period in a particular stress event and the portion of wholesale funding with maturities less than one year that is expected to stay with the institution for an extended period in a particular stress event. Basel 3 has given out various factors to decide the risk category to maintain liquidity which is divided into RSF and ASF factors the below tables give the complete information about the same.


\(^{21}\) BCBS, Basel3: The Net Stable Funding Ratio. (October 2014)
Conclusion:

The chapter deals with the various Basel norms and the Indian banking sector as the major part of the study is Basel 3 norms it is discussed in detail from the Indian perspective. Till now we were able to see that Indian banking is much different from the banking worldwide but that does not affect the implementation of the international accord by the Indian banks. The previous norms that failed worldwide affected the Indian banking industry also but the effects were not that devastating. While discussing the Basel 3 accord from the RBI perspective it was also seen that the norms laid down by RBI are stricter than that given by the accord. Like for a simple example the buffers and capital ratios that are introduced in the accord are already in existence in the Indian banking system.