CHAPTER - VII

SUMMARY AND CONCLUSIONS

7.1: The Background

The establishment of new banks (such as RRBs, LABs, Payment Banks, Small Finance Banks etc.), changing bank policies, programs, operations and procedures so as to strengthen the banking structure in India with a view to cater to the banking needs of common man have been largely mandated by RBI based on the specific recommendations of expert Committee Reports. The restructuring of the then Imperial Bank of India and renaming it on July 1, 1955 as SBI, the nationalization of 14 large commercial banks in 1969 and 6 more again in 1980, mooting of Lead Bank Scheme in December 1969 and evolving there in a strong mechanism of aligning particularly the PSU banks with the socio-economic plans of GOI for the faster development of rural economy of India. Last but not the least, with the advent of IT enabled core banking Platform, the Indian banking is now not only integrated with the global banking systems but also keeping pace with the best global banking standards/practices by offering a bouquet of customer friendly world class product and services through various alternate delivery channels.

The regulatory framework or Norms for banks having strong international presence, emphasizing particularly on adequacy of capital, evolved and prescribed by the BCBS of BIS is popularly known as Basel Accord. The experience of successful implementation of these international banking Basel- Norms I and II is a well-documented in its significance as India could withstand the GFC which crippled even the many developed economies in the world including USA. Having tasted the success (as not a single commercial bank in India was affected by the global melt down) in the implementation of earlier Norms, India readily agreed to implement the new set of Basel-III Norms.

The Basel-III Norms aim at raising the resilience of the banking sector by strengthening the regulatory capital framework, building upon the three pillars of Basel-II framework. The reforms seek to raise both the quality and quantity of the regulatory capital base and enhance the risk coverage of the capital framework. They are underpinned by a leverage ratio that serves as a backstop to the risk-based capital measures, is intended to constrain excess leverage in the banking system and provide an extra layer of protection against model risk and measurement error. Finally, the Norms introduced a number of macro-prudential elements into the capital framework to help contain systemic risks arising from pro-cyclicality and from the inter-connectedness of financial institutions.

Basel-III document titled “A Global Regulatory Framework For More Resilient Banks and Banking System” was introduced in December 2010 and revised in June 2011 is the latest regulatory framework stipulated by the BCBS of BIS comprising of Central Banks and Supervisory Authorities of 10 countries also known as G-10 countries, Head-quartered in Basel, Switzerland. The BIS developed a new set of regulations as Basel-III on December 16, 2010, to alleviate the shortcomings of the previous regulations I and II. Basel- III is by far one of the most revolutionary regulations in the banking industry globally. The Basel-III framework focuses on enhancing the banking sector's safety/liquidity and stability/solvency by emphasizing the need to improve the quality as well as quantity of bank's capital components by creating CCB and CCCB and maintaining leverage ratio, following liquidity standards and bringing transparency through enhanced disclosures. It enforces risk management at micro (individual bank's operations) level as well as systemic risk management at macro (banking industry) level. Basel-III signed in 2009-2010, goes live global from January 1, 2018. Thus, now all banks with international presence are actively busy in designing and devising their capital structure to be fully compliant by January 1, 2018.

Risk and risk taking is an inherent part of banking business activity. Banking business due to its nature is exposed to various types of risks. The business of banking is accepting deposits largely from the public for the purpose of lending. Banks are therefore inherently exposed to various types of risks such as Liquidity risks (in which case banks are unable to repay the withdrawal demand of deposit at counter or in bank clearing centers), Credit risks (which arises when money lent may not be recovered from the borrower customers as per schedule of repayments) and, last but not the least, Market risks (which essentially arises due to changes in exogenous factors such as changes in monetary policy, exchange rates, market competitions etc.) The significance of risk management in banks is further heightened as India adopts and adepts to International best practices and norms amidst rising complexities and size, global competition and increasing deregulation.

RBI issued draft guidelines for implementation of Basel-III Norms on December 30, 2012 and final guidelines on May 2, 2013. These Norms have been mandated by RBI to be implemented progressively in India with effect from April 1, 2013 and all banks are required to be fully compliant by March-end 2018. Recently, RBI relaxed the time line for banks by one year i.e., now by March-end 2019 all banks in India have to be Basel-III compliant.

7.2: Objectives of the Study

Broadly, the aim of study is to examine provisions of Basel-III Norms so as to be helpful in deepening and broadening the implications in the realm of qualitative aspects as well as in its compliance provisions. The focus of the study is to find the likely impact of Basel-III Norms on strengthening the banking system in India and its likely change in the structure (as proposed by the study) so that banks would be better equipped to withstand the economic turn-down and even sectorial crisis, if any arises.

The study attempts to examine the current capital structure of banks and ascertain particularly of PSBs capital adequacy so as become Basel-III compliant by March-end 2019. Study attempts to examine various migration strategies adopted by banks in India to strengthen particularly the required capital base during the years 2009-2014 (March end). Based on the experience gained, study aims to propose 4 alternate scenarios to augment more realistic required quantum of capital base of banks during the years 2015-2018 (March-end).

The study also makes a humble attempt by developing appropriate parameters of mergers of existing 27 PSBs into five big banks on 1-4-2018 so that these banks would have good financial strength to become Basel-III compliant by March-end 2019 as well as to qualify for (in due course) to be reckoned as D-SIBs. Since PSBs in India have majority share holding by GOI, the study attempts to examine a novel concept of deficit capital infusion during the year 2018-2019 into these five D-SIBs on repatriation basis so as make these five D-SIBs banks Basel- III compliant in the capital adequacy by March-end 2019. The study then aims to propose that after the five years period of implementation of Basel-III Norms and gaining financial strength by March-end 2024, these D-SIBs would start repaying in the equal amount the same injected capital during 2018-2019 to GOI from April 2024 to March-end 2034.

The aim of present study is also to help bank regulators as well as policy makers in banks in their management of various risks as well as procuring of capital. It may also help the researchers in academic institutions and bank economists as reference-resource in understanding of the implications of Basel-Norms.

The specific objectives of the study are as under:

To study the current capital structure and examine the capital adequacy of banks in India so as to become Basel-III compliant by March-end 2019.

To review the available literature on evolution of Basel Norms and also analytical framework of Basel –III as provided under the BIS's Working Papers and other studies so as to examine its likely challenges in its implementation in India. And, last but not the least,

To suggest the possible suitable emerging institutional framework by restructuring through mergers of the all existing 27 PSBs into big five PSBs a kin to D-SIBs as envisioned in Basel-III.

7.3: Significance of the Study

The contribution of study is to examine in detail likely impact of Basel-III Norms on strengthening the banking system in India and its likely change in the structure (as proposed by the study) so that banks would be better equipped to withstand the economic turn-down and even sectorial crisis, if any arises.

A systematic attempt has been made in this study to examine the current capital structure of banks and ascertain the capital adequacy so as to become Basel-III compliant by March-end 2019. Study attempts to record and interpret the migration strategies adopted by banks in India, using Annual Reports of banks as source of data information to strengthen the required capital base during the years of 2009-2014 (March end). Based on the empirical experience gained during the preparatory years of 2009-2014, study aims to propose 4 alternate scenarios to augment more realistic required quantum of capital base of banks during the years 2015-2018.In all the 4 varied scenarios, study concludes that all 27 PSU Banks are highly capital deficient in all the 4 scenario of study whereas all new generation private sector banks are adequately surplus in all the 4 different scenarios under study. Thus, it is heartening to note that these private sector banks as group are expected to be Basel III compliant by March 2019. However, all PSU Banks need heavy capital infusion, so as to be Basel III adequate by March-end, 2019.

To achieve the requisite capital, an attempt is made by developing appropriate parameters of mergers so as to reap the benefits of different synergies of merger of existing all PSU Banks into 5 Big Banks as on 1-4-2018 so that these banks would have good financial strength as well as to qualify for (in due course) to be reckoned as D-SIBs as envisioned in Basel-III. Since PSBs in India have majority share holding by GOI, the deficiency in capital adequacy study suggests that the same be contributed by GOI during the year 2018- 2019 on 'Repratiation' basis.

The novel proposal of deficit capital Infusion into these five PSBs D-SIBs by GOI on repatriation basis have been calculated based upon uniform average growth rate of RWAs, Profit growth and Profit plough back. Thus, the implications and potential challenges for banks in India in migrating to Basel- III compliance have been examined in depth, primarily for all PSBs in India. And,

Finally, the study also proposes that after the five years period of implementation of Basel-III Norms and gaining financial strength by March-end 2024, these D-SIBs would start repaying in the equal amount the same injected capital to GOI in next ten years from April 2024 to March-end 2034.

The important contributions of the study in brief, are summarized as under:

1. Explains Complex concepts in simple language: The complex provisions on Basel-III have been explained in simple words which would help the practicing bankers and bank management equally as well as the research scholars in academic institutions.
2. Evaluates systemic risk provisions & its efficacy: The risk management provisions including pro-cyclicity etc. has been explained in simple and lucid manner and its efficacy examined and presented.

3. Traces out migration strategies adopted by banks in India (2008-2014): Perhaps for the first time an attempt has been made in India to study systematically the migration strategies adopted by banks in India to boost the capital and capital adequacy ratio during the preparatory years (2008-2014) in efforts to migrate to Basel-III
4. Examines the resultant dynamics of changes: The study also examines the dynamics of changes that took place in banks in India from 2008-2014 and also consequent changes in assets, RWAs, riskiness of assets etc.
5. Estimate the likely bank capital deficit in India as prescribed under Basel-III Norms by March-end 2019 by taking 4 varied assumed scenarios.
7. Proposes a concept of merger of existing PSBs into 5 big banks so as to make them a kin to D-SIBs as envisioned in Basel-III provisions.
8. Also proposes another unique concept of capital infusion by GOI into these new merged banks on “Repatriation” basis.
9. Finds that Basel-III Norms including capital adequacy ratios shall be achieved by all PSBs with help of GOI infusion. Initially grave concerns were expressed that banks in India may face an uphill task of attaining the capital ratio of 11.5% by 2019. But deliberate proactive attempts taken by all the banks and despite contamination of assets in recent years (2015-16) across all banks, all PSBs are expected to achieve the capital ratio but only through capital injected by GOI.
10. Thus study concludes that Basel–III shall have in general, positive impact on banks in India but the monitoring of systemic risks and effective forecast for the triggers for counter cyclical capital conservation buffer (CCCB) etc. shall be quite challenging for both the regulatory and equally for monetary authority in India.

7.4: Data Source and Research Methodology

Basel-III Norms were formally published in December 2010 yet, the salient provisions were in public domain for discussion and suggestions from 2008-09 itself. So, the year 2008-09 was ideally suited to be taken as base year for the study of the preparedness of banks in India for migrating to Basel-III Norms. Further, as said earlier Basel-II proposals were effective worldwide in 2004 and India Implemented in 2009. The New Capital Adequacy Framework (NCAF) for complying with the first pillar (capital adequacy based on Credit-risks, Operational risks and Market risks) and Supervisory Review Process (SRP) & Internal Capital Adequacy Assessment Process (ICAAP), which together form the second pillar of the Basel-II capital adequacy framework (Both pertain to quantifying capital requirement and putting in place sound risk assessment and management systems) were mandated by RBI to be implemented from 1st of April-2008. And, Year 2008-2009 is the immediate aftermath of GFC year so it was worthwhile to know how banks are shaping afresh. We therefore, collected Annual Reports of all banks in India from the year April 2008-2009 to study the preparedness of banks in capital adequacy/identifying the migration strategies adopted by banks in India. Further, every bank under the RBI guidelines effective March-end 2009, was required to make mandatory disclosers in various Basel Disclosure Formats (DF-1 to DF-13) as part of balance-sheet in their Annual Report. The same has been used in this study as the basis of our source of each of the bank data information. This study therefore, relies mainly on secondary source of data information drawn from published Annual Reports of Banks.

Since our study is exploratory research in nature, its imperative therefore, that this study traces and evaluates the concrete steps taken by banks to strengthen their capital base in India. From the published Annual Reports of banks in India, an attempt was made to undertake an analysis of migration strategies adopted/preparedness of banks from the DF-1 to DF-13 between April 2008 to 2014 March end. We found that the relevant Basel Disclosure data information details were available for all the years of study period only for the following 25 banks consisting of A) 12 nationalized banks, of which 8 were nationalized in July 1969 and other 4 were nationalized in April 1980) and B) IDBI Bank Limited; **(**Accordingly, data of these13 Banks (out of 20) have been used in the statistical analysis. This bank group shall be called as “Other PSBs Banks Group”**),** C) all 6 banks of State Bank Group and D) another 6 new generation private sector banks (called New Generation Pvt. Banks Group), established mainly in the post reform period of the last decade of bygone century. It’s heartening to note that these 12 nationalized banks for which necessary Basel Disclosure data information details were available and one IDBI Bank Limited together comprised the 78 percent of market share of all 20 (19 nationalized and one IDBI Bank Limited) banks in terms of business (Total Deposits plus Outstanding Advances) as on March-end 2009. Similarly, for the same period end, these 6 new generation private sector banks be treated as true representative as these together comprise the 78.5 percent of the market share as on 31-3-2014 among all (New and Old together) private sector banks.

As noted earlier, RBI mandated all banks in India in 2013, to disclose in the Annual Report (various exposures) as per various Basel Disclosure Formats (DF-1 to DF-18) which has direct implications on the capital charge to determine the capital adequacy. The scope of our study aims to include all banks in India. Study covered all the existing 27 PSBs and have deliberately retained for the purpose of consistency the same 6 New Generation Private Sector Banks Group which we studied earlier in the period of preparedness from 2008 to 2014 period. Thus, in the study of determination of capital deficiency, to make banks in India as Basel–III compliant, we have covered all these 33 banks in the study. We call all these banks covered in the Study as sample banks.

To examine the likely capital deficiency in banks (sample banks) so as to be Basel-III compliant by March 2019 as mandated by RBI in India, we based the projections of required capital adequacy for each of 33 banks using the published Balance Sheet for the year 2014-2015 March-end and the same has been projected annually to get a reliable estimates, till end March 2018. The projections of resultant probable capital requirement/shortages in each of banks is arrived at by taking as many as 4 varied scenarios of combinations of percent growth in balance sheet figures of i) RWAs, ii) Profit, and iii) Profit Plough-Back. All the four scenarios are based on the actual observation made in the analysis of banks preparedness towards capital adequacy during the period 2009-2014 so as to be reasonably justified to assess the likely requirements of capital.

In all the 4 varied scenarios in different combinations of parameters, we found that all 27 PSU Banks are highly capital deficient in all the 4 scenario of study whereas all the 6 New Generation Private Sector Banks Group are surplus in all the 4 different scenarios under study. Thus, it is heartening to note that these New Generation Private Sector Banks Group are expected to be Basel-III compliant by March 2019. However, all PSU Banks need heavy capital infusion, so as to be Basel-III adequate by March-end, 2019. This amount of deficiency in capital adequacy at the year-end 2018-2019, study suggests that the same be contributed by GOI on Repatriation basis.

The merger proposal as presented in Chapter 6, of existing all 27 PSU Banks is based on combination of following five parameters of A) almost equal geographical presence, B) almost equal business size, C) almost amount of equal capital, D) common technology platform, and also E) to form almost Equal Capita Ratios. All the 27 PSU Banks are planned to merge on 1-4-2018 to form 5 Big Banks known as D-SIBs and to emerge as Basel-III compliant by March-end 2019. The novel proposal of deficit capital Infusion into these five Big Banks D-SIBs by GOI on repatriation basis has been calculated based upon uniform average growth rate of RWAs, Profit growth and Profit plough back. The study finds that after such merger the new Big Bank A led by SBI shall remain “big-brother” and shall be having almost double the capital than of other 4 new D-SIBs Big Banks B, C, D and E.

Statistical tools and analysis:

I) For study of dynamics of changes adopted by all the 3 Bank-Groups (2009 to 2014): statistical analysis has been done for A) across the years & B) across banks as under:

Part A: Analysis across the years: In this section analysis across the year has been performed under two parts:

a. Descriptive analysis: in this section of analysis mean, standard deviation, minimum, maximum and important three percentiles has been presented and interpreted.

b. Analysis of change across the year: To evaluate significant increase/decrease over the years, Regression analysis with dummy variables has been performed. ANOVA for Model fit, Model summary and coefficient tables are provided and interpreted.

Finally, the descriptive analysis and regression analysis has been done separately for all sample banks under all the three Banks Group's.

Part B: Analysis across the banks: In this section analysis across the year has been performed again under two parts:

a. Descriptive analysis: in this section of analysis mean, standard deviation, minimum, maximum and important three percentiles has been presented and interpreted.

b. Analysis of differences between the banks: to find out 'significant' difference between the banks ANOVA and post hoc analysis by Bonferroni test has been performed and interpreted.

II) For Study of estimated Capital Deficiency by March 31, 2019:

Statistical tool of extrapolation is used to estimate the likely capital deficiency taking 2014-2015 the actual Annual Reports data as base for all 27 PSU Banks for the annual period end March 31, 2019 by assuming the most probable scenario called scenario-III of a certain uniform linear growth rates in annual Profits (10%); Profit plough-back (80%) as capital and RWAs growth (10%).

Major summary and findings

A brief summary of the findings of the study on a topic of this exploratory type of research is presented here as under in a capsule form for easy comprehension by the bankers in the policy making positions, research scholars alike. Basel-III Accord was signed on December 2010 and was mandated to be implemented globally from January 2018. Whereas, under the RBI's revised guidelines it is to be implemented by banks in India from by March 2019. Thus, Banks were given sufficient time period to realign their business and achieve the requisite CAR of 11.5%.

Reviewing a global study documenting the experience of Major 94 banks with international presence located in developed as well as in emerging economy, conducted by BIS (in the Working Paper 443) found the capital ratios of all banks have increased during the study period of 2009-2012. Further, the study found that the augmentation of capital has come mainly from the profit plough back into capital.

Taking clue from the above study, we also examined the likely strategies adopted by banks in India using the secondary source of data information collected from the annual reports and Basel Disclosure formats of the systematically selected sample banks for all the years during the preparatory period of 2009-2014 about the following likely strategies to boost CAR:

Summary of dynamics of strategies to boost CAR during the preparatory years 2009-2014.

1 Boosting capital by higher plough back: our study finds that sample banks have ploughed back more than 3/5 th of annual profit into capital keeping in trend with the global peer banks.

2. The study finds that all sample banks have consolidated their T1 capital during the preparatory years and have more than 55% proportion of T1 in total capital.

3. The study finds that CC-credit remain the dominant capital charge for various risks and CC-credit is more than $4/5^{th}$ of the total capital charge for the sample banks during the preparatory years.

4. By and large majority of the sample banks have tried to slow down assets growth. the mean growth rate of assets of other PSBs is found to have come down from @22.2% in 2009-10 to 13.8% in 2013-2014 and similarly for State Bank Group the respective growth rate has come down from 16.9% to 6.8 %. New Private bank group have also shown a decline in growth rate of assets from 22.7% to 6.2% during the same period. And, lastly,

5. Similarly, Sample banks as expected to boost CAR are found to have reduced growth rates of RWAs during the study period (barring of only 4 Banks Viz. BOI, Canara Bank, SBT and Kotak Mahindra Bank Ltd.

Summary of Estimation of Capital Deficiency

This study under most probable scenario III finds that all 27 PSU banks would in aggregate will have a capital deficit of estimated Rs. 180k Crores as on 31/3/2019 so as to be Basel-III compliant on the mandated date. Study also finds that sample banks in the new Private bank group are adequately capitalized in all the 4 alternate scenarios and as such the implication of Basel-III on banks in India converges into challenges of determining (estimating) and same amount to be injected by GOI so as these banks are found to be capital compliance under Basel-III as mandated by RBI time line of 31-3-2019.

Summary of Merging 27 PSU Banks and Formation of 5 D-SIBS

The latest Basel-III Accord strives to make banks financially strong and resilient to withstand shocks of crisis if arises any. All the 27 PSU banks were estimated to be capital deficient by mandated March end 2019 period. However as GOI has majority stake in all the PSU banks study strongly proposes that all the 27 banks be amalgamated and restyled by forming 5 new BIG Banks as on 1-4-2018. Study further determined that to become a kin to D-SIBs and financial super markets these new Big Banks are estimated to be capital deficit by Rs. 270 K Crores, which is arrived at by calculating a higher amount of capital @ 12.5% of combined RWAs. Accordingly, the study estimates that with such higher capital infusion of Rs. 200 Crores (Gross estimated deficit of Rs. 270K Crores minus Rs. 70 K Crores already Committed from the budgetary allocations) these proposed new 5 Big Banks would be able to emerge so strong that they shall be able to repay the Rs. 200K Crores estimated capital infusion to GOI in next 10 years commencing from March 2025 to 2034 in an equal annual installments after 5 years of period of consolidation from 2019 to 2024. These newly formed all 5 Big Banks are expected to remain financially strong enough to maintain higher CAR of about 12.5% throughout and as such eligible to be identified as D-SIBs by RBI in due Course.

Thus, Basel III Norms will have a very conducive and good impact on banks in India as it seeks to make banks strongly capitalized and also puts sound risk management systems, procedures and structures in place so that banks will be resilient to withstand the economic down turn, if any.