# CHAPTER II

THE PROBLEM/HYPOTHESES

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THE PROBLEM/HYPOTHESIS

1. Introduction

The main charge against Basel II is its procyclical nature on account of being risk sensitive. During the bullish phase in the market, good performance in the banking sector can enable banks to raise finance easily; banks are not required to raise additional capital. During the bearish phase or in phases of stagflation or deflation wherein markets are capital deficient, Basel II requires banks to raise additional capital. The financial crisis in US pronounced the difficulty of banks in raising additional capital from the market during stressed times which forced major international banks into a vicious cycle of deleveraging, thereby hurling global financial markets into seizure and the world economies witnessed a financial catastrophe.

The second charge against Basel II is that revisions from Basel I have made it more risk sensitive, though it did not lead to any significant changes in the definition and composition of economic or regulatory capital to reflect the changing market dynamics. The third charge against Basel II concerns leverage. The risk of excessive leverage would be automatically leveraged through risk based capital requirement. Similarly, Liquidity risk was not covered under Basel II. Since solvency risk can be triggered by liquidity risk, if left unaddressed, this proved to be the undoing of virtually every bank that came under stress in the depth of the crisis. Finally, close coordination amongst international regulators with respect to sharing of information and actions will enable to seek solutions mutually. Building blocks of ‘global regulatory and supervisory convergence’ can be rethought for providing faster, physical, pragmatic, feasible and efficient solutions, in particular for complex supervisory cross-border consortiums of banking.

Therefore, researchers world over have analysed several reasons which have led to failure of the Basel II norms to safeguard banks, the research aims at critically examining the various parameters of the Internal Capital Adequacy Assessment Process outlined under the accord to maintain adequate capital as well identify, measure and mitigate the Pillar I & III risks identified by the accord and make the banks resilient to economic downturns and thereby ensuring financial stability in the economy locally as well as globally.

The research also provides an insight into Basel III norms which are soon going to be implemented in the banking sector in India, and already in process in the global banking sector so whether Basel III can be a remedy to the drawbacks of the Basel II norms.
2. **Research Methodology (Description)**

I. **Research Design**

The research project is a descriptive quantitative research as the research revolves around the factors affecting the capital adequacy assessment process in banks it involves study of numericals viz. ratio of non-performing assets, capital adequacy ratio, assessment of risk weighted assets with respect to credit, market and operational risk, assessment of risks under foreign exchange, equity, derivatives and other exposures. The problem analysed under the research is whether banks are financially stable and profitable to bear all the risks posed to them despite keeping huge amount of funds idle as reserves for risky assets as per the concordat. This research design helps to obtain answers to bank’s challenges and difficulties in setting up internal models or methodologies for assessing risk and assigning capital.

II. **Source of data**

For the purpose of research, data is collected from primary as well as secondary sources. Primary data has been collected through questionnaires and personal interviews. Secondary sources include several journals, books, magazines, financial and business newspapers, research papers, Basel disclosures of banks in the annual reports, reports of credit rating agencies, RBI circulars and bulletins.

To probe into a risk managers’ forum is a difficult process and very challenging too. The subject matter is extremely confidential and sensitive to each bank under study. Though the basic purpose of this research is purely from the academic perspective yet the risk managers and the officials of the regulatory authorities preferred to maintain secrecy of their practices but all efforts were made to convince them and obtain requisite information for the research. A detailed questionnaire encompassing all the factors affecting the capital adequacy assessment process (ICAAP) in a bank was prepared under the guidance of chartered accountants who are the auditors examining the ICAAP of scheduled commercial banks. Presently, in India more than 60 scheduled commercial banks comprising of nationalised banks, private banks, regional rural banks and foreign banks operate around in the country segmented in different branches. With a view to make the study comprehensive of particularly studying the impact on the capital adequacy in banks 12 banks were selected out of 27 nationalised banks, 12 banks from the private sector out of 22 banks (inclusive of old and new, greater and non-greater private banks),
12 foreign banks out of 20 banks operating in India were selected. Responses were gathered from risk managers, heads of loan department, investment and treasury department, retail banking officers of these sampled banks, auditors, officials from the financial stability unit at the Reserve Bank of India.

The framework of the research questionnaire is designed on the lines of the three Pillar approach of BASEL II.

The questionnaire is divided into the following sections:

1. Analysis of Tier I and Tier II capital of banks
2. Pillar I risks – Credit, Market and Operational
3. Comparative trend of Ratio of Capital to Risk Weighted Assets over the past five years (post global recession)
4. ICAAP
5. Pillar II risks – liquidity, settlement, reputational, regulatory, strategic etc.

III. Sampling and Data Collection

On account of time and monetary constraints governing research, carrying out a census survey of all banks operating in India across public, private, foreign was not possible. Therefore data was collected through stratified sampling technique wherein 12 banks from each segment were selected for the purpose of research. Regional Rural banks and Co-operative banks have been excluded from the purview of research as these banks are exempted from the implication of Basel guidelines as per RBI guidelines.

Sampling Frame

❖ Scheduled Commercial Banks
- Private – 12
- Nationalised – 12
- Foreign – 12

❖ Market Participants
• Analysts – 50
• Credit Rating agency officials – 10
• RBI and other regulatory officials – 10

The stratified sampling technique was applied for selecting the scheduled commercial banks from each segment under the samples. Banks qualifying the following criteria were selected:

b. Expansion, diversification in the product line and growth prospects of the bank.
c. Size of the banks – the primary research included small, medium and large sized banks.
d. Infusion of base or permanent capital by either the promoting group or retail investors from the open market.
e. Earnings (profit or loss made).
f. Non – performing assets
g. Penetration of banks across the length and breadth of the country.

A preliminary pilot study was conducted wherein responses were collected from the auditors of the ICAAP. As per their responses and suggestions necessary changes were made in the questionnaire in order to make it more industry competent.

All respondents were personally visited for data collection and the structured questionnaire was administered. The use of the questionnaire though restricted the responses of the respondents thereby the researcher had to rely on the informal discussion which proved extremely useful. Since the questionnaire required ample data revolving around the history, present scenario and the future of the bank practices as per Basel guidelines bank’s Basel disclosures on its website, discussions with officers across various departments through telephone and email provided valuable information. The data was collected between June 2012 to January 2013.

IV. Hypothesis of the study

H₀₁: The banks are maintaining their CRAR at 9% and complying with Basel norms.
H₀₂: The banks will not turn sick or collapse despite following Basel norms and maintaining sufficient capital for the risks banks are exposed to.
V. **Statistical Tools and Measures**

The following statistical tools were used for analysing the primary data:

1. Percentages and Ratios
3. Chi-square tests for hypothesis testing.

The first hypothesis has been statistically tested and justified through the above mentioned tools and measures however the second hypothesis has not only been statistically tested but also justified through case study analysis. Case studies of global recession 2008 and Eurozone crisis have been used to negate the second hypothesis of the research.

**3. Details**

The following list entails the different aspects of the accord covered in the thesis:

It deals with the introduction of Basel guidelines and a deep insight into the Basel Committee for Banking Supervision. An extensive literature survey with methodology of the research along with significance of the study comprehends the chapter. Further, objectives of the study focussing deeply on the final outcome of the project have been enlisted showcasing the research to have good utility in the banking sector.

The formula for arriving at the CRAR ratio has been well explained with comparisons for CRAR between Basel II and Basel III norms. The respective compositions are well outlined for private and public sector banks along with foreign banks.

The research project showcases in depth the practices, models, committees and all other prudency measures taken by banks for mitigation and credit risk management.

Market risk and its sub risks have been well explained along with detailed description of market risk management practices across banks under research.

Operational risk, assessment measures, and operational risk management practices across banks under study with recommendations from the researcher to enhance the risk mitigation measures are explained in detail.

It outlines the several risk components or elements which form a part of the ICAAP under modern day banks under the supervisory review process.
It explains the different pillar III risks along with their assessment and mitigation procedures, asset liability management and corporate governance practices across banks.