RISK MANAGEMENT IN INDIAN BANKS

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In most cases we observe that there is deviation in what we achieve from and what we had planned or what we had expected. This unpredictability of future is due to uncertainties associated with the steps that we undertake in the process or various external factors that influence the processes that are necessary to achieve our planned objective.

What Is Risk?

We may define ‘Risk’ as uncertainties resulting in adverse outcome, adverse in relation to planned objective or expectations.
Risk is the chance of financial loss or the variability of returns associated with a given asset. Assets that are having higher chances of loss are viewed as more risky than those with lesser chances of loss. Lower risk implies lower variability in net cash flow with lower upside and downside potential. Higher risk would imply with higher upside and downside potential. Zero risk would imply no variation in net cash flow. Return on zero risk investment would be low as compared to other opportunities available in the market.

Hypothesis of the Study

The Indian Banks are adopting the measures of Basel II norms to avoid the risk in public as well as private sector banks.

Research Methodology

The secondary data’s has been collected from the website of the banks under study.

Sample of the Study

The sampling has been done through stratified sampling method. The two largest banks of each sector i.e. public sector and private sector has been taken for the analysis purpose.
Basel Norms

We have studied the Management of Risk in Indian Banks in the light of Basel norms issued by (BCBS) Basel Committee in Basel, Switzerland.

Basel I

Basel I is the round of deliberations by central bankers from around the world, and in 1988, the Basel Committee (BCBS) in Basel, Switzerland, published a set of minimal capital requirements for banks. This is also known as the 1988 Basel Accord, and was enforced by law in the Group of Ten (G-10) countries in 1992, with Japanese banks permitted an extended transition period. Basel I is now widely viewed as outmoded, and a more comprehensive set of guidelines, known as Basel II are in the process of implementation by several countries.

Basel II

Basel II is the second of the Basel Accords, which are recommendations on banking laws and regulations issued by the Basel Committee on Banking Supervision. The purpose of Basel II, which was initially published in June 2004, is to create an international standard that banking regulators can use when creating regulations about how much capital banks need to put aside to guard against the types of financial and operational risks banks face. Advocates of Basel II believe that such an international standard can help protect the international financial system from the types of problems that might arise should a major bank or a series of banks collapse. In practice, Basel II attempts to accomplish this by setting up rigorous risk and capital management requirements designed to ensure that a bank holds capital reserves appropriate to the risk the bank exposes itself to through its lending and investment practices. Generally speaking, these rules mean that the greater risk to which the bank is exposed, the greater the amount of capital the bank needs to hold to safeguard its solvency and overall economic stability.

The Final Version Aims At

- Promote safety and soundness of Financial System;
- Create capital adequacy assessments and approaches that are appropriate to the degree of risk involved in a bank’s positions and activities;
- Encourage continuous improvement in bank’s internal risk assessment capabilities;
- Ensuring that capital allocation is more risk sensitive;
- Separating operational risk from credit risk, and quantifying both;
- Attempting to align economic and regulatory capital more closely to reduce the scope for regulatory arbitrage.
Basel II - Pillar 3 Disclosures

As per the RBI capital adequacy norms, Bank’s regulatory capital is classified into Tier-1 capital and Tier-2 capital.

Tier-1 capital includes paid-up equity capital, statutory reserves, other disclosed free reserves, capital reserves and innovative perpetual debt instruments eligible for inclusion in Tier-1 capital that comply with requirement specified by RBI.

Tier-2 capital includes revaluation reserves (if any), general provision and loss reserve, investment reserve and subordinate debt instruments eligible for inclusion in Tier-2 capital.

### Table No. 1

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Particulars</th>
<th>Public Sector Banks</th>
<th>Private Sector Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SBI</td>
<td>PNB</td>
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<tr>
<td>1</td>
<td>Tier I Capital</td>
<td>85732</td>
<td>17227.30</td>
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<tr>
<td>2</td>
<td>Tier II Capital</td>
<td>37587</td>
<td>9536.26</td>
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<tr>
<td>3</td>
<td>Total Capital Funds of the Banks</td>
<td>123319</td>
<td>26763.56</td>
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</tbody>
</table>
The table shows the total capital funds of the banks. In all the banks under study, the SBI has the highest total capital funds & tier-1 capital while PNB has the lowest total capital funds & tier-1 capital. In case of tier-II capital funds, SBI is highest and the HDFC bank is lowest.

As a conclusion, we can say that in case of total capital funds, the position of all the banks under study is satisfactory. However, the position of Public Sector Banks is much better than the Private Sector Banks.

Table No. 2

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<tbody>
<tr>
<td></td>
<td></td>
<td>SBI</td>
<td>PNB</td>
</tr>
<tr>
<td>1</td>
<td>Tier I Capital Adequacy Ratio</td>
<td>9.15</td>
<td>9.11</td>
</tr>
<tr>
<td>2</td>
<td>Tier II Capital Adequacy Ratio</td>
<td>4.01</td>
<td>5.05</td>
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<tr>
<td>3</td>
<td>Total Capital Adequacy Ratio</td>
<td>13.16</td>
<td>14.16</td>
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</table>
The Banks are subject to the capital adequacy norms stipulated by the RBI guidelines on Basel II with effect from March 31, 2008. Prior to March 31, 2008, the Bank was subject to the capital adequacy norms as stipulated by the RBI guidelines on Basel I. The RBI guidelines on Basel II require the Bank to maintain a minimum ratio of total capital to risk weighted assets of 9.0%, with a minimum Tier-1 capital adequacy ratio of 6.0%. The total capital adequacy ratio of the State Bank of India at March 31, 2010 as per the RBI guidelines on Basel II is 13.16% with a Tier-1 capital adequacy ratio of 9.15%. The total capital adequacy ratio of the Punjab National Bank at March 31, 2010 as per the RBI guidelines on Basel II is 14.16% with a Tier-1 capital adequacy ratio of 9.11%, which is just 1% more than the State Bank of India.

In case of Private Sector Banks, both the banks under study have the total adequacy ratio more than the prescribed by the RBI. The ICICI Bank has 19.45% total adequacy ratio while HDFC Bank has 17.44% total adequacy ratio, which is just near about double as prescribed in RBI guidelines.

As a conclusion, we can say that the Tier-1 capital adequacy ratio, Tier-II capital adequacy ratio and total adequacy ratio is above than the norms prescribed by the RBI. However, the capital adequacy ratios of private sector banks are much higher than the public sector banks.

**Three Basic Approaches of Capital Requirement:** Under Pillar 1 of the RBI guidelines on Basel II, All the Banks under study follows “The Standardized Approach (TSA)” for credit and market risk and “Basic Indicator Approach (BIA)” for operational risk.
BIA - Basic Indicator Approach

- This is the simplest approach and the default option for most banks all over the world unless otherwise specified;
- Capital charge is based on the average of positive gross income of previous three years;
- \[ \text{Total Capital Charge} = A \times \text{gross income} \]
  - A is relating industry wide level of required capital to the industry wide level of the indicator, which is set by Committee at 15%.
  - All Indian Banks are currently following this approach as advised by RBI.

TSA - The Standardized Approach

- Banks’ activities divided into 8 business lines;
- Indicator is gross income of each business line;
- Capital charge for each business line calculated by multiplying gross income by a factor \( \beta \) (beta);
- Total capital charge is the sum of capital charge of each business line:
  - \[ \text{Total Capital Charge} = \sum (G1-8 \times \beta1-8) \]
The Eight Business Lines Are

1. Corporate Finance  18%
2. Trading & Sales   18%
3. Retail Banking    12%
4. Commercial Banking 15%
5. Payment & Settlement 18%
6. Agency Services  15%
7. Asset Management  12%
8. Retail Brokerage  12%

AMA – Advanced Measurement Approach

- This is the most complicated of the three options;
- Each firm calculates its own capital requirement by developing and applying its own internal risk measurement system;
- Use of AMA is subject to supervisory approval.

Why Move to AMA?
Moving from BIA or TSA to AMA would lead to less capital allocation for Risk Management.

- It is based on estimates of:
  – Unexpected losses using internal & external data
  – Scenario Analysis
  – Bank specific business environment
  – Internal control factors

- AMA takes into account the following:
  – Internal Loss data of various units or sectors
  – Probability of Loss Event
  – Loss given Event

Types of Risks Managed By Banks:
The following are the major risks in a business:

- Market risk
- Credit risk
- Operational risk

Market Risk - Market risk is exposure to the uncertain market value of a portfolio. It is the risk that the value of this portfolio may decline over a given period of time simply because of economic changes or other events that impact the market. Market risk is also referred as price risk. Table No. 3
In market risk, we have studied all the three types of risks i.e. interest rate risk, foreign exchange risk (including gold) and equity risk. In Public Sector banks under study, the SBI has managed the highest capital for market risk while in Private Sector banks under study; the ICICI has managed the highest capital for the market risk.

In Public Sector banks under study, the SBI has managed capital of Rs. 4996 crores as compare to PNB who has managed capital of Rs. 666.42 crores for total market risk. In Private Sector banks under study, the ICICI bank has managed capital of Rs. 3270 crores as compare to HDFC bank who has managed capital of Rs. 589.27 crores for total market risk.

As a conclusion, we can say that SBI has managed the highest capital for market risks among all the banks under study.
Credit Risk - Credit risk in general terms means the uncertainty of a counterparty (obligor) to meet its’ obligations. Counterparties can be individuals, small companies, large corporate entities or even countries. Typically credit risk is measured as an amount of exposure that arises from transactions.

Table No. 4

<table>
<thead>
<tr>
<th>Capital Requirement for Credit Risk</th>
<th>(As on March 31, 2010) (Rs. In Crores)</th>
</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Portfolio Subject to Standardization Approach</td>
</tr>
<tr>
<td>2</td>
<td>Securitization Exposure</td>
</tr>
<tr>
<td></td>
<td>Total Credit Risk</td>
</tr>
</tbody>
</table>

The capital requirement for total credit risk is more in SBI among all the banks under study. In SBI the capital requirement for total credit risk is Rs. 73129 crores, which is three times or more than the other banks under study. In public sector banks, there is no expense of securitization exposure while in private sector banks; HDFC bank has more expense of securitization exposure. As a conclusion we can say that the SBI has three times or more capital requirement to manage credit risk as compare to other banks under study.
Operational Risk – Operational risk is defined as “the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events”. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

An operational risk is a risk arising from a company's business functions and from the practical implementation of the management's strategy. As such, it is a very broad concept concerning human and systemic errors that include information risks, fraud, physical or environmental risks, etc. The term operational risk is most commonly found in risk management programme of banks and other financial organizations that have implemented procedures and frameworks such as Baselnorms.

Table No. 5

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<tr>
<td></td>
<td></td>
<td>SBI</td>
<td>PNB</td>
</tr>
<tr>
<td>1</td>
<td>Basic Indicator Approach</td>
<td>6507</td>
<td>1165.6</td>
</tr>
<tr>
<td></td>
<td>Total Operational Risk</td>
<td>6507</td>
<td>1165.6</td>
</tr>
</tbody>
</table>
For calculating the capital requirement for operational risk, we have used Basic Indicator Approach (BIA). In operational risk also the SBI has managed the more capital as compared to other banks under study. The ICICI bank has provided the second highest capital to manage the operational risk among the banks under study. The capital managed by the other two banks i.e. PNB and HDFC bank is almost same.

Hence, as a conclusion we can say that the SBI has provided the maximum capital to manage the operational risk among all the banks under study.

Testing of Hypothesis

From the analysis of the study, it has been proved that the public as well as private sector banks are adopting the Basel II norms. Hence, our null hypothesis is accepted and alternative hypothesis is rejected.

Findings

On the basis of the analysis of the above tables, it can be concluded that:

- In case of total capital funds, the position of all the banks under study is satisfactory. However, the position of Public Sector Banks is much better than the Private Sector Banks.
- The Tier-1, Tier-II and total adequacy ratio is above than the norms prescribed by the RBI. However, the capital adequacy ratios of private sector banks are much higher than the public sector banks.
- SBI has managed the highest capital for market risks among all the banks under study.
- The SBI has three times or more capital requirement to manage credit risk as compare to other banks under study.
- The SBI has provided the maximum capital to manage the operational risk among all the banks under study.
- Hence, at last but not the least, we can say that SBI is the leader in managing the risks among all other banks under study.

Conclusions

- Basel II will foster Financial Stability and encourage banks to adopt improved risk management practices
- Sub-prime crisis has highlighted the range of Risks banks are exposed to.
- The new framework is complex and calls for revamping of entire management information system and allocation of substantial resources.
- There is no foolproof model to manage and measure banks Risk.
- Many Indian Banks intend to adopt RCSA (Risk and Control Self Assessment) on their way to move from BIA to AMA.
- Alternative approaches be studied and applied to the Indian Banks data available and tested.
• Implementation of Basel II is a long journey than the destination itself.

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