Interest Rate Risk Management: A Comparative Study of State Bank of India and ICICI Bank

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ABSTRACT

The unprecedented volatility in interest rate during the last decade has witnessed risk in earnings or capital due to movement of interest rates which has affected the overall profitability of banks. Hence, there is a need for accurate measurement and control of Interest Rate Risk associated with a bank’s entire portfolio. The present research paper makes an attempt to provide a comprehensive profile of Interest Rate Risk in State Bank of India and ICICI Bank, the major players in Public and Private Sector Bank respectively. Asset-Liability Mismatch, Sensitivity analysis and Gap methods were used to measure Interest Rate Risk. Further, the study also focuses on Interest Rate Risk mitigating tools such as Asset-Liability management and Interest Rate Derivatives adopted by these banks. The findings revealed that ICICI Bank is more exposed to interest rate risk as compared to SBI.

Key words:
Interest Rate Risk, Asset-Liability Mismatch, Sensitivity analysis, Gap methods, Asset-Liability Management, Interest Rate Derivatives

1. INTRODUCTION

The last decade has seen an increased volatility in interest rates. On an average the rate of interest was 5.82 percent reaching an historical high of 14.50 percent in August of 2000 and a record low of 3.25 percent in April of 2009. Time span from 2006 to mid of 2009 was considered as a period when the rate of interest was found to be stable; from Jan 2010 onwards the rate of interest has continuously moved northward. This increased volatility has raised the need for accurate measurement and control of interest rate risk. Interest rate risk is the risk to earnings or capital arising from movement of interest rates. The need to manage Interest rate risk arises as its management is critical to the overall profitability of banks. Hence, Interest rate risk Management focuses on reducing interest rate risk associated with a bank’s entire portfolio. While doing so banks initially examine its aggregate interest rate risk position. Traditionally, interest rate risk analysis was done through GAP, earnings sensitivity analysis and duration gap and was managed through shifts in the composition and volume of bank assets and liabilities. Banks constantly search for new products and opportunities to improve its operating performance. Innovative financial instruments such as, forward rate agreements, interest rate swaps, interest rate futures are few types of derivative that are actively used to manage interest rate risk. The following paper attempts to measure interest rate risk in SBI as well as in ICICI Bank during 2006-2011. Various techniques used by banks to measure interest rate risk were asset-liability mismatch, Gap analysis and sensitivity analysis, etc. Further, the paper also deals with the asset and liability position as well as the use of Interest Rate derivatives as interest rate risk management tools adopted in both the sample banks.

2. LITERATURE REVIEW

Several studies have been conducted to study interest rate risk faced by banks and its management. Ahmed Anwer S., Beatty Anne and Carolyn Takeda (1997) provides evidence on the Interest Rate Risk Management activities of Commercial Banks and found that interest rate exposure is associated with a mismatch between assets and liabilities and can be measured by using traditional GAP and duration GAP analysis. According to Tyagi, G. K. and Leonard, P.D. (1988) Bank balance-sheet management entails considering competing and conflicting objectives such as maximization of returns and minimization of risks associated with alternative portfolio combinations but the traditional multi-objective models simply provide the decision-maker with the entire set of non-dominated solutions; the decision-maker must then choose, unaided, the best solution based on his subjective trade-offs, experience and judgement. Hence, the need for the management of interest rate risk has driven bank managers to use new financial tools. Derivatives instruments are new tools used by banks in order to adjust the amount of assumed interest rate risk. These instruments include interest rate swaps, interest rate futures and forward rate agreements. Carter David A. (1998) evidences that the use of interest-rate derivatives is positively related to exposure to interest-rate risk as measured by the absolute value of the 12-month maturity gap. Interest Rate Derivatives provide opportunity to hedge balance sheet exposure to interest rate risk. Dhanani A. (2007) found that Interest rate volatility, use of corporate debts, regulatory compliance determined Interest Rate Risk management. In order to manage volatility in profit & cash flow, lower financial distress,
and to avoid underinvestment UK Companies hedge Interest Rate Risk. But Broll U., Guinnane T.W. (1999) found a situation in which hedging may actually increase a bank’s exposure to risk. Especially in the case of financial institutions, there exists only a limited number of delivery dates for each futures contract and the delivery dates may not coincide with the planning horizon of the firm. Therefore proper attention should be taken for optimal risk management policy. As a safer side banks have been using both traditional as well as innovative methods to mitigate Interest rate risk.

3. OBJECTIVE OF STUDY

The present research has made an attempt to provide a comprehensive profile of Interest Rate Risk in State Bank of India and ICICI Bank, the major players in Public and Private Sector Bank respectively, during 2006-2011. Asset-Liability Mismatch, Gap and Sensitivity analysis methods have been used to measure Interest Rate Risk. Further, the study has focused on Interest Rate Risk mitigating tools such as Asset-Liability management and Interest Rate Derivatives adopted in both the sample banks.

4. RESEARCH METHODOLOGY

The present study has used analytical research design to compare interest rate risk situation in SBI and ICICI Bank. It has used secondary information from Annual Reports of sample banks.

5. ANALYSIS AND INTERPRETATION

The following paragraphs has been devoted to the measurement of Interest rate risk through Asset-Liability Mismatch, Gap and Sensitivity analysis methods in both the banks. Interest Rate Risk mitigating tools such as Asset-Liability management and Interest Rate Derivatives have also been discussed.

5.1 Measurement of Interest rate Risk

5.1.1 Asset Liability Mismatch: On the basis of time frame, asset and liability of the sample banks can be roughly classified into two categories, assets and liabilities for less than one year denoted as short term assets and liabilities and assets and liabilities for more than one year denoted as long term assets and liabilities. As the fluctuation of interest rate is more vital for short term rate of interest the present study has focused short term asset and liability mismatch only. A positive gap means that the assets are more than liabilities, while a negative gap means that in the assets are less than liabilities.

![Graph 1](Short term Asset-Liability in SBI)

Source: Annual Reports of the respective year.

The above graph 1 depicts that during the period of study short term assets are lower than short term liabilities in SBI. The gap between asset and liability remain negative for the period under study. It was Rs. -34237.7 Cr. in 2006, Rs. -39699.33 Cr. in 2007, Rs. -55557.86 Cr. in 2008, Rs. -86672.5 Cr. in 2009, Rs. -107262.62 Cr. in 2010 and Rs. -52474 Cr. in 2011. This shows that any change in interest rate can adversely affect the banks position and under such circumstances the bank has used interest risk mitigation tool to hedge the risk. This asset-liability mismatch has directly affected the profitability of the bank and to ensure proper functioning of the bank, this asset and liability mismatch needs to be avoided. Therefore, the bank has to adopted measures to mitigate the risk.

![Graph 2](Short term Asset-Liability in ICICI Bank)

Source: Annual Reports of the respective year.

Graph 2 portrays short term Asset-Liability mismatch in ICICI Bank. In ICICI Bank also the amount of short term asset are less than that of liabilities. This asset shortage may render the bank economically insolvent when interest rate rises. The bank has therefore adopted various methods to hedge Interest Rate Risk. It was Rs. -50554.31 Cr. in 2006, Rs. -74977.81 Cr. in 2007, Rs. -52776.74 Cr. in 2008, Rs. -69288.87 Cr. in 2009, Rs. -12041.53
from the amount of rate-sensitive assets. This calculation, called the gap, can be written as \( GAP = RSA - RSL \), where \( RSA \) is rate-sensitive assets and \( RSL \) is rate-sensitive liabilities. The GAP model attempts to measure how much interest rate risk a bank evidences at a fixed point in time by comparing the rate sensitivity of assets with the rate sensitivity of liabilities. The objective was typically to measure expected net interest income and then identify strategies to stabilize or improve it. GAP represents the magnitude of rate sensitive assets minus magnitude of rate sensitive liabilities over different time intervals.

Table 1 presents the difference between the rate sensitive assets and liability in SBI and ICICI Bank during 2006-10. During 2006-10, the difference between the rate sensitive asset and liability has continuously increased in SBI. It was Rs. 34237.7 Cr. in 2006, Rs. -39699.33 Cr. in 2007, Rs. -55557.86 Cr. in 2008, Rs. 86672.5 Cr. in 2009 and Rs. -107262.62 Cr. in 2010. It reduced to Rs. -52474.48 Cr. in 2011. In ICICI bank also, the gap widened from Rs. 50554.31 Cr. to Rs. -74977.81 Cr., it reduced to Rs. -52776.74 Cr. in 2008, but again increased Rs. 69288.87 Cr. in 2009. The gap reduced in 2010 to Rs.12041.53 Cr. and gain increased Rs. 22626.48 Cr. in 2011. As both the banks have a negative Gap over the period of study, i.e. from 2006-11, they should adopt measures to manage interest rate risk.

5.1.3 Residual Maturity Analysis: Further, the Rate Sensitive Assets (RSA) Rate Sensitive Liabilities (RSL)

Table 2, contains residual maturity statement covering a period from 1-14 days to 6months-1year for the year 2006-2011. For the year 2005-06, the time buckets of 1-14 days, 3months-6months and 6months - 1year, are vulnerable paving way to negative gaps of high volumes. Whereas, the total maturity gap was found to be positive due to positive gap for the time bucket 29days-6months and 6months to 1 year. From the maturity gap profile, the maturity gap was computed by subtracting total outflows from total inflows, giving the mismatch in the outflow and inflow in the particular time bucket. A positive maturity gap means that in the particular time bucket, the inflows are more than outflows, while a negative maturity gap means that in the particular time bucket, the inflows are less than outflows. The time buckets 1-14days 15-28 days, 29 days to 3 months, over 3 months and up to 6 months and over 6 months and up to one year are referred as short term asset and liabilities. The time bucket one to three years, 3 to 5 years and over 5 years are referred as long term asset and liabilities. Here, short term asset and liability have been discussed.
3months, 3months-6months and 6months -1year are vulnerable paving way to negative gaps of high volumes. Whereas, the total maturity gap was found to be positive due to positive gap for the time bucket 1-14 days, 15-28days, 1-3 years, and above 5 years. During 2006-2011, the time buckets of 15-28days, 3months-6months and 6months -1year, are vulnerable paving way to negative gaps of high volumes. Whereas, the total maturity gap was found to be positive due to positive gap for the time bucket 1-14 days, 29days-3months, and above 5 years. During 2009-10, the time buckets of 1-14 days, 15-29days, 29days-3months, 3months-6months and 6months-1year, are vulnerable paving way to negative gaps of high volumes. During 2010-2011, the time buckets of 1-14 days, 15-28days , 29days-3months, 3months-6months are vulnerable paving way to negative gaps of high volumes therefore the total maturity gap was found to be negative. Whereas, positive gap for the time bucket 6months-1year.

### Table 3 Residual maturity for the year 2006-11 in ICICI Bank

<table>
<thead>
<tr>
<th>Maturity buckets</th>
<th>1 day</th>
<th>2-7 days</th>
<th>8-14 days</th>
<th>15-28days</th>
<th>29-3 month</th>
<th>3months&amp;upto6months</th>
<th>over 6 months &amp; upto 1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>-87.48</td>
<td>-2,538.39</td>
<td>-15,207.04</td>
<td>-12,398.48</td>
<td>-20,322.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>-9,501.85</td>
<td>1,266.44</td>
<td>-19,307.57</td>
<td>-17,916.94</td>
<td>-29,517.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>6,807.39</td>
<td>2,027.17</td>
<td>-14,900.34</td>
<td>-18,954.47</td>
<td>-27,756.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>1,581.60</td>
<td>-3,642.74</td>
<td>-22,914.95</td>
<td>-22,864.58</td>
<td>-21,448.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>13,041.64</td>
<td>-3,586.35</td>
<td>3,254.29</td>
<td>-11,569.93</td>
<td>-4,265.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1,270.30</td>
<td>-2,325.32</td>
<td>3,090.29</td>
<td>-5,899.16</td>
<td>-1,980.64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Annual Reports of the respective year.

From Table 3, contains residual maturity statement covering a period from 1-14 days to 6months-1year for the year 2006-2011. During 2005-06, in ICICI bank the time buckets of 1-14 days, 29days-3months, 3months-6months and 6months -1year are vulnerable paving way to negative gaps of high volumes. Whereas, the total maturity gap was found to be positive due to positive gap for the time bucket 1-3 years, 3 to 5years and above 5 years. During the year 2006-07, the time buckets of 1-14 days, 29days-3months, 3months-6months and 6months -1year are vulnerable paving way to negative gaps of high volumes. Whereas, the total maturity gap was found to be positive due to positive gap for the time bucket 1-14 days, 29days-3months, and above 5 years. During 2007-08, the time buckets of, 29days-3months, 3months-6months and 6months -1year are vulnerable paving way to negative gaps of high volumes. Whereas, the total maturity gap was found to be positive due to positive gap for the time bucket 1-14 days, 15-28days, 3 to 5years and above 5 years. During the year 2008-09, the time buckets of 15-28days, 29days-3months, 3months-6months and 6months -1year are vulnerable paving way to negative gaps of high volumes. During 2009-10, the time buckets of 1-14 days, 15-29days, 29days-3months, 3months-6months and 6months-1year, are vulnerable paving way to negative gaps of high volumes. During 2010-2011, the time buckets of 1-14 days, 15-28days , 29days-3months, 3months-6months are vulnerable paving way to negative gaps of high volumes therefore the total maturity gap was found to be negative. Whereas, positive gap for the time bucket 6months-1year.

#### 5.1.4 Rate Sensitiveness Analysis

The risk to earnings or capital arising from the movement of interest rates, which has been the most pervasive risk, needs to be managed. This interest rate risk refers to the volatility in net interest income, attributable to changes in the level of interest rates. The recent volatility in interest rates and related potential swings in profitability, banks and regulators have paid increased attention to measure and monitor how rate changes affect performance. It also refers to impact the Bank’s Net Interest Income and the value of its assets and liabilities arising from fluctuations in interest rate due to internal and external factors. Internal factors include the composition of the Bank’s assets and liabilities, quality, maturity, interest rate and re-pricing period of deposits, borrowings, loans and investments. External factors cover general economic conditions. As the volatility of interest rates has increased, banks became more concerned about their exposure to interest-rate risk, the riskiness of earnings and returns that is associated with changes in interest rates. Alternatively, when the market value of the liabilities rises above the market value of assets and the value difference exceeds the value of equity capital creates uncomfortable position in banks. This however does not mean that asset abundance is disadvantageous to banks. The following paragraph discusses the affect of one percentage change in interest rate on net interest income and market value of equity in both the banks.
Table 4 Earnings and Value at Risk in SBI and ICICI Bank

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earnings at Risk (Impact on NII)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBI</td>
<td>1953.49</td>
<td>2516.56</td>
<td>2156.88</td>
<td>3587.47</td>
</tr>
<tr>
<td>ICICI Bank</td>
<td>-1075.9</td>
<td>-83.9</td>
<td>-516.3</td>
<td>403.20</td>
</tr>
<tr>
<td><strong>Value at Risk (Impact on market value of equity)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBI</td>
<td>2367.96</td>
<td>1137.73</td>
<td>592.83</td>
<td>3423.96</td>
</tr>
<tr>
<td>ICICI Bank</td>
<td>1676.1</td>
<td>2970.4</td>
<td>1954.9</td>
<td>2940.4</td>
</tr>
</tbody>
</table>

Source: Annual Reports of SBI and ICICI Bank.

The table 4 shows that one percentage change in interest rate has positive impact on NII of SBI by Rs. 1953.49 Cr. in 2008, Rs. 2516.56 Cr. in 2009, Rs. 2156.88 Cr. in 2010 and Rs. 3587.47 Cr. in 2011. On the other hand, in ICICI Bank, as the bank has higher amount of Interest Income to Total Income (which varies from 60 to 70 percentage of total asset), any change in interest rate has adversely affect the net interest income of the bank. Therefore, it was evident that one percentage change in interest rate has negative impact on NII by Rs. 1075.9 Cr. in 2008, Rs. 83.9 Cr. in 2009, Rs. 516.3 Cr. in 2010, Rs. 403.20 Cr. in 2011. The affect of percentage change on the market value of equity was also higher in ICICI Bank with the average of Rs. 2385.485 Cr. as compared to Rs. 1880.62 Cr. in SBI. Hence, it can be concluded that ICICI Bank was more sensitive to change in interest rate as compared to SBI. The IRR measures mentioned above were meant to represent a crude measure of the interest rate risk assumed by the bank before its derivative position is taken into account. The above discussion shows that the change in interest rate has affected the net interest income and market value of equity in both the banks. Therefore, both the Banks have been using both traditional methods such as asset liability management and innovative methods such interest rate derivatives to mitigate interest rate risk efficiently and effectively.

5.2. Management of Interest rate Risk

5.2.1 Asset Liability Management: Interest rate risk arises in bank operations because banks' assets and liabilities generally have their interest rates reset at different times. This leaves net interest income (interest earned on assets less interest paid on liabilities) vulnerable to changes in market interest rates. The magnitude of interest rate risk depends on the degree of mismatch between the times when asset and liability interest rates are reset. Earnings sensitivity analysis also targets the volatility in net interest income associated with changing interest rates and balance sheet composition. This information is used to identify the bank’s interest rate risk and to develop strategies to manage risk. Management can alter the size of the GAP to either hedge net interest income against changing interest rates or speculatively try to increase net interest income. Hedging involves reducing the volatility of net interest income either by directly adjusting the amounts of rate sensitive assets and liabilities or by taking an off balance sheet position such as with forwards, futures, option contracts and interest rate swaps. Changing the size of GAP to take advantage of perceived rate changes is speculative because it assumes that management can forecast interest rates better than the market.

5.2.2 Interest Rate Derivatives

Interest rate derivatives are contract between parties who wish to protect themselves against fluctuations in interest rates. The parties agree on an interest rate for a specified period of time on a specified principal amount. The principal or the notional amount is used to calculate payments made on Interest rate derivatives instruments which generally does not change hands and is thus referred to as notional amount. The parties do not exchange the amount at any time, it is only used to compute the sequence of payments. Hence, interest rate derivative is a derivative where the underlying asset is the right to pay or receive a (usually notional) amount of money at a given Interest rate. The following paragraphs describe the use of Interest Rate Derivatives in SBI and ICICI Bank. The notional principal amount, defined as the quantity of the assets used to calculate payments made on the Interest Rate Derivative instrument was taken into account to study the usage and pattern of Interest Rate Derivatives. Graphical presentation and descriptive statistics method was used to explain the use of Interest Rate Derivatives over the period of study for both the banks.

![Figure 3 Volumes and Growth of Interest Rate Derivatives in SBI and ICICI Bank](source)

Source: Annual Reports of SBI and ICICI Bank.
The above Graph 3 reveals that, the use of Interest Rate Derivatives in SBI was Rs.97967.93 Cr. in 2006; it was almost doubled to Rs.186610.70 Cr. in 2007. For the next three consecutive years i.e. from 2007-09 it continuously decreased from Rs. 186610.7 to Rs.155, 928.42 Cr. and again to Rs. 109936.12 Cr. However it increases to Rs.232262.66 Cr. from Rs.105, 850.77 Cr. in 2011. It is apparent from the graph that Interest Rate Derivatives in ICICI Bank had shown a fluctuating trend during 2006-2011. The notional principal of Interest Rate Derivatives at March 31, 2006 and 2007 was Rs. 221576.26 Cr. and Rs. 293980.95 Cr. In the year 2008 it rose to Rs. 657851.57 Cr., recording 123% increase from the previous year. A decline of 40 % was noticed in 2009 amounting Rs. 350715.14Cr. and it again reduced to Rs. 338056.13 Cr. in 2010. It increased to Rs. 414628.47Cr registering a growth of 20%. SBI has used Interest Rate Derivatives conservatively with an increase from 2006 to 2007 but has shown a decreasing trend from Rs.186, 610.16 cr. in 2007 to Rs.155, 928.42 cr. in 2008 and Rs.109, 936 cr. in 2009. Significant decrease was recorded in the use of Interest Rate Derivatives in SBI as well as in ICICI Bank during 2008-09 due to global slowdown.

The phased deregulation of interest rates and the operational flexibility given to banks in pricing most of the assets and liabilities have exposed the banking system to interest rate risk. Interest rate risk is the risk where changes in market interest rates might adversely affect a bank’s financial condition. Changes in interest rates affect both the current earnings (earning perspective) measured as changes in the net interest income (NII) and the net worth of the bank (economic value perspective) measured as changes in market equity.

Table 5 Correlation between Interest rate derivatives and Impact on NII and Market value of equity in SBI and ICICI Bank

<table>
<thead>
<tr>
<th>Impact on NII</th>
<th>SBI</th>
<th>ICICI Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market value of equity</td>
<td>0.93</td>
<td>-0.585</td>
</tr>
<tr>
<td></td>
<td>0.60</td>
<td>0.7606</td>
</tr>
</tbody>
</table>

Source: Annual Reports of the respective year.

A positive correlation was found between the use of Interest rate derivatives and its impact on net interest income and market value of equity. This shows that as the impact on NII as well as market value of equity increases (due to the change in IR), the use of Interest rate derivatives also increases. Further it was found that Interest Rate Derivatives has a positive and significant impact on NII of the bank. A positive correlation was found between the use of Interest rate derivatives and its impact market value of equity. This shows that as impact market value of equity in the bank increases, the use of Interest rate derivatives also increases. Further it was found that Interest Rate Derivatives has a positive and significant impact on market value of equity of the bank. 100 % change in Interest rate derivatives can bring 69% change in market value of equity. This was due to the fact that as ROE comes out to be the most significant factor to determine the use of Interest rate derivatives. Therefore change in market value of equity due to percentage change in interemst rate is effected by Interest rate derivatives.

Table 6 Interest Rate Derivatives and Asset Liability Management

<table>
<thead>
<tr>
<th>Correlation Rate Derivatives and Asset Liability Management</th>
<th>For hedging</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBI GAP</td>
<td>0.025601</td>
</tr>
<tr>
<td>ICICI Bank GAP</td>
<td>0.41156</td>
</tr>
</tbody>
</table>

Source: Annual Reports of the respective year.

When IRD and Gap both were studied it was found in Table 8 that in SBI as well as in ICICI Bank, the wider the gap the greater was the interest rate risk and the greater was the use of IRD. Positive relationship was found between the use of IRD and asset liability. This also means that both the banks have been using asset liability management as well as IRD for hedging. Larger absolute values of the gap measures have indicated a greater sensitivity to interest rate changes on the part of the bank. Both the bank can reduce its interest rate exposure by hedging with interest rate derivatives. Off-balance-sheet instruments, on the other hand, have grown dramatically and are an important part of the management of interest rate risk in banks. The notional amount of interest rate derivatives has grown from Rs.97967.93 Cr in 2006 to 186610.7 in 2007. It was recorded Rs.105, 850.77 Cr. as of year 2011.

Several techniques are used to measure the exposure of earnings and economic value to changes in interest rates. SBI as well as ICICI Bank have focused on the effect that changing rates can have on their near-term reported earnings. The banks have also been examining the effect of changing rates on the economic value of their net worth, defined as the net present value of all expected future cash flows discounted at prevailing market rates. By considering the potential effect of rate changes on economic value as well as on earnings--banks are taking a longer-term perspective and considering the full effect of potential changes in market conditions. As a result, they are more likely than before to avoid strategies that maximize current earnings at the cost of exposing future earnings to greater risk. The impact of interest rate changes on the Market Value of Equity is monitored through Duration Gap analysis by recognizing the changes in the value of assets and liabilities by a given change in the market interest rate. The change in value of equity (including reserves) with 1% parallel shift in interest rates for both assets and liabilities is estimated.
6. CONCLUSION

Hence, it can be concluded from the above discussion that both the sample banks have been facing Interest rate risk during the period of study, i.e. from 2006-2011 but ICICI Bank is more prone to Interest rate risk. It was found that both the banks have been using traditional method, i.e. Asset Liability Management and as well as innovative methods such as Interest Rate Derivatives instruments to mitigate Interest rate risk simultaneously. Keeping in view the inherent difference between the public and private sector banks, the motivation for using interest rate derivatives and attitude towards risk management of private sector do not readily translate into the public sector. Moreover, the governments tend to have “deep pockets” when it comes to supporting their own entities hence; SBI has lower inclination towards these instruments. Whereas in case of ICICI Bank, due to lack of support from any big brother, the use of such innovative instruments to hedge the interest rate risk is a compulsion rather than choice. Thus, qualitatively both the banks appear to be similar in their approaches towards the use of risk mitigating instruments but there exists an undoubted contrast in terms of volume of these instruments in SBI & ICICI Bank. Being a private sector bank ICICI Bank is more aggressive to use Interest Rate Derivatives instruments.

7. LIMITATION

Although care has been exercised at different stages to make this research papers objective and dependable, it is bound to suffer from limitations. The statistical tools and techniques used in the present study have their own limitation which may affect the inferences drawn from the study.

8. FUTURE WORK

Further research could be conducted on large sample. The period of study could also be expanded.

REFERENCES


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