

Asset liability Management Practices in HDFC bank

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Abstract

Asset-Liability Management (ALM) is the tool for managing risk in commercial banks universally. Banking industry is exposed to various risks prevailing in the economy like the Liquidity risk, interest rate risk etc. The returns of every commercial bank are subjective to these factors or risk. This paper discusses the liquidity mismatches over the time buckets and the impacts in returns the Indian context considering HDFC bank as an example where by analyzing the financial data spread over a period of ten years ranging from financial years 2007-08 to 2016-17. The research article is descriptive in nature. The data had been collected from the secondary sources such as RBI guidelines, reports etc. It has been found in the study that ALM is a successful tool for risk management.

KEYWORDS: *Liquidity Risk, Interest rate risk, NII.*

Introduction

In every economy, banks remained and will continue to remain as an important institution as they play the most primary role in the payments system. The key operation of commercial banks is availing required funds to its customers through accepting deposits. For the channelizing of funds banks must be in a healthy liquidity position as in financial intermediation framework, mobilization of deposits and disbursement of credit banks provide liquidity to the whole economy. Therefore a sound and efficient banking network is essential for maintaining financial stability in every financial system.

The Indian Banking industry is undergoing transformation since the new economic reforms of 1991 which paved the way for several wide-ranging changes in the Indian financial sector which made it them more dynamic and competitive including the deregulation of interest rates, reduction of reserve requirements (CRR and SLR), integration of various segment of financial markets, allowing banks to access capital market for augmenting capital base to meet their capital adequacy, freedom in operational matters, greater emphasis on the use of information technology, moving towards capital account convertibility and so on. Due to these far reaching changes in the economy today Indian banks are venturing into non-traditional spheres of business like value added services and generating earnings through diversified activities other than the core banking activity

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of accepting for the purpose of lending(Saksham Dwivedi,2015)¹. Introduction of new banks, new instruments, new opportunities and opened up the new challenges. Also the deregulation of the Indian economy has opened up new prospects for banks to enhance revenues, leading to greater competition, reduced profit margins and consequently greater risks(Anurag et.al 2012)².Risk is inborn in any business. Risk is defined as anything that creates hindrances in the way of achievement of certain objectives. Banking business is having the threat of risk implied in it(Thirupathi Kanchu, 2013)³ as a bank is doing business with a third person's money which is repayable on demand, any defaults in the repayment of an issued loan will put the bank in distress. Risks are unavoidable but are controllable by adopting various risk control methods.

Asset liability Management (ALM) can be defined as the comprehensive and dynamic framework for measuring, monitoring and managing the financial risks associated with changing interest rates, foreign exchange rates and other factors that can affect the organization's liquidity(Rajesh Goyal, 2016)⁴ ALM is concerned with the effective management of the balance sheet (liabilities and assets) of commercial banks in such a way that the net earnings from interest are maximized without affecting the risk portfolio of the bank. Thus the ALM functions include the tools adopted to tranquillize Liquidity risk, management of Interest rate risk and Credit risk management. In short, ALM is the sum of the financial risk management of any financial institution. The Asset liability management in the recent years has become a tool of integrated analysis of assets and liabilities so to value not only the interest rate risk but the liquidity risk, solvency risk, firm strategies and asset allocation as well. The landscape of asset liability management for the financial sector is ever changing and the scope of asset liability management activities has widened over time.

The various risks that the banks are exposed to are- credit risk, interest rate risk, foreign exchange risk, equity or commodity pricing risk, liquidity risk and operational risk, and thus the banks need to introduce effective risk management systems(Chetan Shetty,et.al 2016)⁵.

Various techniques are used to examine the mismatch in a bank's balance sheet. Present paper is an attempt to study the risk return policies, solvency position and to understand the liquidity position as well as the risk exposure of the private sector banks functioning in India taking HDFC bank as a sample for the study using GAP analysis.

Literature review

The Basel committee for banking supervision provides the basic guidelines regarding the measurement of interest rate risk sensitivity (Basel Committee on Banking Supervision)⁶. Vaidyanathan(1999)⁷ through his research attempted to study various kinds of risk that required to be managed in the Indian context.. the study examined the strategies for asset liability management from the asset side as well as the liability side and concluded that the strategy for asset liability management becomes more challenging because banks have to adopt a modular approach in terms of meeting asset liability management requirements of different

divisions and product lines. Chabraborty and Mohapatra (2008)⁸ observed that public sector banks follow an efficient asset-liability maturity pattern but the interest rate risk and liquidity risks are the significant risks that affect the bank's profitability and therefore, they should be regularly evaluated and managed so as to maintain the financial stability of the bank. The study carried out by Sheela P and Tejaswini Bastray (2015)⁹ concluded that interest rate risk is measured through the use of gap analysis. For filling the short term liquidity gap, bank tend to market borrowing at high rate of interest, causing the reduction in interest margin and the profitability of bank. As per Amith kumar Meena, Joydip Dhar (2014)¹⁰ the most significant challenge which banks face in their operations now a days is to manage liquidity. This study analysed short term liquidity and maturity gap of the banks in order to expel risk in banking sector. GV Bhavani Prasad and D Veena's (2013)¹¹ research showcased the importance of ALM in order to avoid risks arising out improper loan and portfolio management and loan review mechanism.

Kajal Chaudhary and Monika Sharma (2011)¹² stated that public banks must pay attention on their functioning. Banks should select borrower very cleverly such that the public banks could decrease the NPA level Dr. N Kavitha (2012)¹³ In her research, it exhibits how the fund position of the bank influence for the optimal mix of assets and liabilities for the profitability of banks by using ratios like debt equity ratio, capital adequacy ratio etc . And greater care has to be taken for the variables of ALM like optimal mix of asset-liability, maturity, rate sensitivity, liquidation of assets and liabilities in order to reduce the predictable risk. In her analytical research on ICICI bank using gap analysis technique and duration analysis technique Dr. B. Charumathi (2008)¹⁴ analyzed the interest rate risk exposure in ICICI Bank and the findings revealed that the bank is exposed to interest rate risk.

Mihir Dash, K.A. Venkatesh and Bhargav B.D(2011)¹⁵ carried out the study on maturity gap analysis with the primary objective to compare the maturity gaps in public, private and foreign banks in the Indian banking industry. The research showcased the maturity gap analysis to examine Assets Liability Management and concluded that public sector banks had very conservative liquidity risk management policies where as Private sector banks have good short term liquidity position.

Asset liability management is considered as the first step in the long term strategic planning process. The present study aims at assessing the effectiveness of Asset Liability Management policies in HDFC bank functioning in the private sector of Indian Banking industry.

Objectives of the study

1. To study the Asset Liability Management policies followed by HDFC bank.
2. To compare and analyze the Maturity Gap of HDFC Bank and to measure the liquidity risk.

Research Methodology

The present research is descriptive in nature. Secondary data is being used for the analysis. The study focuses on Asset Liability management policies followed by HDFC bank functioning in the Private sector of Indian Banking Industry. The data for the study is collected from the major financial source like Balance Sheet, Annual Reports and from the RBI Website. The sources also include online publications, Books and journals. GAP Analysis is applied to find out the liquidity position of the selected bank.

Gap Analysis

Banks are exposed to several major risks in the course of their business – Interest rate risk, Liquidity risk, Credit risk, foreign exchange risk, equity / commodity price risk and operational risks are some of them. The current study puts light on two central risks and their management:

- Interest Rate Risk

Interest rate risk is the risk arising out of fluctuations in interest rates, it also considers change incomes as the impact of changes in the rate of interests

- Liquidity Risk

Basel Committee on Banking Supervision defines liquidity as the ability of a bank to fund increases in assets and meet obligations as they fall due, without incurring unacceptable losses. The fundamental role of banks in the maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk both of an institution specific nature and that which affects markets as a whole. Liquidity risk arises from maturity mismatches where liabilities have a shorter tenor than assets.

Through ALM banks try to match the assets and liabilities in terms of Maturities and Interest Rates Sensitivities so as to minimize the interest rate risk and liquidity risk.

Gap Analysis is a technique of Asset – Liability management. It is used to assess interest rate risk or liquidity risk. GAP analysis measures the difference between Rate Sensitive Liabilities (RSL) and Rate Sensitive Assets (RSA) (including off balance sheet position) by grouping them into time buckets according to residual maturity or next re-pricing period at a given point of time An asset or liability is treated as rate sensitive if;

- Within time bucket under consideration is a cash flow.
- The interest rate resets/reprices contractually during time buckets
- Administered rates are changed and
- It is contractually pre-payable or withdrawal allowed before contracted maturities.

Thus ;

$GAP = RSA - RSL$

GAP Ratio=RSAs/RSL

- Mismatches can be positive or negative
- Positive Mismatch: RSA.>RSL. and vice-versa for Negative Mismatch
- In case of +ve mismatch, excess liquidity can be deployed in money market instruments, creating new assets & investment swaps etc.
- For -ve mismatch, it can be financed from market borrowings (call/Term), Bills rediscounting, repos & deployment of foreign currency converted into rupee.

The table below represents the impact of a positive or negative gap on Net Interest Income (NII) corresponding to the movements in interest rates

Table :1 Table showing the impact of a positive or negative gap on Net Interest Income

GAP	INTEREST RATE CHANGE	IMPACT ON NII
Positive	Increases	Positive
Positive	Decreases	Negative
Negative	Increases	Negative
Negative	Decreases	Positive

Discussion

From the analysis of Table 2 it is understood that in the year 2007-08 the HDFC Bank shows negative GAP in the short term, medium term and one of the long term time buckets ie, 1year-3years. It is observed that in the very short term, 6m to 1 year and very long term bank shows a positive GAP between the rate sensitive assets and liabilities which will help the bank to invest the excess amounts in other assets which will help in the generation of more income, also it can be inferred that bank has some better long term assets when compared to its liabilities.

It is observed that in the year 2008-09 both in the short and long term bank faces a negative GAPs. This shows that there is a fall in short and long term investments and lending, also the bank will have to suffer more interest cost as it will be necessary for the bank to find funds to meet the short and long term time buckets. The negative GAP also can be considered as an after effect of the global depression during the 2007-08. It is also found that in the very short term and medium terms only the bank shows a positive gap which hence the bank has got opportunities to invest in other investment avenues in short and medium term only.

The analysis show that in the following consecutive years ie, 2009-10 and 2010-11 also there is a negative GAP in the long run and very short term time buckets. To maintain negative GAP in short term is risky when compared to the Long term GAPs as it affects short term liquidity position of the bank. Also the short term liquidity issues show that HDFC banks need to frame more aggressive strategies to give away more short term loans and advances. But from the next year it was observed that, from the financial year 2011-12 the bank maintained positive GAPs in short and medium term maturity buckets. Which show that there is due increase in the short and medium term loans, advances and investments which is due to the better policy formations by the bank. When considering the majority of the years and time buckets under study it can be clearly understood that HDFC bank maintains a proper ALM policy and takes due care in maintaining the liquidity, aiming at earning maximum return at the time of interest rate fluctuations, taking into account the effect of RSA and RSL on NII.

Conclusion

It can be concluded that ALM is an important tool for monitoring, measuring and managing the interest rate risk, liquidity risk a bank. With the deregulation of interest regime in India, the banking industry has been exposed to interest rate risk / market risk Hence to manage such risk, ALM needs to be used so that the management is able to assess the risks and cover some of these by taking appropriate decisions at appropriate time.

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