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A STUDY ON ASSET AND LIABILITY MANAGEMENT AT HDFC

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ABSTRACT: To study the concept of ASSET & LIABLITY MANAGEMENT, Functions and Objectives of ALM committee. To identify the CASH INFLOWS and OUTFLOWS in the HDFCBank.To study RISK MANAGEMENT under The Housing Development Finance Corporation Limited (HDFC).To study RESERVES CYCLE of ALM under The Housing Development Finance Corporation Limited (HDFC).Analyzing maturity profile of different types of assets and liabilities. Assessment and management of risk factors associated with assets.The need of the study is to concentrate on the growth and performance of The Housing Development Finance Corporation Limited (HDFC) and to calculate the growth and performance by using asset and liability management and to know the management of non-performing assets.To know financial position of the Housing Development Finance Corporation Limited (HDFC).To analyze existing situations of the HDFC..To analyze competition between the HDFC with other corporative.

KEY WORDS:ALM, HDFC,RISK MANAGEMENT, ASSET AND LIABILITY MANAGEMENT.

I.INTRODUCTION

1.1. ASSET AND LIABILITY MANAGEMENT

Asset Liability Management (ALM) is a strategic approach of managing the balance sheet dynamics in such a way that the net earnings are maximized. This approach is concerned with management of net interest margin to ensure that its level and riskiness are compatible with the risk return objectives.

If one has to define Asset and Liability managementwithout going into detail about its need and utility, it can be defined as simply " management of money" which carries value and can change its shape very quickly and has an ability to come back to its original shape with or without an additional growth. The art of proper management of healthy money is ASSET AND LIABILITY

1.2.MANAGEMENT (ALM).

The Liberalization measures initiated in the country resulted in revolutionary

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changes in the sector. There was a shift in the policy approach from the traditionally administered market regime to a free market driven regime. This has put pressure on the earning capacity of co-operative, which forced them to foray into new operational areas thereby exposing themselves to new risks. As major part of funds at the disposal from outside sources, the management is concerned about ***RISK*** arising out of shrinkage in the value of assets, and managing such risks became critically important to them. Although co-operatives are able to mobilize deposits, major portions of it are high cost fixed deposits. Maturities of these fixed deposits were not properly matched with the maturities of assets created out of them. The tool called ASSET AND LIABILITY MANAGEMENTprovides a better solution for this.

ASSET LIABILITY MANAGEMENT (ALM) is a portfolio management of assets and liability of an organization. This is a method of matching various assets with liabilities on the basis of expected rates of return and expected maturity pattern.

1.3. RBI revises asset liability management guidelines On 2018

Guidelines on ALM system issued in February 1999(first revised), covered, inter alia, interest rate risk and liquidity risk measurement/ reporting framework and prudential limits. Gap statements are prepared by scheduling all assets and liabilities according to the stated or anticipated reprising date or maturity date. As a measure of liquidity management, banks were required to monitor their cumulative mismatches across all time buckets in their statement of structural liquidity by establishing internal prudential limits with the approval of their boards/ management committees. As per the guidelines, in the normal course, the mismatches (negative gap) in the time buckets of 1-15 days and 16-28 days were not to exceed 20 percent of the cash outflows in the respective time buckets. In the era of changing interest rates, Reserve Bank of India (RBI) has now revised its Asset Liability Management guidelines. Banks have now been asked to calculate modified duration of assets (loans) and liabilities (deposits) and duration of equity.k

II.REVIEW OF LITERATURE

<u>2.1ARTICLESOF ASSETS AND LIABILITY MANAGEMENT</u>

<u>Review 1:</u>

<u>Topic</u>: Integrating Assets and Liability Risk Management with portfolio optimization for individual investors

<u>Author</u>:Travis L Jones, Ph.D*

A majority of private client practitioners rely on mean-variation optimization (MVO),rulesof thumb ,or model portfolios for making asset allocation recommendations considerations for income levels and other constraints figure into the typical approach.However not enough attention is given to the nature of an investors multiple time horizons and implications for cashflows. These are the future demand placed upon the portfolio.The risk that these demand will not be met need to be clearly understood in order to validate any asset allocation decision.Thisstudy present an approach of incorporating MVO with in a multi.horizon ,asset-liability management risk model .This approach allows for cash flow matching of a portion of an investor's portfolio with in the optimization framework .

Review 2:

2.2.Topic : Linking profit to asset liability management of domestic and foreign banks in the U.K

Author : Kyriaki kosmidou,fotios pasiouras and Jordan Fbro poulos.

The paper employs the statistical cost accounting method on a sample of 36' domestic and 44 foreign banks operating in the UK over the period 1996-2002 to examine the relationship between profits and asset liability composition ,the sample was initially split into high and low profit banks by comparing their operating profit with the industry average ,the results show that high profit bank experience consideration lower cost of liability for most source of funding.which can cover any losses from most the lower rate of return on assets that the experience compared to their lower profit competitors ,the sample was then split into domestic and foreign banks .

Review2. 3: Topic :A methad for strategic asset liability management with an application to the Federal Home Loans Bank of New York.

Author: S.Seshadri A.Khanna,F.Harche

Strategic asset liability management is a primary concern in today's banking environment .In this papers ,we present a methodology to assist in the process of asset liability selection in a stochastic interest rate environment ,In over approach a quadratic optimizer is embedded in a simulation model and used to generate patterns of dividends market value and duration of capital ,for randomly generate interest rate scenarios.This approach can be used to formulate ,test, and refine asset liability strategies.

2.4.Review 4:

Topic:Derivatives and pension fund asset-liability management

Author:Meije smink

Department of finance

Financial Derivatives can substantially alter the risk and return profile of investment portfolios.However modeling the merits of derivatives and financial calculations involving the future performance of derivatives can be easily misleading.Arbitrage free raising techniques are required to avoid exploitation of the scenario structure underlying the performance evaluation.Further,for strategic asset allocation decisions compatibility with long term historical data is desirable.Since risk neutral pricing models eliminate asset risk premiums they do not represent expected developments correctly. Therefore, we should add back the risk premiums in a way that is consistent with the models.In this article we consider the role of derivatives for pension fund asset-liability management.Using a simulation approach that integrates a term structure model with an economic model.

2.5.THEORETICAL FRAMEWORK

2.5.1.ASSET LIABILITY MANAGEMENT (ALM) SYSTEM

Asset-Liability Management (ALM) can be termed as a risk management technique designed to earn an adequate return while maintaining a comfortable surplus of assets beyond liabilities. It takes into consideration interest rates, earning power, and degree of willingness to take on debt and hence is also known as Surplus Management.

But in the last decade the meaning of ALM has evolved. It is now used in many different ways under different contexts. ALM, which was actually pioneered by financial institutions and banks, are now widely being used in industries too. The Society of Actuaries Task Force on ALM Principles, Canada, offers the following definition for ALM: "Asset Liability Management is the on-going process of formulating, implementing, monitoring, and revising strategies related to assets and liabilities in an attempt to achieve financial objectives for a given set of risk tolerances and constraints."

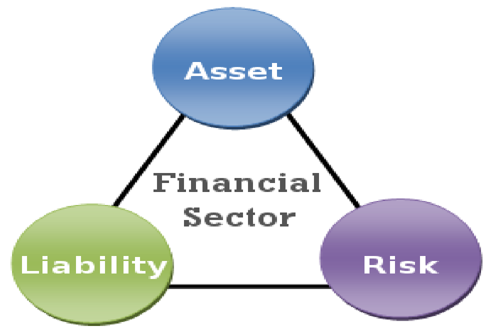

Fig.2.1. Basis of Asset-Liability Management

Traditionally, banks and insurance companies used an accrual system of accounting for all their assets and liabilities. They would take on liabilities - such as deposits, life insurance policies or annuities. They would then invest the proceeds from these liabilities in assets such as loans, bonds or real estate. All these assets and liabilities were held at book value.

Consider a bank that borrows 1Crore (100Lakhs) at 6 % for a year and lends the same money at 7 % to a highly rated borrower for 5 years. The net transaction appears profitable-the bank is earning a 100 basis point spread-but it entails considerable risk. At the end of a year, the bank will have to find new financing for the loan, which will have 4 more years before it matures. If interest rates have risen, the bank may have to pay a higher rate of interest on the new financing than the fixed 7 % it is earning on its loan.

Suppose, at the end of a year, an applicable 4-year interest rate is 8 %. The bank is in serious trouble. It is going to earn 7 % on its loan but would have to pay 8 % on its financing. Accrual accounting does not recognize this problem. Based upon accrual accounting, the bank would earn Rs 100,000 in the first year although in the preceding years it is going to incur a loss.

The problem in this example was caused by a mismatch between assets and liabilities. Prior to the 1970's, such mismatches tended not to be a significant problem. Interest rates in developed countries experienced only modest fluctuations, so losses due to asset-liability mismatches were small or trivial.

III. METHODOLOGY

The study of **ALM Management** is based on two factors.

a. Primary data collection.
b. Secondary data collection

2.6.PRIMARY DATA COLLECTION:

The sources of primary data were from: - Gathering the information from other managers and other officials of the organization.

2.7.SECONDARY DATA COLLECTION:

Collected from books regarding journal, and management containing relevant information about ALM and Other main sources were

- Annual report of **The Housing Development Finance Corporation Limited (HDFC)**
- Published report of **The Housing Development Finance Corporation Limited (HDFC)**
- **RBI** guidelines for **ALM.**

3.1. TOOLS AND TECHNIQUES

- A comparative statement is a document that compares particular financial statement with the same financial report generated by another company.
- A common size balance sheet that displays both numeric value and relative percentage for total assets and liabilities etc.
- Ratio analysis is used to evaluate various aspects of a company' s operating and financial performance such as its efficiency, liquidity, profitability and solvency.

Statistical tools:-The statistical tools used for the study and the analysis include graphs, tables and ratios.

3.2.LIMITATIONS OF THE STUDY

- This subject is based on past data of The Housing Development Finance Corporation Limited (HDFC).

- The analysis is based on structural liquidity statements and gap analysis.
- Approximate results: The results are approximated, as no accurate data is Available.
- Study takes into consideration only LTP and issue prices and their difference for Concluding whether an issue is overpriced or underpriced leaving others.

IV.INDUSTRY PROFILE & COMPANY PROFILE

As per the Reserve Bank of India (RBI), India' s banking sector is sufficiently capitalized and well-regulated. The financial and economic conditions in the country are far superior to any other country in the world. Credit, market and liquidity risk studies suggest that Indian banks are generally resilient and have withstood the global downturn well.

A **bank** is a financial institution that accepts deposits and channels those deposits into lending activities. Banks primarily provide financial services to customers while enriching investors. Government restrictions on financial activities by banks vary over time and location. Banks are important players in financial markets and offer services such as investment funds and loans.

India' s banking sector is constantly growing. Since the turn of the century, there has been a noticeable upsurge in transactions through ATMs, and also internet and mobile banking.

4.1. History

4.1.1.Origin of the word

The name *bank* derives from the Italian word *banco*"desk/bench", used during the Renaissance by Jewish Florentine bankers, who used to make their transactions above a desk covered by a green tablecloth. However, there are traces of banking activity even in ancient times, which indicates that the word 'bank' might not necessarily come from the word 'banco'.

The earliest evidence of money-changing activity is depicted on a silver drachma coin from ancient Hellenic colony Trapezus on the Black Sea, modern Trabzon, c.350– 325 BC, presented in the British Museum in London. The coin shows a banker's table (*trapeza*) laden with coins, a pun on the name of the city.

In fact, even today in Modern Greek the word Trapeza (*Τράπεζα*) means both a table and a bank.

4.1.2. Market Size

The Indian banking system consists of 26 public sector banks, 25 private sector banks, 43 foreign banks, 56 regional rural banks, 1,589 urban cooperative banks and 93,550 rural cooperative banks, in addition to cooperative credit institutions. Public-sector

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banks control nearly 80 percent of the market, thereby leaving comparatively much smaller shares for its private peers.

4.1.3. Investments/developments

In the past few months, there have been many investments and developments in the Indian banking sector

- Global rating agency Moody's has upgraded its outlook for the Indian banking system to stable from negative based on its assessment of five drivers including improvement in operating environment and stable asset risk and capital scenario.
- The Reserve Bank of India (RBI) has granted in-principle licenses to 10 applicants to open small finance banks, which will help expanding access to financial services in rural and semi-urban areas.
- The RBI has given in-principle approval to 11 applicants to establish payment banks. These banks can accept deposits and remittances, but are not allowed to extend any loans.
- The RBI has allowed third-party white label automated teller machines (ATM) to accept international cards, including international prepaid cards, and said white label ATMs can now tie up with any commercial bank for cash supply.
- The RBI has allowed Indian alternative investment funds (AIFs), to invest abroad, in order to increase the investment opportunities for these funds.

4.1.4. Government Initiatives

The government and the regulator have undertaken several measures to strengthen the Indian banking sector.

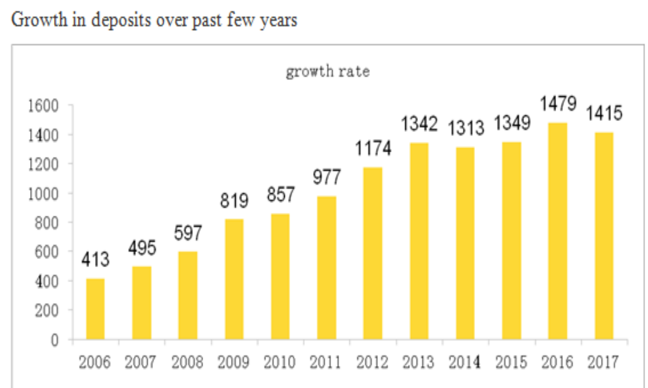

Fig.4.1. Growth in deposits over past few years

4.2. PROFILE OF THE BANK

The Housing Development Finance Corporation Limited (HDFC) was amongst the first to receive an 'in principle' approval from the Reserve Bank of India (RBI) to set up a bank in the private sector, as part of the RBI's liberalization of the Indian Banking Industry in 1994. The bank was incorporated in August 1994 in the name of 'HDFC Bank Limited', with its registered office at Mumbai, India. HDFC Bank commenced operations as a Scheduled Commercial Bank in January 1995.

4.3. OVERVIEW OF THE INDUSTRY

HDFC is India's premier housing finance company and enjoys an impeccable track record in India as well as in international markets. Since its inception in 1977, the Corporation has maintained a consistent and healthy growth in its operations to remain the market leader in mortgages. Its outstanding loan portfolio covers well over a million dwelling units. HDFC has developed significant expertise in retail mortgage loans to different market segments and also has a large corporate client base for its housing related credit facilities. With its experience in the financial markets, a strong market reputation, large shareholder base and unique consumer franchise, HDFC was ideally positioned to promote a bank in the Indian environment.

V.DATA ANALYSIS AND INTERPRETATION

5.1. RISK MANAGEMENT SYSTEM:

Assuming and managing risk is the essence of business decision-making. Investing in a new technology, hiring a new employee, or launching a marketing campaign is all decisions with uncertain outcomes. As a result all the major management decisions of how much risk to take and how to manage the risk.

The implementation of risk management varies from business to business, from one management style to another and from one time to another. Risk management in the financial services industry is different from others. Circumstances, Institutions and Managements are different.

Risk management can be integrated into a risk management system. Such a system can be utilized to manage the trading position of a small-specialized division or an entire financial institution.

The burden of the Risk and its Costs are both manageable and transferable. Financial service firms, in the addition to managing their own risk, also sell financial risk management to other.

5.2. RISK MANAGEMENT IN HDFC

Asset and liability management (ALM) is “ the Art and Science of choosing the best mix of assets for the firm’ s asset portfolio and the best mix of liabilities for the firm’ s liability portfolio” . It is particularly critical for Financial Institutions.

For a long time it was taken for granted that the liability portfolio of financial firms was beyond the control of the firm and so management concentrated its efforts on choosing the asset mix.

Asset and liability management program evolve into a strategic tool for management, the main elements of the ALM system are:

- ALM INFORMATION.
- ALM ORGANISATION.
- ALM FUNCTION.

5.3. ALM INFORMATION:

ALM is a risk management tool through which Market risks associated with business are identified, measured and monitored to maintain profits by restructuring Assets and Liabilities. The **ALM** framework needs to

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be built on sound methodology with necessary information systems as back up. Thus the information is a key element to the **ALM** process.

There are various methods prevalent worldwide for measuring risks. These range from the simple Gap statement to extremely sophisticate and data intensive *Risk adjusted profitability measurement* (RAPM) methods. The central element for the entire **ALM** exercise is the availability of adequate and accurate information.

Data Interpretation

Gap Analysis:

The Gap or mismatch risk can be measured by calculating Gaps over different time buckets as at a given date. Gap analysis measures mismatches between rate sensitive liabilities and rate sensitive assets including off-balance sheet position.

An asset or liability is normally classified as rate sensitive if:

- If there is a cash flow within the time interval
- The interest rate resets or reprocess contractually during the interval.
- RBI changes the interest rates i.e., on saving deposits, export credit, refinance, CRR balances and so on, in cases where interest rates are administered.
- It is contractually pre-payable or withdraw able before the stated maturities.

The Gap is the difference between Rate Sensitive Assets (RSA) and Rate sensitive Liabilities (RSL) for each time bucket.

The **positive GAP** indicates that **RSAs** are more than **RSLs (RSA>RSL).**

The **negative GAP** indicates that **RSAs** are less than **RSALs (RSA<RSL).**

They can implement **ALM** policies for the better identification of the mismatch, risk and for the implementation of various remedial measures

Table showing relationship between gap, interest rate and NII

Gap	Cause	Interest Rate	Profit(NII)
Positive	RSA>RSL	Rise	Rise
(Asset)		Fall	Fall
Negative	RSA<RSL	Rise	Fall
(Liability)		Fall	Rise
Zero	RSA=RSL	Rise	No effect
		Fall	No effect

GAP(t) = RSA(t)-RSL(t)

NII= Interest income-Interest expenditure

SCOPE OF THE STUDY

- The study will be helpful to know in managing the asset liability management and the profitability of management.
- This study also suggests the ways and means for improving the asset management in bank. It also helps to know the proper management of asset and liability management.

- This study is helpful to know the financial performance of the bank.
- We can gain the practical knowledge and experience of the bank. The management will be helpful to identify the risks of the bank.

CONCLUSION

The purpose of ALM is not necessarily to eliminate or even minimize risk. The level of risk will vary with the return requirement and entity' s objectives.

Financial objectives and risk tolerances are generally determined by senior management of an entity and are reviewed from time to time.

All sources of risk are identified for all assets and liabilities. Risks are broken down into their component pieces and the underlying causes of each component are assessed.

Risk exposure can be quantified 1) relative to changes in the component pieces, 2) as a maximum expected loss for a given confidence interval in a given set of scenarios, or 3) by the distribution of outcomes for a given set of simulated scenarios for the component piece over time.

Regular measurement and monitoring of the risk exposure is required. Operating within a dynamic environment, as the entity' s risk tolerances and financial objectives change, the existing ALM strategies may no longer be appropriate. Hence, these strategies need to be periodically reviewed and modified. A formal, documented communication process is particularly important in this step.

REFERENCES

1. P.M.Dileep Kumar Management Research magazine

2. M.Y. Khan Mcgraw India financial system 5th Edition (jan-2018)

3. Gustavson Hoyt : Risk management Thomson learning (2013)

4. O.P Agarwal: Financial derivatives and risk management

5. Rene M.stult :Risk management and derivatives

Books:-

1. Khurana S.K: Asset-liability management, skylark publication.
2. Bagchi S.K(2005): " Treasury Risk Management" , Jaico publishing house
3. Peter Rose: " Commercial Bank Management" , Mcgraw Hill Irwin.
4. Desai Vasant: " Principles of Bank Management" , Bombay: Himalaya Publishing house.

Websites:

- www.financeindia.com
- www.rbi.org.in
- www.scribd.com
- www.iba.org.in
- www.hdfc.com
- www.isc.gov.india

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