

# AN ANALYSIS OF ASSETS-LIABILITY MANAGEMENT IN BANKING: A CASE STUDY OF YES BANK

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## ABSTRACT

The Indian banking sector has witnessed very fast growth. Competitive business in asset and liabilities, changing interest rates and foreign exchange rates has brought pressure on banks to maintain good profitability and assets and liability management. Assets and liability management (ALM) is a systematic and dynamic process of planning, organizing, coordinating, controlling the assets and liabilities of banks. With adherence to objectives of the study, assets liability management and the performance of profitability of Yes bank have been studied. Yes banks today need to match their assets and liabilities and at the same time balancing their objectives of profitability, liquidity and risk. Calculating the various ratios and critically analyzing them, it is evident that bank performing satisfactorily in terms of credit deposit ratio, quick ratio, other income to total income and interest spread because this ratios show increasing trend of yes bank.

**KEYWORDS:** Asset-liability management, Liquidity, Net Interest Margin, Accounting ratio, Risk, and Solvency.

## 1. INTRODUCTION

The success of bank depends upon the fact that how efficiently it uses its assets and maintains sound solvency position. This is possible only with help of effective Asset and Liability Management (ALM). Assets liability management (ALM) is managing infrastructure asset to minimize the total cost of borrowing and delivering the service as per customer's desire. It refers to a systematic process of effectively maintaining, upgrading and operating assets, and providing the tools to facilitate a more organized and flexible approach to meet expectations of stake holders and the public. Asset liability management has been a greater concern for banks due to uncertainties and volatility in the market and unpredictable macro factors in domestic and global markets. Technological advancement, new product innovations, latest management practices brought in by new private players and foreign banks added further stress on the functioning of banks. Under these compelling situations, ALM objective is to control volatility of net interest income and net economic value of respective banks. The success of banking system depends on the appropriate asset liability management which in turn depends on the effective policies, governance and risk management practices.

## 2. LITERATURE REVIEW

Dash and Pathak (2011), his survey proposed on linear model for asset-liability assessment. They found public sector banks are having the best asset-liability management positions. in turn, they found that public sector banks had a strong short-term liquidity position, but with lower profitability, while private sector banks had a comfortable short-term liquidity position, balancing profitability.

Dr. Anurag Singh, Priyanka Tandon (2012) Asset-Liability Management (ALM) is one of the important tools of risk management in commercial banks of India. The banking industry of India is exposed to number of risk prevailed in the market. The research paper discusses about issues in asset liability management.

Sayeed (2012), attempted to examine the impact of asset and liability management on the profitability high profitable and low profitable and private and public banks working in Bangladesh applying statistical cost accounting (SCA) methods and found high earning banks experience higher returns from their assets and lower returns from their liabilities than the low earning banks

Petraityte (2013) states that ALM is a tool that combines several bank portfolios - asset, liabilities, and the difference between the banks received and interest paid by the bank. The main ALM purpose is to connect different bank activities into a single unit, facilitating liquidity and balance sheet management.

Kumar, (2014), studied on research, the most important factor which banks required to manage now days is liquidity. This study analyzed short term liquidity and maturity gap of the banks in order to decreases risk in banking sector. This survey help banks to reduce the risk which is very essential for all financial institution in India.

Shetty (2016) conducted a study on an analysis of private banks exposure to asset liability management. These paper attempts to assess the liquidity risk that all five private sector banks are exposed to spread over a period from 2011 to 2015. The finding from the study revealed that banks have been exposed to liquidity risk. The study also indicated that HDFC bank and ICICI bank have better ALM framework in practice.

Md. Salim, & Anamul Haque (2016) investigated the impacts of ALM policy on the profitability of sample banks working in Bangladesh. The rationality of this study is to observe the degree of relationship of different assets and liability variables with profitability through applying Statistical Cost Accounting (SCA) model using time series data from 2003 to 2014 to identify the relationship among the variables. After analysis, Loans & Advances is found to have a significant positive relationship with banks' profitability.

Ms. Pooja Patel, Ms. Nandini (2016) studies the Asset Liability Management in Indian Bank balance sheet structure in such a way the net earnings from interest are maximized within the overall risk preference of the banks. This study examined the effect of ALM on the Five Private Sector Banks profitability in Indian financial market by using Gap Analysis and Ratio Analysis Technique. The finding from the study revealed that banks have been exposed to liquidity risk.

Prabhakar, Dr. S. Mathivannan, J. Ashok kumar (2017) studied asset liability of the banks' balance sheet of commercial banks posed serious challenges as the banks, which have direct impact on their operations, profitability and efficiency to compete with. The RBI of the country focused and advised banks for taking concrete steps in minimizing the mismatch in the asset-liability management. There had been many positive impacts of various strategies followed by banks in the last one decade.

Tee (2017), evaluated on asset liability management and the profitability of listed banks in Ghana. The purpose of this paper is to assess the impact of asset and liability management on the profitability of listed banks in Ghana. Multiple linear regression has been applied by taking roa as the dependent variable, and TAS (the total asset) and TLT (the total liability) representing the asset and liability mix of the banks.

### 3. PROFILE OF THE BANK

Yes Bank Limited is an Indian private sector bank founded by Rana Kapoor and Ashok Kapoor. Yes Bank was incorporated as a Public Limited Company on November 21, 2003. Subsequently, on December 11, 2003, RBI was informed of the participation of three private equity investors Citicorp International Finance Corporation, Chrys-Capital II, LLC and AIF Capital Inc namely.), to achieve the financial closure of the Bank. RBI by their letter dated May 24, 2004, under Section 22 (1) of the Banking Regulation Act, 1949, granted us the licence to commence banking operations in India on certain terms and conditions including a term that 49.0% of our pre-Issue share capital held by the Promoters. It primarily operates as a corporate bank, with retail banking and also asset management as subsidiary function. Yes Bank Limited derives most of its revenue through arranging syndicated loans and through corporate. It operates as three entities - Yes Bank, Yes Capital and Yes Asset Management Services. As per the bank's website and information published, these are bifurcated as:

- Corporate and Institutional Banking
- Commercial Banking
- Investment Banking
- Corporate Finance
- Financial Marketing
- Retail Banking

As per the data available on Yes bank website as of September 2018, Yes bank had taken syndicate loans from eight large international entities including ADB, OPIC, European Investment Bank, bank in Tiwan and Japan for amounts ranging from US\$ 30 Millon to US\$ 410 Millon, which it in turn lends to small and medium scale enterprises as well as large corporate. It has also both taken as well as given short term loans to a number of retail and corporate banks in Taiwan, Japan, USA and Europe. It has a strategic partnership with the US government based OPIC and with Wells Fargo. As on 30 June 2019, Yes Bank had 1,122 branches and 1,220 ATM in India.

#### 4. SIGNIFICANCE OF STUDY

Asset and liability management is a new technique to build a framework for banking activities to perform better and to take best decisions. Asset and liabilities management become essential tools to evaluate the risk facing by the bank in maintaining asset and liability to ensure profitability of the business. Assessing the quality of assets in banking sector play a vital role in progress and development of performance of banking sectors, which may make a study of ALM is essential and significant.

#### 5. OBJECTIVES OF THE STUDY

1. To study the Profitability Position of Yes Bank.
2. To study the Performance of Debt Coverage Ratio of Yes Bank.
3. To Give Recommendations And Suggestions For The Study.

#### 6. RESEARCH METHODOLOGY:

The present study is predominantly exploratory in nature. The secondary data is taken on the financial and accounting data of yes bank. The study covered the data collected from the major financial details such as balance sheets, annual reports of the yes bank for the period of 2012-13 to 2016-17. In addition to the above sources data obtained from published and unpublished sources. The multivariate statistical technique and ratio analysis was used to interpret the financial statements and analyze the data to know the asset and liability position of the bank.

#### 7. COMPONENTS OF ASSETS LIABILITY MANAGEMENT:

ALM leads to the formulation of critical business policies, efficient allocation of capital, and designing of product with appropriate pricing strategies. therefore, this study showcases those ratios and assets liability management on the profitability position of the banks. the calculations are based upon the following formulas

##### 7.1. Interest spread

It is the difference between borrowing and lending rates of banks in the financial year. It is similar to the profit margin. Larger interest rate spread the earning will be more and fluctuation in interest rate spread decrease income.

##### 7.2. Adjusted cash margin

It is a profitability ratio and it is also called as true margin.

##### 7.3. Net profit margin

It is the percentage of revenue left after all expenses, tax and preference stock have been deducted from sales. Net income after tax.

##### 7.4. Adjusted return on net worth

It is the method of valuating the value of a bank by using capital value and surplus value.

##### 7.5. Current ratio

The current ratio is a ratio that measures a bank ability to pay short-term obligations. The current ratio considers company total current assets relative to that company's current total liabilities. The standard ratio is 2:1 Current asset/current liabilities.

##### 7.6. Quick ratio

The quick ratio is a financial ratio, also known as acid test ratio used to analyses the company's liquidity. Quick ratio can be measure of liquidity of a bank than its current ratio. The standard ratio is 1:1.

##### 7.7. Capital adequacy ratio

Capital adequacy ratio is a measure of a bank's capital. it is expressed as a percentage of a bank's risk weighted credit exposures. Capital adequacy ratio = (tier one capital + tier two capital)/risk weighted assets

##### 7.8. Credit deposit ratio

Credit deposit ratio is the ratio with which it could be analyzed of how much a bank lends out of the deposits it has mobilized. It indicates the financial strength of the bank.

##### 7.9. Investment deposit ratio

Investment deposit ratios mainly provide information about how the bank is using their deposits, for better investment.

##### 7.10. Cash deposit ratio

Cash deposit ratio indicates the amount of money a bank should have as a percentage of the total amount of money its customers have paid into the bank.

##### 7.11. Total debts to owner's fund

It can be measurement of a bank's financial leverage. The concept of timing and rate of interest in ALM is a key because managers need to know at what time the liability will be paid and to insure about availability of assets to pay this liability to minimize risk factors in banking sectors.

## 8. DATA ANALYSIS AND INTERPRETATION

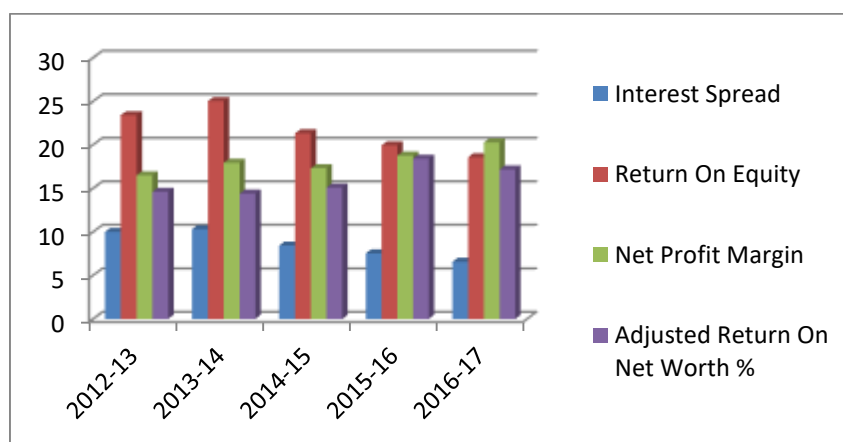
### 8.1 The Performance of Profitability Ratios in Yes Bank:

**Table no. 1**  
**Profitability Ratios**

Year	Interest Spread	Return On Equity	Net Profit Margin	Adjusted Return On Net Worth %
2012-13	10.0	23.4	16.5	14.6
2013-14	10.3	25.02	17.94	14.40
2014-15	8.43	21.33	17.32	15.09
2015-16	7.53	19.94	18.76	18.41
2016-17	6.56	18.58	20.27	17.16
<b>Total</b>	<b>42.82</b>	<b>108.27</b>	<b>90.79</b>	<b>79.66</b>

Source: www.yesbank.in

**Graph-1. Profitability Ratios**



As per table 1 the profitability ratios has been classified four categories of ratios such as interest spread, return on equity, net profit margin, adjusted return on net worth. The overall interest spread and return on equity was recorded the value of 42.82 and 108.27 respectively. The overall net profit margin and adjusted return on net worth was recorded the value of 90.29 and 76.66 respectively. In the context of interest spreads shows decreasing trend, was recorded the value of 10.03 to 6.56 from 2012-13 to 2016-17. Further the return on equity shows the decreasing trend, was recorded the value of 25.02% to 17.7% from 2012-13 to 2016-17 respectively. The net profit margin shows the increasing trend, was recorded the value of 17.32 to 20.84 from 2012-13 to 2016-17 respectively. Lastly the adjusted return on net worth shows the mix trend.

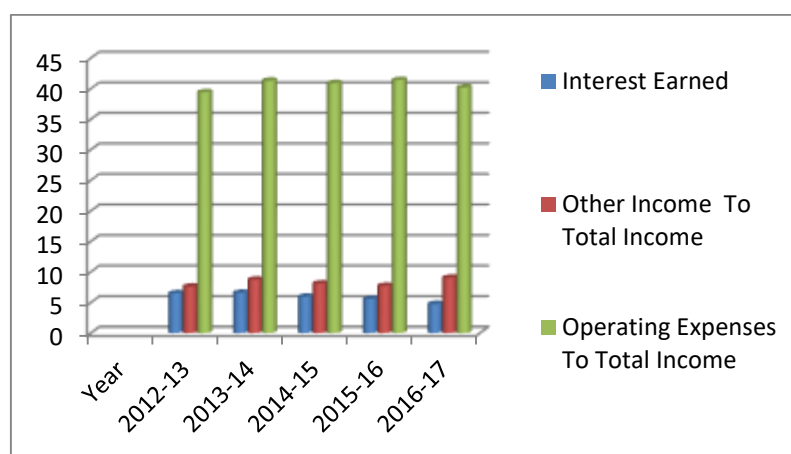
### 8.2 The Performance of Profit And Loss Account Ratios of Yes Bank

**Table-2**  
**Profit And Loss Account Ratios of Yes Bank**

Year	Interest Earned	Other Income To Total Income	Operating Expenses To Total Income
2012-13	6.5	7.6	39.4
2013-14	6.59	8.74	41.3
2014-15	5.95	8.09	40.9
2015-16	5.59	7.72	41.4
2016-17	4.75	9.05	40.2
<b>Total</b>	<b>29.38</b>	<b>41.2</b>	<b>203.2</b>

Source: www.yesbank.in

Graph-2. Profit And Loss Account Ratios of Yes Bank



As per data of table 2 the profit and loss account ratios has been classified three categories of ratios such as, interest expended to interest earned, other income to total income, operating expenses to total income. The overall interest expended to interest earned ratio and other income to total income and also operating expenses to total income, was recorded the value of 29.38, 41.2 and 203.2 respectively. In the context of interest expended to interest earned ratio shows decreasing trend, was recorded the value of 6.5 to 4.75 from 2012-13 to 2016-17 respectively. Further the other income to total income shows the decreasing trend, and recorded the value of 8.8 to 7.01 from 2012-13 to 2016-17 respectively. The operating expenses to total income shows the increasing trend and recorded the value of 39.4 to 40.2 from 2012-13 to 2016-17 respectively. It indicates bank is not quite safe and it does indicate inefficiency.

### 8.3 The Performance of Balance Sheet Ratios of Yes Bank

**Table-3**  
**Balance Sheet Ratios of Yes Bank**

Year	Capital Adequacy Ratio	Current Ratio	Quick Ratio
2012-13	14.4	0.55	28.73
2013-14	15.6	0.47	28.76
2014-15	16.5	0.44	28.34
2015-16	17.0	0.35	27.02
2016-17	17.1	0.33	26.4
Total	80.6	2.14	139.25

Source: www.yesbank.in

**Graph 3 Balance Sheet Ratios of Yes Bank**

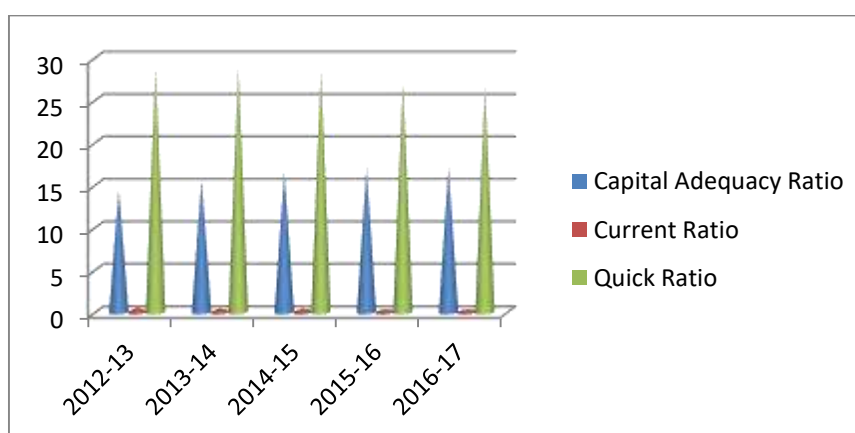


Table no. 3 depicts that performance of balance sheet ratios of yes bank. The balance sheet ratio has been measured three categories of ratios such as, capital adequacy ratio, current ratio and quick ratio etc. the overall capital adequacy ratio and current ratio and also quick ratio, was recorded the value of 80.6, 2.14 and 139.25 respectively. In the context of capital adequacy ratio shows the slight increasing trend, was recorded the value of 14.4 to 17.0 from 2012-13 to 2016-17 respectively. Further the current ratio shows, the decreasing trend, was



recorded the value of .55 to .33 from 2012-13 to 2016-17 respectively. The quick ratio shows, the stable trend was recorded the value of 28.73 to 27.0 from 2012-13 to 2016-17 respectively.

#### 8.4 The Performance of Debt Coverage Ratio in Yes Bank

**Table no. 4**  
**Debt Coverage Ratio in Yes Bank**

Year	Credit Deposit Ratio	Cash Deposit Ratio	Total Debt To Equity
2012-13	75.00	5.85	0.56
2013-14	79.33	5.92	0.55
2014-15	68.64	5.43	0.47
2015-16	90.53	5.00	0.44
2016-17	84.00	5.03	0.35
<b>Total</b>	<b>397.5</b>	<b>27.23</b>	<b>2.37</b>

Source: www.yesbank.in

**Graph-4 Debt Coverage Ratio in Yes Bank**

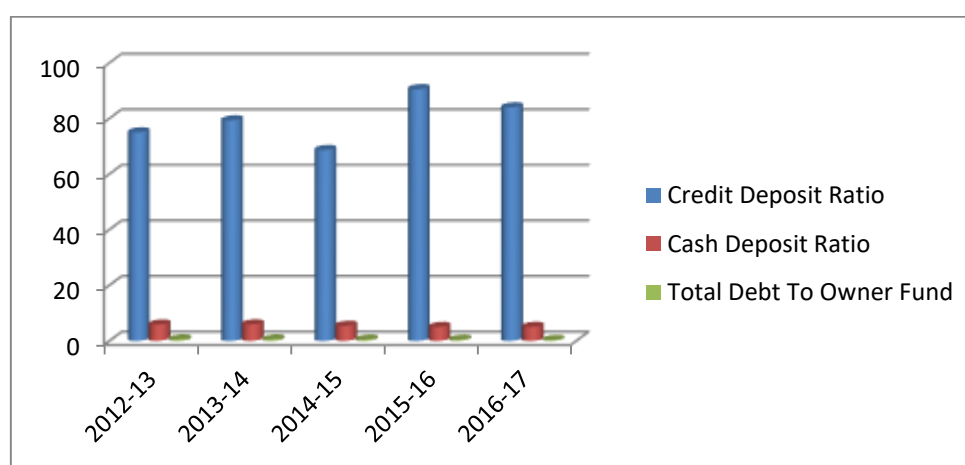


Table no. 4 depicts the debt coverage ratio and has been measured three categories of ratios such as, credit deposit ratio; cash deposit ratio and total debt to owner fund. The overall credit deposit ratio and cash deposit ratio and also total debt to owner fund, was recorded the value of 397.5, 27.23 and 2.37 respectively. In the context of credit deposit ratio, shows the increasing trend, was recorded the value of 75 to 84 from 2012-13 to 2016-17 respectively. Further the cash deposit ratio shows, the stable trend, and recorded the value of 5.92 to 5.03 from 2012-13 to 2016-17 respectively. The total debt to owner fund shows, the increasing trend and recorded the value of 0.53 to 0.35 from 2012-13 to 2016-17 respectively.

#### 9. FINDINGS OF THE STUDY:

The following are the major findings of the study.

1. The overall interest spread and return on equity was recorded the value of 42.82 and 79.66 respectively.
2. The overall net profit margin and adjusted return on net worth was recorded the value of 90.79 and 108.27 respectively.
3. In the context of interest spreads shows decreasing trend, was recorded the value of 10.3 to 6.56 from 2012-13 to 2016-17.
4. The overall interest expended to interest earned ratio and other income to total income and also operating expenses to total income, was recorded the value of 29.38, 41.2 and 203.2 respectively.
5. In the context of interest expended to interest earned ratio shows increasing trend, was recorded the value of 6.5 to 4.75 from 2012-13 to 2016-17 respectively.
6. Further the other income to total income shows the decreasing trend, was recorded the value of 8.8 to 9.01 from 2012-13 to 2016-17 respectively.
7. The overall capital adequacy ratio and current ratio and also quick ratio, was recorded the value of 80.6, 2.14 and 139.25 from 2012-13 to 2016-17 respectively.
8. In the context of capital adequacy ratio shows the decreasing trend, was recorded the value of 14.4 to 17.0 from 2012-13 to 2016-17 respectively.
9. Further the current ratio shows, the decreasing trend, was recorded the value of 0.055 to 0.03 from 2012-13 to 2016-17 respectively.

10. The overall credit deposit ratio and cash deposit ratio and also total debt to owner fund, was recorded the value of 397.5, 27.23 and 02.37 respectively.
11. In the context of credit deposit ratio, shows the increasing trend, was recorded the value of 79.0 to 84 from 2012-13 to 2016-17 respectively.
12. Further the cash deposit ratio shows, the decreasing trend, was recorded the value of 5.92 to 5.03 from 2012-13 to 2016-17 respectively.

#### 10. SUGGESTIONS FOR THE STUDY

The following are the major suggestions for the study:

1. The bank should try to improve net profit margin by curtailing and by by using value added services.
2. The bank has to control operating expenses, and current ratio.
3. Bank should be taken better management towards current assets and current liabilities which indicating week positive correlation.
4. The study suggests much scope for banks for monitoring and reducing short term liquidity and cash management.

#### 11. CONCLUSION

Asset-liability management play vital role in management and planning of assets and liabilities of banks, against the risk exposed due to the changing environment in the banking. Banking regulators require a minimum capital adequacy, net worth and capital deposit ratio. Therefore, Yes banks today need to match their assets and liabilities and at the same time balancing their objectives of profitability, liquidity and risk. Calculating the various ratios and critically analyzing them, it is evident that bank performing satisfactorily in terms of credit deposit ratio, quick ratio, other income to total income and interest spread because this ratios show increasing trend of yes bank.

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