A Study on Liquidity Position of Public Sector Banks in India after Liberalisation

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Abstract: *Introduction of reforms in the banking sector has changed the face of Indian banking industry. The globalization of operations and implementation of new technologies have led to increase in resource productivity, increasing level of deposits, credit and profitability. The objective of the study is to know the growth of the performance of Indian banks and to analyses the liquidity position of public sector banks after liberalization. In this study all the public sector banks were selected such as a19 Nationalised banks, 5 SBI Associates and SBI. We have chosen the liquidity ratios to analyse the liquidity position of the public sector banks. The statistical tools also used in this study such as standard deviation, co-efficient of variation, compound annual growth rate and two way ANOVA. Through this study we found that the overall liquidity position of Nationalized banks and SBI Associates are comparatively better than SBI.*

Keywords: Reforms, Liquidity, Public Sector Banks, SBI, SBI Associates, Nationalized Banks

1. Introduction

A sound financial system is a fundamental ingredient for a healthy and vibrant economy. An effective financial system is conducive to economic growth by mobilizing the savings and its deployment in different sectors of economy. The Indian financial sector constitutes an impressive network of banks and financial institutions and a wide range of financial instruments.

Banking is the major sector of economy that has achieved renewed focus after financial sector reforms and the entry of private sector banks. The bankingsector is the foundation of modern economic development and the backbone of development strategy. It forms the core of the financial sector of an economy. Through mobilization of resources and the better allocation, commercial banks play an important role in the development process of under developed countries. Commercial banks improve the allocation of resources by lending money to priority sector of economy. These banks provide a meeting ground for the savers and investors.

Nowadays, the Indian banking sector is fairly developed in terms of supply, product range and reach. But the ability to reach rural India still remains a challenge for the private sector and foreign banks. In terms of quality of assets and capital adequacy, Indian banks are considered to have clean, strong and transparent balance sheets relative to other banks in comparable economies in Asia. The reserve bank of India also mainly concerned with providing finance to weaker section of society, development of priority sector and providing credit under differential rate of interest scheme.

Before liberalization there was a monopoly of public sector banks (PSB's) after reforms in 1991, the entry of many foreign and private players have been permitted. Post liberalization demand PSB's to compete with well diversified and resource rich foreign banks and to provide fine funded services and unique products to suit customer need. PSB's have already sacrificed profits for achievement of social objectives. Due to cut throat competition and technology, the PSB'S are thinking to improve productivity and profitability which is essential to survive in a globalized economy.

The future of PSB's would be based on the capability to continuously build good quality assets in an increasingly competitive environment and maintaining capital adequacy and stringent prudential norms. Consolidation and competition may be key factors impacting the nationalized banks in future. Due to reforms, it has been felt that there is a need not only to increase in profits but also reduction in nonperforming assets (NPA's) of banks.

Reforms in the Banking Sector
Banking sector reforms were initiated to upgrade the operating standards, health and financial soundness of banks to internationally accepted levels in an increasingly globalize market. The Government of India setup the Narashimam committee (1991) to examine all aspects relating to structure, organization, and functioning of the Indian banking system. The recommendations of the committee aimed at creating a competitive and efficient banking system. Measures like capital adequacy, income recognition, asset classification, norms for investment, entry of private sector banks, gradual reduction of Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR) were recommended and implemented to strengthen the banking system. These recommendations were changed the face of Indian banking. Public sector banks faced a stiff competition with the entry of private sector banks.

Another committee which deserves mention is the Khan committee, which was constituted by the RBI in December 1997 to examine the harmonization of the role and operations of banks. It submitted its report in April, 1998. The major recommendations of the committee were gradual move towards universal banking; exploring the possibility of gainful mergers as between the banks; banks and financial

institutions encompassing both strong and weak entities or two strong one's; developing function- specific regulatory framework; establishment of a super regulator to supervise and co-ordinate the activities of multiple regulators; speedy implementation of legal reforms to hasten debt recovery; reducing cash reserve ratio to the international standards; and phasing out statutory liquidity ratio.

The Verma committee, which had been the most controversial, recommended the need for greater use of information technology (IT) even in the weak public sector banks but not merging them with strong banks, market driven mergers, sale of foreign branches; closure of subsidiaries of weak public sector banks and voluntary retirement for at least 25 percent of the staff.

The banking sector reforms aimed at improving the policy framework, financial health, and institutional infrastructure. Improvement in the policy framework has been undertaken by reducing the reserve requirements, changing of administered structure of lending rates, enlarging the scope of priority sector lending rates with the size of advances

The chief merit of reform process is that the reform measures were undertaken and implemented gradually and cautiously. Many of the important recommendations of Narasimham committee II (1998) have been accepted and implemented. The second generation banking reforms concentrate on strengthening the foundation of the banking system, technological up gradation, and human resource development.

Recommendations of the Narasimham committee (I and II)

Phase I: Recommendations of the Committee on Banking Sector Reforms, 1991 (Narasimham Committee I).
- Deregulation of the interest rate structure.
- Progressive reduction in pre-emptive reserves.
- Liberalization of the branch expansion policy.
- Introduction of prudential norms to ensure capital adequacy, proper income recognition, classification of asset based on their quality and provisioning against bad and doubtful debts.
- Decreasing the emphasis laid on directed credit and phasing out the concessional rate of interest to priority sector.
- Deregulation of the entry norms for private sector banks and foreign banks
- Permitting public and private sector banks to access the capital market.
- Setting up of the asset reconstruction fund.
- Constituting the special debt recovery tribunals.
- Freedom to appoint chief executive and officers of the banks.
- Changes in the constitutions of the board.
- Bringing NBFCs under the ambit of regulatory frame work.

Phase-II: - Recommendations of the committee on banking sector reforms, April 1988 (Narasimham committee)

Capital Adequacy
- Capital adequacy ratio to be raised from 8 percent to 10 percent by 2002.
- Hundred percent of fixed income port folio market- to-market by 2001(up from 70 percent).
- Five percent market risk weighted for fixed income securities and open foreign exchange position limit (no market risk weights previously).
- Commercial risk weight (100 percent) to government – guaranteed advances (previously treated as risk free).

Asset Quality
- Banks should aim to reduce gross non-performing assets to three percent and net NPA to zero percent by 2002.
- Ninety –day overdue norm to be applied for cash- based income recognition (down from 180 days).
- Government - guaranteed irregular accounts to be classified as NPAs and provide for.
- Asset Reconstruction Company to take on NPAs of weak banks against issue of risk- free bonds.
- Direct credit obligation to be reduced from 40 percent to 10 percent.
- Mandatory general provisions of one percent of standard assets and specific provisions to be made tax deductible.

Systems and Methods
- Banks to start recruitment of skilled, specialized manpower from market.
- Overstaffing to be dealt with by redeployment and right-sizing via voluntary retirement schemes.
- Public sector banks to be given flexibility in recommendations structure
- Rapid introduction of computerization and technology.

Industry Structure
- Only two categories of financial sector players to emerge: banks and non-bank finance companies; DFIs to convert to banks or remain non-bank companies.
- Mergers to be driven by market and business considerations, not imposed by regulators.
- Weak bank to convert to 'narrow banks', restructure, or close down if proven unviable.
- Entry of new private sector banks and foreign banks to continue.
- Banks to be given greater functional autonomy, and minimum government shareholding to be reduced to 33 percent from 55 percent for the State Bank of India and 51 percent for the public sector banks.

Regulation and Supervision
- Banking regulation and supervision to be progressively de linked from monetary policy.
- Board for financial regulation and supervision to be constituted with statutory powers; board members should be professionals.
- Greater emphasis on public disclosure as opposed to disclosure to regulators.

Legal Amendments
- Broad range of legal reforms to facilitate recovery of problem loans
- Introduction of laws governing electronic fund transfer.

Amendments in the Banking Regulation Act, the nationalization Act and the State Bank of India Act to allow greater economy, higher private sector share holding, and so on.

Capital Adequacy

Capital adequacy has emerged as one of the major indicators of the financial health of the banking entity. It is measured as a ratio of banks owned capital (equity, retained earnings, etc) to its risk- weighted assets (loans, investments in stock markets, guarantees, etc). Well adherence to capital adequacy regime does play a vital role in minimizing the cascading effects of banking financial sector crises. The higher the capital adequacy ratio (CAR), the stringer is considered a bank, as it ensures higher safety against bankruptcy. As Indian banks are gearing up to adhere to the internationally acclaimed Basel II norms, there is a growing emphasis on the improvement on banks performances on this front. It is noteworthy that a majority of the Indian banks have successfully improved their Capital adequacy ratio in line with the trends in global banking industry. A majority of the scheduled commercial banks now have a Capital adequacy ratio of more than 12 percent, which is well above the 9 percent mark as mandated by Basel Accord II.

Basel committee proposals(1988), which prescribes two tier of capital for banks: Tier-I capital which can be absorb losses without a bank being required to cease trading and Tier-II capital which can be absorb losses in the event of a winding-up.

(a) **Tier-I or core capital** (the most permanent and readily available support against unexpected losses) includes:
1) Paid up capital, statutory reserves, share premium
2) Capital reserve (representing surplus on the sale of assets and held in a separate account only to be included) and other those brought forward from previous periods.

(b) Tier-II capital includes:

1) Undisclosed reserves and fully paid up cumulative perpetual preferences share.
2) Revaluation reserves arising out of revaluation of assets that are undervalued in the banks book (liker bank premises and marketable securities).
3) General provisions and loss reserves, not attributable to the actual diminution in value or identifiable potential loss in any specific asset and available to meet unexpected losses.
4) Hybrid debt capital instrument that combine characteristics of equity and debts.
5) Subordinated debt that is fully paid up, unsecured, subordinated to the claims of others creditors, free of restrictive clauses, and not redeemable at the initiative of the holder or without the consent of the supervisory authority of banks. If subordinated debt carries a fixed maturity, it should be subject to progressive discount and have initial maturity of not less than 5 years.

Tier-II capital should not be more than 100 percent of Tier-I capital. Revaluation reserves should be applied a discount of 35 percent for inclusion in Tier-II capital. General provisions/loss reserves should not exceed 1.25 percent of the total weighted risk assets.

Statement of the problem

Nowadays banks have a vital role in the development of Indian economy by providing financial assistant for the industries. The banks are being viewed as a change agent that must develop and support not only single element of the national economy but also provide an effective link between the industrialist and consumer. The problem encountered in the way of efficient functioning necessitated the need for financial sector reforms in India. Hence, the government of India introduced financial sector reform in 1991 along with liberalization, privatization and globalization (LPG).

The economic reforms in India started in early nineties, but the effective is taking place now a days. Major changes took place in the functioning of banks in India only after liberalization, globalization and privatization. It has become very mandatory to study the performance of Indian banks. Increased competition, new information technologies and there by declining processing cost, the erosion of product and geographic boundaries, and less restrictive governmental regulations have played a major role for public sector banks in India to forcefully compete with private and foreign banks.

Introduction of reforms in the banking sector has changed the face of Indian banking industry. The globalization of operations and implementation of new technologies have led to increase in resources productivity, increasing level of deposits, credit and profitability and decrease in non-performing assets. Due to the transformation, every aspect of banking system is affected. Hence the current study has been undertaken to analyse the liquidity position of public sector banks in India in the light of various reforms carried out in India and also factors explaining the performance of public sector banks.

2. Review of literature

BrindsJagirdar and Amlendu, k.Dubey (2007)[1] conducted the study on "Performance of Public sector Banks". Performance of public sector banks argue that the relative performance of different bank groups, i.e. public, private or foreign appears to be correlated with the extent of their link with the market. Foreign banks are found to be more profitable than the non- traded private banks. In the analysis it was found the private and foreign banks are not found to be superior to public sector banks in any of the performance indicators namely ROA, OPR, NIM, OER.

Harpreetkohli and chawla (2007)[2] studied "Profitability Trends in Commercial Banks: A Study of select banks". The profitability performance of different banks during the study period found that most of the indicators have been shown the performance of the two private sector banks ICICI bank and Bank of Punjab the profitability has been better than the two public sector banks like SBI Group and Punjab National Bank. It is concluded that the entry of private sector banks has undoubtly contributed to the strengthening the Indian banking system by creating a competitive atmosphere. Enhancing efficiency and performance of public sector banks (2008) is a key objective of economic reforms in many countries including India. It is believed that private

ownerships improve efficiency and performance of banks. The study examined the impact of privatization on banks performance and efficiency using data of banks in India for the five year period 1998-2002. No significant performance or efficiency in difference was seen in these two cohorts of banks. Overall, going by the results of the study, partially privatized have continued to show improved performance and efficiency in the years after privatization.

Harish Kumar Singla (2008)[3] conducted the study on 'Financial Performance of Banks in India'**.** The study was undertaken to examine and understand how financial management plays a crucial role in the growth of banking. It is concerned with examining the profitability position of the selected six banks for a period of five years (2000-2001) to (2006-2007). The study revealed that the profitability position was reasonable during the study period when compared with the previous years. Return on investment proved that the overall profitability positions of selected banks were sustained at a moderate rate. With respect of debt equity position, it was evident that the companies were maintaining 1:1 ratio, through that the one point of time it was very high. Interest coverage ratio was continuously increasing, which indicated the bank's ability to meet interest obligations. Capital adequacy ratio was constant over the period of time. During the study period, it was observed that the return on net worth had a negative correlation with the debt equity ratio. Interest income to working funds also had a negative association with interest coverage ratio and the non-performing asset to net advances was negatively correlated with interest coverage ratio.

Boaz W Meso, Donatilla and Kaino(2008)[4] studied "A Study on financial liberalization and Bank Efficiency –The Case of Commercial Banks in Kenya" and examined profit efficiency of commercial banks in Kenya after financial sector reforms. The main objective in this empirical investigation is to measure profit efficiency of the banking sector. Research study was based on alternative profit efficiency [APE]. It is found that the mean profit efficiency in the banks with high net profits, loans reported low efficiency scores.

Dr.Mohi-ud-dinSangmi (2010)[5] studied "Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL model" effort has been made to evaluate the financial performance of the two major banks operating in northern India namely Punjab National Bank and Jammu and Kashmir Bank (JKB). These two banks were purposely selected for the study, keeping in view their role and involvement in shaping the economic conditions of northern India, specifically in terms of advances, deposits, man power employment, branch network etc. The study was mainly based on secondary data drawn from the annual reports of respective banks. The data is related to 5 years (2001-2005). The evaluation had been done by using CAMEL parameters. Through this model, it is highlighted that the position of the banks under study was sound and satisfactory so far as the capital adequacy, asset quality, management capability and liquidity is concerned.

Dr. Anurag, B.Singh and Priyanka Tandon (2012)[6] studied **"**Study of Financial Performance: Comparative

Analysis of SBI and ICICI".The purpose of the study is to examine the financial performance of SBI and ICICI bank, public sector and private sector respectively. The research is descriptive and analytical in nature. The data used for the study was entirely secondary in nature. The present study is conducted to compare the financial performance of SBI and ICICI bank on the basis of ratios such as credit deposit, net profit margin etc. The period of study taken is from the year 2007-08 to 2011-12. The study found that SBI is performing well and financially sound than ICICI bank but in context of deposit and expenditure ICICI bank has better managing efficiency than SBI.

Dr. M.Dhanabhakyam and M.Kavitha.(2012)[7] studied **"**Financial Performance of Selected Public Sector Banks in India." In this study attempt has been made to see the financial performance of the selected public sector banks with different norms. Ratio analysis, correlation and regression analysis was used. For this study six public sector are selected. The Indian banking system faces several difficult challenges. The selected public sector banks have performed well on the sources of the growth rate and financial efficiency during the study period.

Cheenu Goel and chitwan Bhutani Rekhi (2013)[8] conducted the study on "A Comparitive Study on the performance of Selected Public Sector and private sector Banks in India". This study attempts to measure the relative performance of Indian banks. This study covered the three years period from 2009 to 2012. Here different proxy indicators are used for measuring productivity of banking sector. Segmentation of banking sector in India was done on bank asset size. Overall, the analysis supports the conclusion that new banks are more efficient that old ones. The public sector banks are not as profitable as other sectors are. It means that efficiency and profitability are interrelated. The key to increase performance depends upon ROA, ROE and NIM.

Objectives of the Study
• To know the growth of the performance of Indian Banks
• To analyse the liquidity position of public sector banks in India

3. Research Methodology

Quantitative research design has been used for this study. The study covered the 25 public sector banks, in which 19 Nationalized banks, 5 SBI associates and SBI (N=25). The list of banks is given below.

S.no	Name of the Bank	Year of Inception
I		
1.	Allahabad Bank	1865
2	Andhra Bank	1923
3	Bank of Baroda	1909
4	Bank of India	1906
5	Bank of Maharashtra	1935
6	Canara Bank	1906
7	Central Bank of India	1911
8	Corporation Bank	1906
9	Dena Bank	1938
10	Indian Bank	1907

11	Indian Overseas Bank	1970
12	Oriental Bank of Commerce	1943
13	Punjab & Sind Bank	1908
14	Punjab National Bank	1895
15	Syndicate Bank	1925
16	UCO Bank	1943
17	Union Bank of India	1919
18	United Bank of India	1950
19	Vijaya Bank	1931
II	**State Bank of India (SBI)**	1955
III	**ASSOCIATES OF SBI**	
1	State Bank of Bikaner & Jaipur	1944
2	State Bank of Hyderabad	1941
3	State Bank of Mysore	1913
4	State Bank of Patiala	1917
5	State Bank of Travancore	1945

Source: RBI website

Period of the study
The period of study covers ten years from 2007-08 to 2016-17.

Statistical tools used
In order to identify the prominent factors responsible for the liquidity of banks, to measure the extent of influence of the independent variables on dependent variables the following tools are applied.
- Mean
- Co-efficient of variation
- CAGR
- Ratio Analysis
- ANOVA

Liquidity
Liquidity is very important for any organization dealing in money. For bank, liquidity is a crucial aspect which represents its ability to meets its financial obligations. Liquidity ratios are calculated to measure the short term financial soundness of the bank. The ratio assesses the capacity of the bank to repay its short term liability. The following ratios are used to calculate to know the liquidity position of select banks.

Liquid Assets to Demand Deposits
This ratio measures the ability of a bank to meet the demand from demand deposits in a particular year. It is arrived at by dividing liquid assets by total demand deposits. Liquid assets include cash in hand, balance with RBI, balance with other banks (both in India and abroad), and money at call and short notice.

Liquid Assets to Total Deposits
This ratio measures the liquidity available to the depositors of a bank. Liquid assets include cash in hand, balance with RBI, balance with other banks (both in India and abroad), and money at call and short notice. The ratio is arrived by dividing liquid assets by total assets.

Liquid Assets to Total Assets
Liquid assets include cash in hand, balance with RBI, balance with other banks (both in India and abroad), and money at call and short notice. The ratio arrived by dividing liquid assets by total assets.

Government Securities to Total Assets
This ratio measures the proportion of risk free liquid assets invested in government securities as a percentage of the assets held by a bank and is arrived at by dividing investment in government securities by total assets.

4. Result and Discussion

The data analysis is related to different liquidity ratios which have been selected for the measurement of liquidity position of public sector banks in India. Two way ANOVA has been used to measure the liquidity performance.

Ratio of Liquid Assets to Demand Deposits

Table 1: Ratio of Liquid Assets to Demand Deposits

Year	Nationalised Banks	SBI	SBI Associates
Mar 08	128.62	68.75	131.54
Mar 09	134.96	94.27	113.86
Mar 10	125.72	70.31	129.02
Mar 11	133.2	93.66	139.39
Mar 12	134.02	98.69	154.12
Mar 13	132.61	101.9	126.09
Mar 14	155.63	117.06	128.46
Mar 15	142.88	124.23	135.07
Mar 16	164.69	119.78	125
Mar 17	218.4	112.82	282.43
AVG	147.07	100.14	146.50
SD	27.89	19.35	48.89
CV	18.97	19.32	33.37
CAGR	5%	5%	8%

Source: Annual Reports of Select Banks

The high liquid ratio indicates that the bank is more affluent. On this front, the above table indicates that the ratio of liquid assets to demand deposits of nationalized bank had increased from 128.62 percent in 2007-08 to 218.4 percent in 2016-2017. The ratio of liquid assets to demand deposits of SBI had increased from 68.75 percent in 2007-08 to 112.82 percent in 2016-2017. The ratio of liquid assets to demand deposits of SBI Associates had decreased from 131.54 percent in 2007-08 to 282.43 percent in 2016-2017. SBI Associates had a highest compound annual growth rate of 8 percent. The fluctuation of this ratio is caused by the financial policy of the government.

The ratio of liquid assets to demand deposits can also compare and tested using the followinghypothesis as stated below:

H0: There is no significant difference between the ratio of liquid assets to demand deposits of Nationalized, SBI and SBI Associates.
H$_1$: There is significant difference between the ratio of liquid assets to demand deposits of Nationalized, SBI and SBI Associates.

Table 2: Two Way ANOVA of Liquid Assets to Demand Deposits

Source Of Variation	SS	DF	MS	F-Ratio	5% F-Limit
Between Banks	14502.65	2	7251.33	11.67	3.55
Between Years	20707.45	9	2300.83	3.70	2.45
Residual Error	11181.60	18	621.20		
Total	46391.70	29			

The result of Table 2 indicates that there exists a significant difference between means of liquid assets to demand deposits of public sector banks. These findings support H_1 which explains that there is a significant difference between the means of all(Nationalized banks, SBI and SBI Associates).

Ratio of Liquid Assets to Total Assets

Table 3: Ratio of Liquid Assets to Total Assets

Year	Nationalised Banks	SBI	SBI Associates
Mar 08	10.5	9.34	9.29
Mar 09	9.7	10.82	7.17
Mar 10	9.23	8.18	7.5
Mar 11	8.68	10.03	7.86
Mar 12	7.67	7.27	6.73
Mar 13	7.51	7.32	5.35
Mar 14	8.08	7.39	5.84
Mar 15	8.19	7.54	5.62
Mar 16	8.75	7.4	5.8
Mar 17	11.73	6.35	15.92
AVG	**9.004**	**8.164**	**7.708**
SD	**1.33**	**1.43**	**3.13**
CV	**14.76**	**17.46**	**40.64**
CAGR	**1%**	**-4%**	**6%**

Source: Annual Reports of Select Banks

As noticed from the table 3, the ratio of liquid assets to total assets on nationalized banks had increased from 10.5 percent in 2007-08 to 11.73 percent in 2016-17.similarly the SBI Associates had also increased from 9.29 percent in 20017-08 to 15.92 percent in 2016-17. But in SBI the ratio of liquid assets to total assets had decreased from 9.34 percent in2007-08 to 6.35. All the banks had shown a fluctuating trend, having an average of 9.004 percent, 8.164 and 7.70 percent during the period of study.

H0: There is no significant difference between the ratio of liquid assets to total assets of Nationalized, SBI and SBI Associates.

H_1: There is significant difference between the ratio of liquid assets to total assets of Nationalized, SBI and SBI Associates

Table 4: Two Way ANOVA of Liquid Assets to Total Assets

Source of Variation	SS	DF	MS	F-Ratio	5% F-Limit
Between Banks	8.64	2	4.32	1.23	3.55
Between Years	59.39	9	6.60	1.88	2.45
Residual Error	63.11	18	3.51		
Total	131.14	29			

The results shown in table 4 indicate that the F-ratio is insignificant at 5% level of significance. Therefore, there is no difference between the performance means of liquid assets to total assets of Nationalized banks, SBI and SBI Associates. Hence the H_0 is accepted.

Liquid Assets to Total Deposits

Table 5: Ratio of Liquid Assets to Total Deposits

Year	Nationalised Banks	SBI	SBI Associates
Mar 08	12.26	11.93	12.18
Mar 09	11.19	12.55	10.47
Mar 10	10.66	14.07	9.46
Mar 11	10.1	10.72	10.01
Mar 12	8.99	13.16	9.06
Mar 13	8.79	9.31	6.95
Mar 14	9.45	9.55	8.52
Mar 15	9.56	9.51	7.51
Mar 16	10.22	9.81	7.77
Mar 17	13.58	9.68	18.2
AVG	10.48	11.03	10.01
SD	1.51	1.76	3.27
CV	14.40	15.93	32.63
CAGR	1%	-2%	4%

Source: Annual Reports of Select Banks

As revealed from the table 5, the ratio of liquid assets to total deposits of nationalized banks had increased from 12.26 percent in 2007-2008 to13.58 percent in 2016-17. In the case of SBI and SBI associates shown a fluctuating trend and its average stood at 11.03 percent and 10.01 percent during the study period. The SBI associates had a highest compound annual growth of 4 percent during the study period. But in the case of SBI had shown a negative compound annual growth rate of -2 percent.

H0: There is no significant difference between the ratio of liquid assets to total deposits of Nationalized, SBI and SBI Associates.

H_1: There is significant difference between the ratio of liquid assets to total deposits of Nationalized, SBI and SBI Associates.

Table 6: Two Way ANOVA of Liquid Assets to Total Deposits

Source of Variation	SS	DF	MS	F-Ratio	5% F-Limit
Between Banks	42.28	2	21.14	12.69	3.55
Between Years	64.16	9	7.13	4.28	2.45
Residual Error	29.99	18	1.67		
Total	136.42	29			

The results shown in table 6 indicate that the F-ratio is insignificant at 5%level of significance. Therefore, there is no difference between the performance means of liquid assets to total deposits of Nationalized banks, SBI and SBI Associates.

Government Securities to Total Assets

Table 7: Ratio of Government Securities to Total Assets

Year	Nationalised Banks	SBI	SBI Associates
Mar 08	22.52	19.54	23.34
Mar 09	22.34	23.52	23.62
Mar 10	23.37	21.70	23.19
Mar 11	21.35	19.02	21.33
Mar 12	21.87	19.27	21.74
Mar 13	21.85	17.35	21.76
Mar 14	21.81	17.38	21.06
Mar 15	21.55	18.69	20.49
Mar 16	20.52	16.37	17.96
Mar 17	21.04	21.53	26.20
AVG	**21.82**	**19.44**	**22.07**

SD	0.80	2.24	2.20
CV	3.7	11.5	10.0
CAGR	-1%	1%	1%

Source: Annual Reports of Select Banks

Table 7 shows that the ratio of government securities to total assets of nationalized banks had decreased from 22.52 percent in 2007-08 to 21.04 percent in 2016-17. In the case of SBI, it increased from 19.54 percent in 2007-08 to 21.53 percent in 2016-17. The ratio of government securities to total assets of SBI associates had increased from23.34 percent in 2007-08 to 26.20 percent in 2016-17. SBI and SBI Associates had same compound annual growth rate at 1 percent.

H0: There is no significant difference between the ratio of Government securities to Total Assets of Nationalized, SBI and SBI Associates.

H$_1$: There is significant difference between the ratio of Government securities toTotal Assets of Nationalized, SBI and SBI Associates.

Table 8: Two Way ANOVA of Government Securities To Total Assets

Source of Variation	SS	DF	MS	F-Ratio	5% F-Limit
Between Banks	5.17	2	2.59	0.70	3.55
Between Years	77.79	9	8.64	2.34	2.45
Residual Error	66.54	18	3.70		
Total	149.50	29			

The results of table 8 indicate that there exists a significant difference between the means of government securities to total assets of select banks. These findings support H$_1$ which explains that there is a significant difference between the means of banks.

5. Conclusion

The forgoing analysis the compound annual growth rate (CAGR) of liquid assets to demand deposits in SBI Associates was higher 8% than the Nationlised Banks and SBI bank. It shows that SBI Associates have the ability to meet the demand from demand deposits. The proportion of liquid assets to total assets was higher in case of nationalized banks and SBI Associates as compared to SBI, which shows that the overall liquidity position of nationalized banks and SBI Associates are comparatively better than SBI. The ratio of government securities to total assets was relatively higher in SBI Associates 22.07 % as compared to SBI and nationalized banks. it shows that SBI Associates highly invest in risk free securities than the nationalized banks and SBI. The study can be concluded that the banks with least level of liquidity ratios needed to improve their performance to come up to the desired standards.

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