Financial Soundness of Public and Private Sector Banks in India : A Bankometer Analysis

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Abstract

Long term financial position of the banks is very important parameter which is directly concerned with the profitability of the banks. It is the long-term financial position of the bank on the basis of which different decision can be taken by different parties related to the bank. With the help of long term financial position, it can be ascertained that whether the bank is able to pay its obligation in time or not. So, the present study has been conducted to analyze the financial soundness of the "Public Sector Banks" and "Private Sector Banks" in India using "Bankometer Model" considering the time period of five years (2014-2018). The present research is analytical in nature and secondary data have been collected and analyzed for the fulfilling the objectives of the study. In the results of the study, all the selected public and private sector banks have been found as super sound banks as the calculated solvency scores are higher than 70 percent. It indicates that all the selected banks are good in terms of financial soundness and are able to pay their obligations in time. It has also been found that Indian Bank is the top performer bank in terms of financial soundness throughout the study period.

Key Words

Financial Soundness, Bankometer Model, Solvency Score, Public Sector Banks, Private Sector Banks, Ratio Analysis.

INTRODUCTION

Economic development of a country depends largely on the financial sector of the country and the financial sector is normally denominated by the

banking sector. The banking sector of country works in various forms of finance, which include cash and credit, as banks are those institutional bodies which accept the surplus money available with the public and grant credit in the form of loan to the entities which are in need of money. In the process of providing service to the society, banks have to face different types of problems. Indian banking sector is facing the biggest problem of non-performing assets. The increased level of non-performing assets reduces the level of profitability and the decreased level of profitability may create problems related to the liquidity and solvency for the banks. Further, the Indian banking industry has faced many scams that resulted in less availability of funds with the banks. It can be said here that the problem of liquidity and solvency for Indian banking industry is a multidimensional problem. Considering all these elements, an attempt has been made in the present study to appraise the solvency position of selected Public sector banks and Private sector banks of India with the help of Bankometer Analysis Model.

REVIEW OF LITERATURE

Chauhan and Kumar (2019) investigated the soundness of Indian commercial banks with the help of Bankometer Model considering 62 banks for the period 2009-2018. In the findings of the study, foreign banks along with new private banks were found to be the best performer banks in terms of solvency computed according to the framework of Bankometer Model. The public sector banks were found at a relatively low performance position among the group of selected commercial banks in India. Further, old private sector banks were found in the category of moderate sound banks.

Abirami (2018) analyzed the soundness of selected public sector and private sector banks in India in terms of solvency considering a period of ten years starting from the year 2005-06 to 2014-15 using secondary data and with the help of Bankometer Analysis Test. In the findings, it was observed that all the selected public sector banks in the study are super sound in their financial position. Further, the highest performers in respect of S-scores computed using Bankometer in case of private sector banks and public sector banks were found as KMB and IDBI respectively. When the performance of public and private sector banks was compared, private sector banks were found at a better place than public sector banks during the period of study.

Onyema *et al.,* (2018) assessed the financial soundness of ten selected commercial banks in Nigeria with the application of Bankometer Model and Friedman Rank Test considering the study period of fifteen years (2000-2015). In the results of the study, out of total ten selected banks only two banks were

found in the category of super sound banks as the calculated solvency scores were higher than 70 percent which is the limit provided by Bankometer Model for solvent banks and the rest eight banks were found having the solvency score less than 50 percent. Banks having solvency score less than 50 percent are considered as banks with financial difficulties in terms of solvency. It was suggested that banks should maintain consistent solvency if they want to ensure sound financial system.

Laila and Widihadnanto (2017) analyzed the Financial Distress prediction of Islamic and Conventional Banks using Bankometer Model. Further, the Bankometer scores of four Islamic banks and 10 conventional banks were observed and compared considering the period of 2011-2014. For the study, secondary data were collected from the Annual Reports of the banks. In the findings of the study, both Islamic and conventional banks were found having a superior level of resilience against financial distress. Moreover, no significant difference was found between the financial distress prediction of Islamic banks and conventional banks.

Landjang and Tumiwa (2017) evaluated the Financial Soundness of the selected commercial banks in Indonesia with the help of Bankometer Analysis. In the study total 19 listed private-owned banks in Indonesia were studied with the help of secondary data sources which were publicly available on the websites of the banks.The period of study was three years (2014-2016). The findings of the research observed that the 19 banks were in the category of super sound bank during the study period. The top performing three banks were found as Bank of Tokyo Mitsubishi at the top which was followed by Citibank and BTPN.

Rahman (2017) examined the Financial Soundness of 24 Private Commercial Banks working in Bangladesh with the help of Bankometer Analysis covering a period of 2010 to 2015. It was found that all the banks have maintained the soundness, as the solvency scores of all the banks were found to be much higher than the limit of 70% throughout the period of study. It was concluded that all the selected banks have been financially sound during the period of study. It was suggested that if the banks want to ensure sound financial system in the long-term, banks will have to maintain the consistent level of solvency.

Masud and Haq (2016) measured the Financial Soundness of selected Private Commercial Banks of Bangladesh for the period 2006 to 2014 with the help of Bankometer Model. It was observed that there is upward trend in different financial indicators related to the banks during the period of study. Moreover, it was found that the bank having higher Deposits, Loans & Advances,

Investments, Branches and Employees may not be considered as the banks having better profitability performance. It was concluded that private commercial banks were found contributing to a large extent in the economic growth and stability of the country.

Shamanth and Rajgopal (2016) assessed the financial position of selected Private and Foreign Banks in India using Bankometer Model. The study was based on secondary data which were collected from financial statements and Annual Reports published by Reserve Bank of India. The results of the study expressed the selected banks as liquid having a strong capital base. Further, the selected banks were found able in managing their debt well and they were found to be good in terms of profitability. However, the asset quality of the selected banks was lacking as per the results. It was suggested that the Bankometer Model may be used as an Early Warning System for assessing financial soundness of a bank.

Roman and Sargu (2013) comparatively evaluated the Financial soundness of the 15 commercial banks in Romania which were selected on the basis of banking assets size. The study was based on secondary data and the data were analyzed with the help of CAMELS Model. The results of the study high-lighted that the strengths and the weaknesses of the analyzed banks, emphasizing the need to further strengthen the apprehensions of the decision-makers from banks to improve and increase their soundness.

OBJECTIVES OF THE STUDY

The present research is based on the following main objectives :
1. To analyze the Financial Soundness of selected public and private sector banks.
2. To compare the status of Financial Soundness of selected public and private sector

RESEARCH METHODOLOGY

The nature of present research is analytical and it is based on secondary data which have been collected from the reports available on the website of Reserve Bank of India. The collected data have been complied & tabulated and the compiled data have been analyzed with the help of Bankometer Model. The period covered under the present study is 5 years i.e. from 2014 to 2018. In the present study, 21 Public Sector Banks and 19 Private Sector Banks working in the year 2014 have been considered. Following the

recommendations of International Monetary Fund (2000), Shar, Shah & Jamali (2010) and Kattle (2014), the following procedure of Bankometer is used to compute the solvency score :

Parameters of Bankometer

The main parameters used in the Bankometer Model are as under :
a. Capital to Assets Ratio ≥ 04%
b. Equity to Assets Ratio ≥ 02%
c. Capital Adequacy Ratio 40% ≤ CAR ≥ 8%
d. Non-performing Loans to Loans Ratio ≤ 15%
e. Cost to Income Ratio ≤ 40%
f. Loans to Assets Ratio ≤ 65%

Bankometer Equation

The following equation is used to evaluate the solvency of banks under Bankometer Model :

$$S = 1.5*CA + 1.2*EA + 3.5*CAR + 0.6*NPL + 0.3*CI + 0.4*LA$$

Where :
S = Solvency Score
CA = Capital to Assets Ratio
EA = Equity to Assets Ratio
CAR = Capital Adequacy Ratio
NPL = Non-Performing Loans to Loans Ratio
CI = Cost to Income Ratio
LA = Loans to Assets Ratio

Criteria for Evaluating the Results

The banks with solvency score, which is greater than 70, are solvent banks and termed as Super Sound Banks. On the other hand, banks having the value of solvency score less than 50 are termed as Insolvent and the banks having solvency score between 50 and 70 are in moderate position and those banks are considered into Gray Zone (Shar, Shah and Jamali, 2010). The criteria are also summarized in the following Table :

Range of Solvency Score	Status of the Bank
S-Score > 70%	Super Sound Bank
S-Score < 50%	Insolvent Bank
50% < S-Score > 70%	Gray Zone

FINDINGS AND INTERPRETATION

The following discussion is related to the findings and interpretation of present study :

Table 1

Solvency Scores of Public Sector Banks for the Year 2014

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Allahabad Bank	9.96	0.25	10.46	4.15	16.53	62.61	80.27	18
Andhra Bank	10.78	0.35	10.09	3.11	14.78	64.33	82.40	13
Bank of Baroda	12.28	0.07	10.85	1.52	16.44	60.20	86.02	5
Bank of India	9.97	0.11	10.33	2.00	15.87	64.68	79.29	19
Bank of Maharashtra	10.79	1.05	9.76	2.03	18.65	65.23	83.96	10
Canara Bank	10.63	0.09	11.95	1.98	13.99	61.20	81.55	15
Central Bank of India	9.87	1.03	9.88	3.75	19.65	61.25	80.59	17
Corporation Bank	11.65	0.08	9.01	2.32	12.20	61.74	81.44	16
Dena Bank	11.14	0.43	11.01	2.35	15.12	62.11	83.64	11
IDBI Bank Limited	11.68	0.49	13.88	2.48	11.22	60.09	87.16	4
Indian Bank	12.64	0.25	14.57	2.26	17.04	65.27	94.67	1
Indian Overseas Bank	10.78	0.45	11.32	3.20	15.08	63.98	84.02	9
Oriental Bank of Comm.	11.01	0.14	12.06	2.82	13.91	63.13	84.33	8
Punjab & Sind Bank	11.04	0.50	10.10	3.35	14.85	60.56	82.21	14
Punjab National Bank	11.52	0.07	12.98	2.85	19.54	63.46	88.94	3
State Bank of India Group	11.37	0.06	12.65	2.95	21.86	67.48	90.38	2
Syndicate Bank	11.41	0.25	9.16	1.56	16.55	69.05	84.82	7
UCO Bank	12.68	0.42	8.97	2.38	12.48	62.55	85.97	6
Union Bank of India	10.80	0.21	10.23	2.33	17.04	64.76	82.81	12
United Bank of India	9.81	1.08	7.36	7.18	14.47	52.57	74.47	21
Vijaya Bank	10.56	0.63	7.95	1.55	14.80	59.34	76.54	20

Source : Compiled from Secondary Data (Reserve Bank of India)
*Ratios are in Percentage.

The above Table is related to the financial soundness of selected public sector banks for the year 2014 and as per the data of the Table, all the selected public sector have been found super sound as the calculated solvency scores

are higher than 70 percent. It means the financial soundness of selected public sector banks for the year 2014 is good. The top performing bank among the group has been found as Indian Bank which is followed by State Bank of India Group. The least solvency score has been obtained by United Bank of India.

Table 2
Solvency Scores of Public Sector Banks for the Year 2015

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Allahabad Bank	10.45	0.25	10.88	3.99	17.11	66.00	83.94	11
Andhra Bank	10.63	0.33	10.54	2.93	15.33	68.02	83.91	12
Bank of Baroda	12.61	0.06	11.08	1.89	16.20	59.87	87.47	5
Bank of India	10.73	0.11	10.06	3.36	16.97	64.98	82.88	14
Bank of Maharashtra	11.94	0.73	10.32	4.19	18.48	67.52	90.33	3
Canara Bank	10.56	0.09	11.54	2.65	15.04	60.23	81.13	16
Central Bank of India	10.90	0.53	10.66	3.61	19.72	60.42	83.99	10
Corporation Bank	11.09	0.07	9.20	3.08	12.00	64.19	81.10	17
Dena Bank	10.93	0.43	11.02	3.82	16.01	60.76	83.53	13
IDBI Bank Limited	11.76	0.45	13.21	2.88	12.52	58.51	86.57	6
Indian Bank	12.86	0.25	15.41	2.50	16.33	65.27	96.38	1
Indian Overseas Bank	10.11	0.43	10.52	5.68	16.11	60.13	80.95	18
Oriental Bank of Comm.	11.41	0.13	11.83	3.34	14.76	63.02	85.96	7
Punjab & Sind Bank	11.24	0.41	11.04	3.55	14.78	65.34	85.90	8
Punjab National Bank	12.21	0.06	12.89	4.06	20.10	63.07	91.99	2
State Bank of India Group	11.53	0.05	12.33	2.50	20.93	64.22	88.72	4
Syndicate Bank	10.54	0.22	8.40	1.90	15.27	66.87	79.77	20
UCO Bank	12.17	0.44	9.77	4.30	12.43	59.92	85.25	9
Union Bank of India	10.22	0.17	10.19	2.71	17.25	66.99	81.85	15
United Bank of India	10.57	0.68	8.79	6.22	15.17	54.27	78.56	21
Vijaya Bank	11.43	0.60	8.04	1.92	14.54	60.80	80.39	19

Source : Compiled from Secondary Data (Reserve Bank of India)
*Ratios are in Percentage.

Solvency status of public sector banks for the year 2015 has been shown in the above Table. As per the results of the study, all the selected

public sector banks have been found as super sound banks as the solvency scores are higher than 70 percent. It is an indication of good financial position for selected public sector banks. The best performing bank in terms of solvency has been found as Indian Bank and the second top performing bank is Punjab National Bank as the solvency score of these banks is the highest among the group of public sector banks. United Bank of India has been depicted as the bottom performing bank which is followed by Syndicate Bank.

Table 3
Solvency Scores of Public Sector Banks for the Year 2016

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Allahabad Bank	11.02	0.26	11.47	6.76	17.67	63.53	87.49	10
Andhra Bank	11.58	0.34	10.66	4.61	15.24	65.41	87.33	11
Bank of Baroda	13.18	0.07	11.91	5.06	18.19	57.16	91.88	2
Bank of India	12.01	0.13	10.04	7.79	20.55	58.89	88.68	8
Bank of Maharashtra	11.20	0.73	10.19	6.35	18.14	66.83	88.50	9
Canara Bank	11.08	0.10	11.33	6.42	15.32	58.72	84.46	16
Central Bank of India	10.40	0.55	11.02	7.36	23.94	58.93	85.63	13
Corporation Bank	10.56	0.09	9.59	6.53	13.62	59.75	80.50	20
Dena Bank	11.00	0.50	10.20	6.35	19.96	61.70	85.97	12
IDBI Bank Limited	11.67	0.55	14.22	6.78	13.13	57.51	89.74	3
Indian Bank	13.20	0.24	15.73	4.20	17.73	63.35	98.61	1
Indian Overseas Bank	9.67	0.66	10.76	11.89	19.30	58.61	84.11	17
Oriental Bank of Comm.	11.76	0.13	12.33	6.70	15.77	62.09	89.74	4
Punjab & Sind Bank	10.91	0.39	11.25	4.62	15.01	62.31	84.47	15
Punjab National Bank	11.28	0.06	11.42	8.61	18.67	61.78	88.75	7
State Bank of India Group	11.68	0.06	12.14	3.48	20.97	62.44	88.89	6
Syndicate Bank	11.16	0.23	7.78	4.48	20.39	65.39	83.70	18
UCO Bank	9.63	0.44	9.79	9.09	14.09	51.41	76.36	21
Union Bank of India	10.56	0.17	11.14	5.25	17.59	66.06	85.44	14
United Bank of India	10.08	0.65	8.37	9.04	26.07	52.58	80.58	19
Vijaya Bank	12.58	0.64	9.85	4.80	16.10	61.20	89.00	5

Source : Compiled from Secondary Data (Reserve Bank of India)
*Ratios are in Percentage.

Table 3 is related to the performance of public sector banks in terms of financial soundness for the year 2016. It can be seen from the results of the Table that all the public sector banks have been found securing solvency score in excess of 70 percent. So, these banks may be considered in the category of super sound banks. It may be said that all the selected public sector banks have sound financial status. In continuation of the year 2015, Indian Bank again has been found as the bank having the highest solvency score among the group in

Table 4

Solvency Scores of Public Sector Banks for the Year 2017

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Allahabad Bank	11.45	0.31	11.75	8.92	20.02	63.60	91.44	3
Andhra Bank	12.38	0.31	9.88	7.57	16.98	61.34	89.82	6
Bank of Baroda	12.24	0.07	11.53	4.72	18.99	55.16	87.37	16
Bank of India	12.14	0.17	9.66	6.90	19.25	58.51	87.65	15
Bank of Maharashtra	11.18	0.73	8.53	11.76	21.04	59.95	87.82	14
Canara Bank	12.86	0.10	11.44	6.33	17.39	58.61	91.36	4
Central Bank of India	10.94	0.57	9.79	10.20	23.10	41.81	80.67	21
Corporation Bank	11.32	0.09	10.16	8.33	13.75	56.62	83.73	18
Dena Bank	11.39	0.61	11.26	10.66	19.85	56.03	89.05	9
IDBI Bank Limited	10.70	0.57	11.90	13.21	16.17	52.73	86.45	17
Indian Bank	13.64	0.22	15.51	4.39	18.39	58.52	98.24	1
Indian Overseas Bank	10.49	0.99	10.13	13.99	21.27	56.83	87.87	11
Oriental Bank of Comm.	11.64	0.14	11.02	8.96	16.54	62.32	89.44	8
Punjab & Sind Bank	11.05	0.41	12.30	7.51	17.09	60.36	87.83	13
Punjab National Bank	11.66	0.06	11.63	7.81	16.68	58.24	87.84	12
State Bank of India Group	11.60	0.12	13.13	11.61	21.85	56.22	92.56	2
Syndicate Bank	12.03	0.30	9.18	5.21	20.79	66.76	89.65	7
UCO Bank	10.93	0.67	10.35	8.94	16.30	51.75	82.64	20
Union Bank of India	11.79	0.15	10.44	6.57	17.11	63.28	88.41	10
United Bank of India	11.14	0.99	9.40	10.02	22.05	46.89	83.14	19
Vijaya Bank	12.73	0.64	9.88	4.36	19.50	61.05	90.27	5

Source : Compiled from Secondary Data (Reserve Bank of India)

*Ratios are in Percentage.

the year 2016. This top performance has been followed by Bank of Baroda. The bottom performing bank among the group is UCO Bank which is followed by Corporation Bank. It means that Indian Bank is at the top in terms of solvency and contrarily, UCO Bank is at the bottom.

The above Table 4 shows the performance of selected public sector banks in terms of solvency for the year 2017. According to the results, all the public sector banks may be considered as the super sound banks as the calculated solvency scores exceed 70 percent. It means that all the selected public sector banks are able to pay their long-term financial obligations in time. In terms of bank-wise results, Indian Bank has been depicted as the best performer among the group of selected public sector banks. This performance has been followed by State Bank of India Group. On the other hand, the lowest performing bank has been found as Central Bank of India followed by UCO Bank. In nutshell, Indian Bank is the top performing bank and Central Bank of India is the bottom performing bank in terms of long-term financial soundness for the year 2017.

Table 5
Solvency Scores of Public Sector Banks for the Year 2017

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Allahabad Bank	8.69	0.33	7.79	5.73	20.93	60.17	74.05	21
Andhra Bank	11.00	0.50	8.44	8.04	16.44	61.55	83.75	15
Bank of Baroda	12.13	0.07	11.98	8.48	20.22	59.37	91.84	7
Bank of India	12.94	0.29	11.37	5.49	20.78	56.00	91.30	8
Bank of Maharashtra	11.01	1.66	11.06	8.28	21.46	54.88	87.66	12
Canara Bank	13.22	0.12	11.42	11.24	19.83	61.88	97.60	3
Central Bank of India	9.04	0.80	10.22	7.48	24.03	47.99	76.00	20
Corporation Bank	9.23	0.15	9.63	11.10	16.05	54.02	77.17	19
Dena Bank	11.09	1.87	13.36	11.74	24.45	54.26	93.73	6
IDBI Bank Limited	10.41	0.88	11.23	11.95	15.80	49.02	82.75	16
Indian Bank	12.55	0.19	14.41	16.69	18.79	61.95	101.94	1
Indian Overseas Bank	9.26	1.97	8.73	3.81	25.78	53.43	77.24	18

Contd.

Contd. Table 5

Oriental Bank of Comm.	10.50	0.27	9.83	15.33	17.79	58.44	86.87	13
Punjab & Sind Bank	11.25	0.50	10.37	10.48	19.60	58.52	88.14	11
Punjab National Bank	9.20	0.07	10.65	6.93	23.75	56.64	79.03	17
State Bank of India	12.60	0.03	12.66	11.24	22.61	56.01	95.26	4
Syndicate Bank	12.24	0.44	8.79	6.28	22.35	65.03	90.53	9
UCO Bank	10.94	1.07	12.78	13.10	19.23	49.74	88.75	10
Union Bank of India	11.50	0.24	10.06	8.42	17.90	59.24	86.80	14
United Bank of India	12.62	2.07	9.90	16.49	25.42	43.17	93.94	5
Vijaya Bank	13.90	0.73	11.23	4.32	19.77	65.40	97.91	2

Source : Compiled from Secondary Data (Reserve Bank of India)
*Ratios are in Percentage.

Financial soundness of selected public sector banks for the year 2018 has been analyzed in the above Table. As per results of the study, all the selected public sector banks have been found securing the solvency score in excess of 70 percent. On the basis of this score, these banks may be considered as super sound banks and the selected banks are able to pay their long-term obligations on due dates. The highest solvency score has been observed in case of Indian Bank and this top performance has been followed by Vijaya Bank. Contrary to this, the solvency score is the minimum in case of Allahabad Bank among the group of selected public sector banks. This bottom performance has been followed by Central Bank of India.

Table 6
Solvency Scores of Private Sector Banks for the Year 2014

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Axis Bank	16.07	0.12	19.82	0.44	20.77	60.03	110.72	4
Catholic Syrian Bank Ltd.	11.00	0.27	9.78	2.22	24.75	56.85	82.15	18
City Union Bank Ltd.	15.01	0.22	15.99	1.23	16.22	64.40	103.41	10
DCB Bank Ltd.	13.71	1.94	15.92	0.91	25.19	62.99	103.29	11
Dhanlaxmi Bank	8.67	0.86	9.17	3.80	25.45	54.03	74.16	19
Federal Bank	15.14	0.23	18.41	0.74	18.88	58.23	104.82	9
HDFC Bank	16.07	0.10	17.59	0.27	24.55	61.64	109.68	5
ICICI Bank	17.70	0.19	24.43	0.97	18.88	56.96	120.59	2
IndusInd Bank	13.83	0.60	20.18	0.33	21.54	63.32	105.51	8
ING VYSYA Bank	16.76	0.31	23.10	0.28	24.58	59.31	118.11	3
Jammu & Kashmir Bank Ltd.	12.69	0.06	14.50	0.22	16.42	59.00	90.56	15
Karnataka Bank Ltd.	13.20	0.40	12.58	1.91	18.63	60.27	92.74	12
Karur Vysya Bank	12.59	0.21	12.70	0.41	17.79	65.95	91.58	13
Kotak Mahindra Bank Ltd.	18.83	0.44	27.61	1.08	25.01	60.54	132.06	1
Lakshmi Vilas Bank	10.90	0.47	9.73	3.44	17.40	62.41	82.78	17
RBL Bank Ltd.	14.64	1.49	19.22	0.31	26.29	54.04	106.24	7
South Indian Bank	12.42	0.24	12.01	0.78	16.40	65.89	90.00	16
Tamilnad Mercantile Bank Ltd.	15.59	0.00	17.19	1.22	16.74	64.94	106.93	6
Yes Bank Ltd.	14.40	0.33	12.73	0.05	14.95	51.03	91.11	14

Source : Compiled from Secondary Data (Reserve Bank of India)
*Ratios are in Percentage.

Table 6 is concerned with the analysis of financial soundness of selected private sector banks for the year 2014. It is clear from the results of the study that all the selected private sector banks have been found in the category of super sound banks as the calculated solvency scores with the help of Bankometer are higher than 70 percent. It is an indication of the higher level of ability of paying long-term obligations in time for private sector banks. As per

bank wise discussion, Kotak Mahindra Bank Ltd. has been found securing top position as the solvency score is the highest in case of Kotak Mahindra Bank Ltd. in comparison to the other selected private sector banks. The second top performing bank is ICICI Bank. On the other hand, the bottom performing bank among the selected private sector banks is Dhanlaxmi Bank which is followed by Catholic Syrian Bank Ltd.

Table 7
Solvency Scores of Private Sector Banks for the Year 2015

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Axis Bank	15.09	0.10	19.24	0.46	20.99	60.85	106.97	8
Catholic Syrian Bank Ltd.	11.00	0.38	10.89	3.85	25.91	60.09	86.26	18
City Union Bank Ltd.	16.52	0.21	19.13	1.30	16.37	64.46	112.57	5
DCB Bank Ltd.	14.95	1.75	17.95	1.01	24.97	64.87	110.53	6
Dhanlaxmi Bank	9.59	1.24	8.85	3.29	26.17	53.44	77.24	19
Federal Bank	15.46	0.21	18.47	0.73	19.66	61.90	107.68	7
HDFC Bank	16.79	0.08	20.92	0.25	24.34	61.90	116.20	3
ICICI Bank	17.02	0.18	24.72	1.61	18.76	59.98	120.08	2
IndusInd Bank	12.09	0.47	18.57	0.31	23.45	61.53	97.14	12
ING VYSYA Bank	15.30	0.29	22.98	1.11	24.46	61.03	113.97	4
Jammu & Kashmir Bank Ltd.	12.57	0.06	16.03	2.77	18.41	58.72	94.00	14
Karnataka Bank Ltd.	12.41	0.36	12.71	1.98	17.34	61.12	90.07	15
Karur Vysya Bank	14.62	0.23	15.75	0.78	18.32	67.93	103.55	9
Kotak Mahindra Bank Ltd.	17.17	0.36	26.32	0.92	27.70	62.41	126.05	1
Lakshmi Vilas Bank	11.34	0.73	11.87	1.85	17.70	66.19	87.92	16
RBL Bank Ltd.	13.13	1.08	15.38	0.27	25.45	53.31	95.15	13
South Indian Bank	12.01	0.23	11.92	0.96	16.97	63.25	87.65	17
Tamilnad Mercantile Bank Ltd.	13.89	0.00	17.44	0.67	18.16	65.00	101.39	11
Yes Bank Ltd.	15.60	0.31	16.85	0.12	16.78	55.48	102.58	10

Source : Compiled from Secondary Data (Reserve Bank of India)
*Ratios are in Percentage.

The above Table shows the performance of selected private sector banks in terms of solvency for the year 2015. According to the results, all the selected private sector banks may be considered as the super sound banks as the calculated solvency scores exceed 70 percent. It means that all the selected private sector banks are able to pay their long-term financial obligations whenever they due. In terms of bank-wise results, Kotak Mahindra Bank Ltd. again in this year has been depicted as best performer among the group of selected private sector banks. This top performance has been followed by ICICI Bank. On the other hand, the lowest performing bank has been found as Dhanlaxmi Bank which is followed by Catholic Syrian Bank Ltd. In nutshell, Kotak Mahindra Bank Ltd. is the top performing bank and Dhanlaxmi Bank is the bottom performing bank in terms of long-term financial soundness for the year 2015.

Table 8
Solvency Solvency Scores of Private Sector Banks for the Year 2016

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Axis Bank Ltd.	15.29	0.09	19.61	0.74	20.06	62.76	108.74	5
Catholic Syrian Bank Ltd.	10.55	0.46	10.95	4.40	27.21	50.17	81.62	18
City Union Bank Ltd.	15.58	0.19	19.00	1.53	16.63	66.21	110.01	4
DCB Bank Ltd.	14.11	1.49	17.26	0.75	25.58	67.59	107.49	6
Federal Bank Ltd.	7.51	0.36	16.75	1.64	22.11	61.42	79.11	19
HDFC Bank Ltd.	13.93	0.07	19.55	0.28	23.92	62.72	104.75	11
ICICI Bank Ltd.	15.53	0.16	24.74	2.98	18.64	60.40	115.82	3
IDFC Bank Ltd.	16.64	4.08	28.69	2.39	12.60	54.92	125.96	2
IndusInd Bank Ltd.	22.04	0.42	24.35	0.36	24.21	61.88	139.21	1
Jammu & Kashmir Bank Ltd.	15.50	0.06	15.95	4.31	21.04	62.53	107.39	7
Karnataka Bank Ltd.	11.81	0.33	12.73	2.35	17.91	60.00	87.90	16
Karur Vysya Bank Ltd.	12.03	0.21	15.30	0.55	19.27	66.26	93.39	13

Contd.

Contd. Table 8

Karur Vysya Bank Ltd.	12.03	0.21	15.30	0.55	19.27	66.26	93.39	13
Kotak Mahindra Bank Ltd.	12.17	0.48	24.45	1.06	28.80	61.72	106.62	9
Lakshmi Vilas Bank Ltd.	16.34	0.63	11.68	1.18	18.89	68.52	105.92	10
RBL Bank Ltd.	15.69	0.83	14.44	0.59	23.72	54.21	102.64	12
South Indian Bank Ltd.	12.94	0.21	11.90	2.89	18.90	64.73	93.19	14
Tamilnad Mercantile Bank Ltd.	11.82	0.00	16.68	0.89	17.84	64.02	92.88	15
The Dhanalakshmi Bank Ltd.	12.75	1.42	6.73	2.78	29.73	55.79	87.74	17
Yes Bank Ltd.	16.50	0.25	16.43	0.29	18.32	59.43	107.29	8

Source : Compiled from Secondary Data (Reserve Bank of India)

*Ratios are in Percentage.

Solvency status of selected private sector banks for the year 2016 has been expressed in the above Table 8. According to the results of the Table, all the selected private sector bank may be considered as super sound banks as the solvency scores are higher than 70 percent. It is an indication of good financial position of selected private sector banks for the year 2016. The best performing bank in terms of long-term financial soundness has been found as Indusind Bank Ltd. and the second top performing bank is IDFC Bank Ltd. as the solvency score of these banks is the highest among the group of public sector banks. Federal Bank Ltd. has been observed as the bottom performing bank among the group of selected private sector banks which is followed by Catholic Syrian Bank Ltd.

Table 9
Solvency Scores of Private Sector Banks for the Year 2017

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Axis Bank Ltd.	14.95	0.08	18.46	2.27	21.70	62.03	107.28	8
Catholic Syrian Bank Ltd.	12.15	0.50	11.82	5.51	27.39	50.05	89.00	16
City Union Bank Ltd.	15.83	0.17	20.07	1.71	18.84	67.57	113.45	6
DCB Bank Ltd.	13.76	1.19	17.15	0.79	27.00	65.78	105.41	9
Federal Bank Ltd.	12.39	0.30	15.26	1.28	22.64	63.78	95.19	14
HDFC Bank Ltd.	14.55	0.06	20.65	0.33	24.15	64.20	108.92	7
ICICI Bank Ltd.	17.39	0.15	25.75	5.43	20.03	60.15	125.32	1
IDFC Bank Ltd.	18.90	3.03	23.14	1.14	13.38	44.05	120.78	3
IndusInd Bank Ltd.	15.31	0.33	22.78	0.39	25.75	63.30	114.70	5
Jammu & Kashmir Bank Ltd.	10.80	0.06	13.78	4.87	23.83	60.74	88.79	17
Karnataka Bank Ltd.	13.30	0.44	15.62	2.64	21.76	57.65	97.12	13
Karur Vysya Bank Ltd.	12.54	0.20	16.10	2.53	20.06	66.19	97.51	12
Kotak Mahindra Bank Ltd.	16.77	0.43	25.31	1.26	26.53	63.41	123.79	2
Lakshmi Vilas Bank Ltd.	10.38	0.54	11.58	1.76	19.45	67.33	84.86	18
RBL Bank Ltd.	13.72	0.77	17.04	0.64	23.64	60.50	101.31	10
South Indian Bank Ltd.	12.37	0.24	12.81	1.45	17.93	62.43	90.24	15
Tamilnad Mercantile Bank Ltd.	14.02	0.39	17.05	1.74	18.51	59.41	100.47	11
The Dhanalakshmi Bank Ltd.	10.26	1.70	8.91	2.58	29.04	52.27	80.33	19
Yes Bank Ltd.	17.00	0.21	20.30	0.81	20.00	61.50	115.26	4

Source : Compiled from Secondary Data (Reserve Bank of India)
*Ratios are in Percentage.

Table 9 is related to the performance of private sector banks in terms of financial soundness for the year 2017. It can be seen from the results of the Table that all the selected private sector banks have been found securing solvency score in excess of 70 percent. On the basis of this result, it can be concluded that all the selected private sector banks are super sound banks.

Further, it may be said that all the selected private sector banks have sound financial position. ICICI Bank Ltd. has been found as the bank having highest solvency score among the group followed by Kotak Mahindra Bank Ltd. The bottom performing bank among the group is The Dhanlaxmi Bank Ltd. which is followed by Luxmi Vilas Bank Ltd. It means that ICICI Bank Ltd. is at the top in terms of solvency and contrarily, The Dhanlaxmi Bank Ltd. is at the bottom.

Table 10

Solvency Scores of Private Sector Banks for the Year 2018

Bank	Capital Adequacy Ratio	Capital to Assets	Equity to Assets	NPA to Loan	Cost to Income	Loans to Assets	S	Rank
Axis Bank Ltd.	16.57	0.07	18.28	3.64	24.65	63.59	115.06	7
Catholic Syrian Bank Ltd.	9.91	0.51	10.69	4.46	30.65	58.84	83.69	19
City Union Bank Ltd.	16.22	0.17	20.68	1.70	19.18	69.74	116.51	4
DCB Bank Ltd.	16.47	1.02	17.56	0.72	28.67	67.29	116.20	5
Federal Bank Ltd.	14.70	0.29	17.37	1.69	22.46	66.48	107.07	12
HDFC Bank Ltd.	14.82	0.05	19.93	0.40	23.77	61.88	107.98	11
ICICI Bank Ltd.	18.42	0.15	23.78	5.43	21.69	58.28	126.30	2
IDFC Bank Ltd.	18.00	2.69	21.43	1.69	16.45	41.23	115.19	6
IndusInd Bank Ltd.	15.03	0.27	21.24	0.51	25.38	65.40	112.59	9
Jammu & Kashmir Bank Ltd.	11.42	0.06	13.68	4.89	27.88	63.46	93.16	17
Karnataka Bank Ltd.	12.04	0.40	14.97	2.96	20.99	67.14	95.64	14
Karur Vysya Bank Ltd.	14.43	0.22	18.50	4.16	21.53	66.94	108.76	10
Kotak Mahindra Bank Ltd.	18.22	0.36	27.94	0.98	27.00	64.06	132.15	1
Lakshmi Vilas Bank Ltd.	9.81	0.63	10.88	5.66	23.08	63.74	84.16	18
RBL Bank Ltd.	15.33	0.68	20.93	0.78	26.96	65.10	114.39	8
South Indian Bank Ltd.	12.70	0.22	12.46	2.60	18.80	65.99	93.33	16
Tamilnad Mercantile Bank Ltd.	14.83	0.38	17.58	2.16	18.90	62.68	105.60	13
The Dhanalakshmi Bank Ltd.	13.87	2.06	10.14	3.19	27.07	49.73	93.73	15
Yes Bank Ltd.	18.40	0.15	16.34	0.64	20.45	65.14	116.81	3

Source : Compiled from Secondary Data (Reserve Bank of India)

*Ratios are in Percentage.

Table 10 is concerned with the analysis of financial soundness of selected private sector banks for the year 2018, and it is found that all the selected private sector banks have been found in the category of super sound banks as the calculated solvency scores with the help of Bankometer are higher than 70 percent. It is an indication of the higher level of ability to pay long-term obligations in time for private sector banks. As per bank-wise results, Kotak Mahindra Bank Ltd. has been found at the top position as the solvency score is the highest in case of Kotak Mahindra Bank Ltd. among the group of selected private sector banks. The second top performing bank is ICICI Bank Ltd. On the other hand, the bottom performing bank among the selected private sector banks is Catholic Syrian Bank Ltd. which is followed by Luxmi Vilas Bank Ltd.

CONCLUSION

The banking sector of a country is the core part of the financial system of the country and the development of banking sector contributes to the economic development of the country upto a large extent. The financial soundness of the bank is an important parameter for banks which is closely related with the profitability. The present study has been conducted to evaluate the financial soundness of the public sector banks and private sector banks. In the results of the study, all the selected public and private sector banks have been found super sound banks as the calculated solvency scores are higher than 70 percent. It indicates that all the selected banks are good in terms of financial soundness and are able to pay their obligations in time. It has also been found that Indian Bank is the top performer throughout the study period among the public sector banks. United Bank has been found as the bottom performer for two years out of five years of the study. On the other hand, in case of private sector banks, Kotak Mahindra Bank Ltd. has been observed as the top performing bank for three years out of five years of study. Further, the solvency scores of private sector banks have been found higher than the solvency scores of public sector banks which is an indication of better solvency position of private sector banks in comparison to the public sector banks.

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