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Operating Efficiency of Indian Public Sector Banks in Light of Basel III Norms

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Abstract

A sound banking system is that system which enjoys the efficiency in operations, strong liquidity position and continuous path of profitable avenues, all these factors foster banks to survive in a competitive environment and walk-in line with the market dynamics. The resilience of the banking sector always remains a major concern. In the wake of global financial crises and frauds, the analysis of the operational and financial performance of banks has gained increased attention over the past few years. The sound financial performance of banks is the key to absorbing the unexpected losses arising on account of the crisis. Moreover, the financial health of banks plays a significant role in implementing financial regulations as the poor financial performance of banks may lead to bankruptcy. Public sector banks are a dominant player who plays significant role in the Indian economy. Thus, the present study intends to examine the operational performance of Indian public-sector banks and investigate the impact of Basel III on the operational efficiency of banks. The study used operational efficiency indicators (NIM, Cost income ratio) of twenty-one Indian public sector banks for a period of ten years (2008-2017). In addition, the study analyzes the risk weighted assets of banks during the implementation of Basel III norms. Conclusively, the study can be useful for bankers, decision-makers and particularly for the investors looking for profitable opportunities in the Indian banking sector. The study recommended that banks with low operational efficiency should focus on improving their financial performance to boost their level of efficiency to comply with Basel norms.

Keywords: Basel III, Capital Regulations, Net Interest Margin, Operational Performance, Indian Public Sector Banks

Introduction

The analysis of the financial performance of the banking sector has been in the spotlight of many researchers since the financial crisis of 2007-08. With the deteriorating financial and operational health of banking institutions, it is vindicated that bank performance needs an increased investigation from industry analysts and scholars. The recent global financial crisis contemplated the significance of banks' performance for the stability of the economy as well as the banking sector.

Furthermore, decreasing asset quality, profitability and low lending faced by banking industry all over the world are significant challenges which may put negative repercussion on the economy which can lead to economic failures and crises.

Banks invariably are the foundation stone and a catalyst in growth and stability of an economy. It is strong enough a reason, why banks and banking reforms in India have occupied paramount importance since independence. The government has been making efforts to reform the banking sector in accordance with the changing landscape, with-in, and external to our economy (Chaki & Chauhan, 2018).

Thus, Basel III norms have been emerged as stringent regulations to foster a healthy and sound international banking system. Banks all over the world are facing several problems in implementing Basel III norms due to lack of adequate funds, increasing NPAs, pressure on profitability. It is possible that Indian public-sector banks have been undergoing through pressure after implementing capital regulations. That's why full attention is given to banks' performance to avoid the crisis and protect the economy and depositors.

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Banks which have a sound financial position can easily implement the new regulations but it is difficult for the financially weaker banks to determine the required capital as per the international norms. Thus, financial analysis has become the need of the hour for the banking sector to identify the financial position. In this context, evaluating the financial health of Indian bank has become compulsory to compete with the environmental changes. The study concluded that the financial position of the banking sector has always been a concerned matter for both the bankers and stakeholders because the unsound financial position can lead to bankruptcy (Krishan & Kavita, 2017).

The efficiency-based measurement evaluates the operating performance of public sector banks using NIM, C/I ratio. The operating performance of Indian public-sector banks has been evaluated by using operating efficiency indicators. These are as:

- *NIM Interest Margin:* is the net interest income divided by average interest earning assets. It is the ratio of net interest income to invested assets. NIM is a significant element for banks because banks lend at one rate and pay depositors at another rate.

  NIM = Interest Received – Interest Paid / Average Invested Assets

- *C/I the Cost Income Ratio:* reflects the extent to which non-interest expenses of a bank make a charge on the net total income (total income - interest expense). The lower the ratio, the more efficient is the bank.

  Cost Income Ratio = Non-interest expenditure/Net Total Income * 100.

This is necessary to check the operational performance of Indian public-sector banks. Indian public-sector banks may be undergoing through a pressure after implementing capital regulations. As we know, the capital regulations under Basel III are stringent and need additional funds to comply. Therefore banks will face difficulty in obtaining funds to comply with Basel III. The increasing borrowing cost may create bankruptcy if banks do not have sufficient profits. All these issues will directly affect the performance of banks resulting decline in profitability and operating efficiency.

The high cost to meet capital norms and cost to borrow funds may decline the profitability and other reasons are heavy investment cost in upgrading technology and validating credit rating models. Therefore, implementing Basel III can be a financial burden for small banks because weaker banks have to raise overall capital due to low profits and immediate stress on banks may lead to close down their operations. There can be a negative impact of implementing Basel III on bank lending and interest rate because banks have to increase interest rate due to an increase in external borrowings. Thus, keeping above issues in mind, it is desirable to check the operational efficiency of banks and identify those banks which are operating under stress due to the pressure of maintaining high capital adequacy ratio.

Review of Literature

Kumbirai and Webb (2010) explored the performance of the South African banking sector for the period of 2005-2009. The findings showed a significant change in the profitability of banks due to the global financial crisis in 2007. This led to decline in profitability, low liquidity and decreasing asset quality of banks in South Africa.

Alpera and Anbar (2011) investigated the determinants of banks' profitability in Turkey for the period of 2002-2010. The results revealed that the size of assets and non-interest income had a positive and significant impact on the profitability of banks whereas the size of the loan had a negative impact on profitability. The interest rate affects the profitability of banks positively. The authors suggested that the profitability of banks can be improved by increasing the non-interest income and decreasing credit/asset ratio.

Brindadevi (2013) analyzed the profitability of Indian private sector banks by using financial indicators such as interest spread, net profit margin, return on long term fund, return on net worth & return on asset. The author recommended that measurement of profitability is the most significant measure of success of the banking business. The profitable banking business is capable to reward its owners with a higher return.

Roamn and Danuletiu (2013) investigated the factors that affect the profitability of banks in Romania over the period 2003-2011. The results showed that bank-specific variables and external environment is the significant factors which influenced the banks' profitability. The

authors concluded that asset quality, banking liquidity and management quality significantly influence the profitability. The study suggested that banks should change its specific operations to improve profitability.

Islam (2014) attempted to examine the financial performance of National Bank Limited Bangladesh for the period of 2008-2013 and identified the differences in performance of banks over two periods (2008-10 & 2011-13). The author concluded that the performance of banks depends on the ability of top management in preparing strategic plans and the proper implementation of its strategies. The study suggested specific areas for the bank to work on that can improve their performance and ensure sustainable growth.

Titko et al. (2015) explored the drivers of bank profitability in Latvia and Lithuania over the period 2008–2014. The performance of banks is measured by using financial and non-financial indicators. The authors concluded that profitability is driven by asset quality, efficient management and sound banking operations.

Menicucci and Paolucci (2016) explored the relationship bank-specific factors and profitability in the European banking sector covered 28 European banks for the period 2006–2015. The study showed that capital adequacy ratio and bank size have a positive impact on bank profitability and banks with higher deposit ratio tend to be more profitable. The authors suggested that special attention should be given to bank-specific factors in order to boost the profitability.

Jyoti et al. (2016) examined the efficiency of 46 Indian public and private sector banks from 2010 to 2014 using non-parametric DEA technique. The findings indicated that private banks are more efficient than public sector banks and public banks suffered more from scale inefficiency than managerial inefficiency. The study concluded that an efficient and stable banking system is essential for the productivity of the economy.

Mehta and Bhavani (2017) measured the impact of specific variables on bank's profitability of banks in the UAE. The study was conducted on 19 banks for the period of eight years (2006-2013). The results indicated that maintaining a high capital adequacy ratio, improving asset quality are the variables that directly impact the profitability of banks. The authors concluded that the profitability of banks can be increased by engaging in non-traditional sources of revenue. Apart from that, the authors recommended a profitability-enhancing model which can be used by banks to enhance their performance.

Nuhiu et al. (2017) attempted to measure the determinants of profitability of banks which affect the financial performance of commercial banks in Kosovo. The authors used various financial indicators such as return on average assets (ROAA) and net interest margin (NIM). The study concluded that internal factors such as asset quality, capital adequacy and management efficiency affect the profitability of banks in Kosovo.

Maiti and Jana (2017) attempted to identify the determinants of performance of Indian banks including nationalised banks, SBI and its Associates, new private sector banks, old private sector banks and foreign banks. The study explored the impact of various internal factors on profitability. The findings found that net interest margin, non-interest income and non-performing assets significantly influence the level of profitability. The authors concluded that banks should frame suitable policies to improve the revenue generated activities and banks need to balance the non-interest income.

Mohamed Zaky and Soliman (2017) aimed to determine the impact of Basel III on the Egyptian banks. The study explored the impact of Basel III on small and large size banks, low and high capitalised banks. The authors concluded that Basel III has a negative impact on small banks and banks with low capital base as these weak banks are unable to comply with stringent regulations due to lack of funds and low profitability.

Rekik and Kalai (2018) analyzed the determinants of profitability in conventional banks in Tunisia as well as 13 different countries. The study covered the data from 110 banks over the period 1999-2012. The findings showed that cost efficiency has not more impact on profitability than profit efficiency. It was concluded that the profitability of banks is significant as the soundness of banking institutions is directly related to the soundness of the entire economy.

Makkar and Hardeep (2018) attempted to measure the profitability of banks and identified the key factors which influence the profitability of 46 Indian commercial banks over the period of 15 years (2001-2016). The findings

revealed that liquidity, solvency and efficiency are the significant factors that influenced the profitability of Indian commercial banks. The authors concluded that the profitability of public sector banks is satisfactory as compared to the profitability of private sector banks.

Shukrant (2018) identified certain financial and operating issues prevailing in Indian banking sector. These issues include non-performing assets of public sector banks, money laundering cases, inability to implement Basel III due to weak financial position and low profitability which require special attention from academician, researchers, policymakers, bankers and government.

Vinod and Mohammed (2018) discussed that issues and challenges faced by banking industries worldwide have been widely debated both in academic and policy level. The study used cost to income ratio for measuring operational efficiency. The findings depicted that the operational efficiency of Indian commercial banks has declined and private sector banks were found more operationally efficient than government-owned banks.

Lelissa and Kuhil (2018) analyzed the impact of selected regulatory variables on bank performance using panel regression on 18 commercial banks in Ethiopia during the period 1999-2015. The study concluded that variables (prudential regulatory variables) employed in this study (interest rate, reserve rate, net interest margin, and level of entry capital) are not statistically significant to impact the bank performances.

Ramesh (2019) identified the bank-specific factors that determine the performance of 39 Indian commercial banks from 2009 to 2017. The results revealed that capital adequacy ratio has a significant impact on return on assets whereas the insignificant impact on return on equity. Net interest margin indicates a positive impact on bank performance. Credit deposit ratio and cost-income ratio have no significant impact on bank performance.

Objectives

The present study has the following objectives:

- To examine the impact of Basel III norms on the operating efficiency of Indian public sector banks.
- To analyze the risk-weighted assets of Indian public-sector banks during implementation of Basel III capital norms.

Methodology

The present study is based on secondary data collected from the annual reports of the banks for the period of 2008-2017 divided into two phases: Pre Basel III period (2008-2012) and Post Basel III period (2013-2017). In order to achieve the objectives of this study, descriptive and analytical approaches have been used. The present study estimates NIM (Net interest margin) and C/I (Cost-income ratio) of twenty-one Indian public sector banks for the period of 2008-2017. RWAs (Risk-weighted assets) for twenty-one Indian public sector banks for the period of four years from 2014-2017 were computed. The analysis of operating efficiency of the banks was carried out through descriptive statistics, and histogram, chart and graphs. Further, the study used ANOVA for testing the hypotheses. The analysis has been processed through Ms-Excel.

Results and Discussion

Impact of Implementation of Basel III on Operating Efficiency

Basel III capital norms are stringent regulations and to implement these regulations is a challenging task which may strongly influence the operating performance of Indian banks. In this regard, it is essential to identify the change in operational performance of banks due to the implementation of Basel III. Thus, the impact of Basel III norms on operating efficiency of banks has been measured.

NIM and C/I ratio indicates the operational performance of banks. Therefore, changes in these indicators reveal the positive and negative change in the operating performance of banks. The following tables show the extent of change in operating ratios in pre-Basel III and post-Basel III.

Table 1: Change in NIM: Impact of Basel III on Operating Efficiency

Public-Sector Banks	*Pre-Basel III NIM (2008-2012)*	*Post-Basel III NIM (2013-2017)*	*Increase (+)/Decrease (-)*
Allahabad Bank	3.054	2.538	-0.516
Andhra Bank	3.344	3.044	-0.3
Bank Of Baroda	2.928	2.314	-0.614
Bank Of India	2.63	2.224	-0.406
Bank Of Maharashtra	2.814	2.666	-0.148
Canara Bank	2.782	2.268	-0.514
Central Bank Of India	2.49	2.692	+0.209
Corporation Bank	2.542	2.128	-0.414
Dena Bank	2.906	2.346	-0.56
Indian Bank	3.544	2.622	-0.922
Indian Overseas Bank	2.894	2.07	-0.824
Oriental Bank Of Commerce	2.558	2.386	-0.172
Punjab National Bank	3.694	3.018	-0.676
Punjab & Sind Bank	2.644	2.086	-0.558
Syndicate Bank	2.584	2.222	-0.362
Uco Bank	2.374	2.246	-0.128
Union Bank of India	2.724	2.292	-0.432
United Bank of India	2.356	1.966	-0.39
Vijaya Bank	2.542	2.146	-0.396
State Bank of India	3.228	2.938	-0.29
Idbi	1.416	1.978	+0.562

Source: Compiled from the annual reports of the banks

NIM of all the public-sector banks has decreased rapidly during 2013-2017. Table 1 shows the negative change in NIM of all public-sector banks which indicates the negative impact of implementing Basel III on operating performance of banks because, after implementation of capital regulations, the progressive decline in NIM has been observed. All public-sector banks have negative change in NIM which reveals that the Basel III norms impacted the operational efficiency of Indian public banks negatively. There are only two public sector banks namely IDBI and Central Bank observed positive change in NIM.

Table 2: Summary Statistics of NIM of Banks Over Two Periods

Descriptive Statistics	*Pre-Basel III NIM (2008-2012)*	*Post-Basel III NIM (2013-2017)*
Mean	2.76	2.39
Standard Error	0.104	0.071
Median	2.724	2.292
Standard Deviation	0.479	0.327
Sample Variance	0.229	0.107
Kurtosis	2.44	-0.36
Skewness	-0.518	0.78
Range	2.278	1.078
Minimum	1.416	1.966

Maximum	3.694	3.044
Sum	58.048	50.19
Count	21	21
Largest (1)	3.694	3.044
Smallest (1)	1.416	1.966
Confidence Level (95.0%)	0.218	0.149

ANOVA test was applied to examine whether there are significant differences in NIM of banks over two periods of Basel III.

HI: There are no significant differences between the NIM of public sector banks over two periods of Basel III.

Table 3: Output of ANOVA for NIM

Source of Variation	*SS*	*Df*	*MS*	*F*	*P-value*	*F crit.*
Between Groups	1.470	1	1.470	8.724	0.00	4.084
Within Groups	6.740	40	0.168			
Total	8.210	41				

The Table 3 demonstrates that computed F value is found more than table value (8.724>4.084) which reflects the rejection of the null hypothesis H1 describes that there are significant differences in NIM of public-sector banks over two periods: pre-Basel III and post-Basel III.

Table 4: Change in Cost Income Ratio: Impact of Basel III on Operating Efficiency

Public-Sector Banks	*Pre-Basel III C/I Mean*	*Post-Basel III C/I Mean*	*Increase (+)/Decrease (-)*
Allahabad Bank	27.95	40.23	+12.28
Andhra Bank	42.89	43.97	+1.08
Bank of Baroda	43.45	44.60	+1.15
Bank of India	40.64	48.26	+7.62
Bank of Maharashtra	51.99	52.96	+0.97
Canara Bank	40.98	48.72	+7.74
Central Bank of India	55.81	63.54	+7.73
Corporation Bank	30.87	43.70	+12.83
Dena Bank	39.52	56.39	+16.87
Indian Bank	39.77	48.38	+8.61
Indian Overseas Bank	32.99	54.46	+21.47
Oriental Bank of Commerce	41.84	43.72	+1.88
Punjab National Bank	41.94	44.22	+2.28
Punjab & Sind Bank	57.06	57.14	+0.08
Syndicate Bank	43.77	52.17	+8.4
UCO Bank	38.03	40.44	+2.41
Union Bank of India	42.32	49.16	+6.84
United Bank of India	28.94	35.81	+6.87
Vijaya Bank	45.13	57.21	+12.08
State Bank of India	48.11	49.42	+1.31
IDBI	41.27	42.2	+0.933

Source: Compiled from the annual reports of the banks

In comparison to Pre-Basel III period, cost/income ratio of all public-sector banks has increased speedily during Post-Basel III period. A single bank even has not found with decreasing cost/income ratio which reflects the low operational efficiency of banks. Most of the banks like Allahabad Bank, Corporation Bank, Dena Bank, Indian Overseas Bank and Vijaya bank observed more than 10 points increase in cost/income ratio which can be considered as the biggest threat to Indian public-sector banks. Thus, it can be said that Public-sector banks are operationally inefficient in terms of their cost/income ratio (Table 4).

Table 5: Summary Statistics of C/I of Banks Over Two Periods

Descriptive Statistics	*Pre-Basel III C/I*	*Post-Basel III C/I*
Mean	41.67	48.41
Standard Error	1.67	1.498
Median	41.84	48.38
Standard Deviation	7.65	6.86
Sample Variance	58.58	47.15
Kurtosis	0.23	-0.24
Skewness	0.152	0.33
Range	29.11	27.73
Minimum	27.95	35.81
Maximum	57.06	63.54
Sum	875.27	1016.7
Count	21	21
Largest (1)	57.06	63.54
Smallest (1)	27.95	35.81
Confidence Level (95.0%)	3.48	3.12

As shown in the Table 5 the Cost/income ratio of all public-sector banks showed negative change during 2013-2017. As compared to the pre-Basel III period (2008-2017), operational efficiency of public banks in post-Basel III period (2013-2017) has declined progressively. The worst change in Cost/income ratio reflects the negative impact of implementing Basel III on operational performance.

Following hypothesis has been tested by using ANOVA:

H2: There are no significant differences between the cost/income ratio of public sector banks over two periods of Basel III.

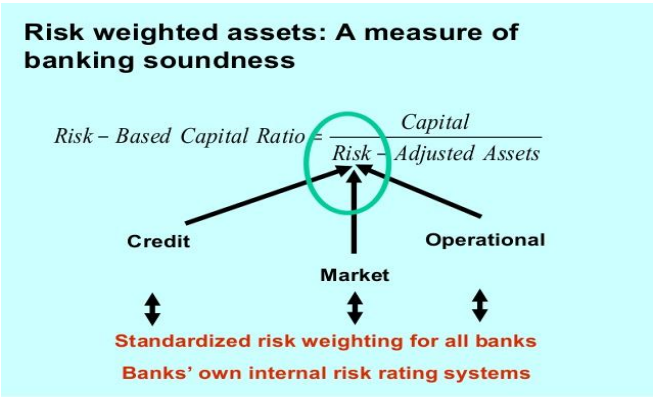
Table 6: Output of ANOVA for Cost/Income Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit.*
Between Groups	476.2	1	476.24	9.00	0.00	4.084
Within Groups	2114.8	40	52.87			
Total	2591.1	41				

The Table 6 shows that computed F value is found larger than table value (9.00>4.084) which results into the rejection of the null hypothesis H2 indicates that there are significant differences in Cost/income ratio of public-sector banks over two periods: pre-Basel III and post-Basel III.

Analysis of Risk-Weighted Assets of Indian Public-Sector Banks

The primary business of a bank is to generate money from the assets. The assets of banks are generally in the form of loans. Some banks own various kinds of securities as investments but all investments don't have the same types of risk. Risk asset is used to depict any financial instrument or security that contains intense risk. Capital size of the banks measures its ability to withstand risk. Thus, larger the capital of a bank the more stable it will be during the recession.



Source: Reserve Bank of India

Fig. 1: Calculation of Risk-Weighted Assets

(RWAs) risk-weighted assets are the assets of the bank or off-balance sheet exposures which are weighted in terms of intensity of risk. This type of asset calculation

is performed while ascertaining the capital requirements of banks. The term risk-weighted has been used by the global banking regulators. Risk weights ascertain the minimum capital need of a financial institution.

To compute the risk weights, each asset is adjusted in terms of risk associated with it to calculate the real exposure and potential losses of banks. Global regulators suggest the calculations of risk weights to ascertain the total amount of loss-absorbing capital of banks so that bank can sustain during stress periods.

Bank's balance sheet includes: On balance sheet items and off-balance sheet items. A balance sheet is the financial statement of banks which reveals the bank's assets, liabilities and shareholder equity. On balance sheet items are the items which are included in the balance sheet of banks. It shows what a bank owns and owes and the total amount employed by shareholders.

Off-balance sheet (OBS) items or leverage means the asset (Debt, financing) which is not included in the bank's balance sheet but these are deferred or contingent such as banks usually offer brokerage services and asset management to the clients. These items are very significant for various parties to measure the bank's health and financial status.

Basel Committee on Banking Supervision published the reasons for using the risk-weighted approach to calculate the capital requirements. These are:

- It is easy to compare the banks across varied geographies.
- It is easy to include the off-balance sheet exposures in calculations of capital.

Source: Reserve Bank of India

Fig. 2: Types of Risks in Risk Weighted Assets

In calculations of total risk-weighted assets of banks, there are various types of risks are included. These are:

- Credit risk
- Market risk
- Operational risk
- Counterparty risk
- Liquidity risk

Various approaches are employed in assessing risks, the following techniques are used in measuring credit risk.

- Foundation IRB
- Advanced IRB
- Standardized approach

To measure the operational risk, the following approaches are used:

- Basic indicator approach
- Standardized approach
- Advanced measurement approach

To assess market risk, these approaches are used:

- Standardized approach
- Internal VAR models

Different kinds of assets are associated with different risk weights. The computation of risk weights depends on the approaches adopted by banks. There are various types of approaches such as standardized approach, Internal rating based approach and advanced approaches. The risk weights of assets differ according to the risk inherent in a specific asset and the total losses assumed by banks in case of default.

In this way, a loan secured by any asset is less risky and would be assigned a low multiplier than an unsecured asset. Bank loans generally share the large percentage of the bank's assets. Risk-weighted assets are employed to calculate the minimum requirement of capital that must be maintained by banks to reduce the chances of bankruptcy.

The capital requirement of the bank is based on the assessment of risk for each and every asset of the bank. The local regulators use several techniques to measure the risk of a specific asset. For example, a loan secured by a letter of credit will be high risk and need more capital than a mortgage loan secured by collateral.

The risk weights have been changed in all phases of Basel norms. The risk weights in three phases of Basel are:

Various types of banks assets have different risk profiles, weights are assigned according to the level of risk. Firstly, less risky assets are adjusted by applying lower risk weights. Assignments of risk weights are done on the basis of credit rating agencies. The rates assigned by agencies are the basis of ascertaining the risk weights.

	1988 Basel I	2004 Basel II	2015 Basel III (revised)
Sovereigns	0%	0-150%	0-150%
Institutions	20%	20-150%	20-150%
Corporates	100%	20-150%	20-150%
Retail mortgages	50%	35%	25-75%
Retail other	100%	75%	75%

Source: Reserve Bank of India

Fig. 3: Changes in Risk Weights Over the Periods

Table 7 presents the risk-weighted assets of Indian public-sector banks after the implementation of Basel III capital regulations. It can be seen that risk-weighted assets of all banks have increased progressively from 2014 to 2017. All public-sector banks have observed a progressive rise in the risk-weighted assets. The highest risk-weighted assets were accounted for by Punjab & Sind Bank and United bank of India had the lowest risk-weighted assets among the public-sector banks.

As depicted in the chart below, there were huge variations in risk-weighted assets of public-sector banks. Punjab & Sind bank had the highest risk-weighted assets followed by Andhra banks and Punjab national bank. The increasing trend of risk-weighted average is the negative impact of the implementation of Basel III on Indian public-sector banks. This is the worst condition for Indian public-sector banks as these banks would need additional funds to absorb the loss of risky assets.

Conclusions

It is concluded that Indian public-sector banks are not operationally stronger and stable due to low NIM and high Cost/income ratio recorded by all banks during the post-Basel III period. This indicates that after the implementation of Basel III capital norms, low operational performance of banks has been observed. There found a negative impact of implementing Basel III capital norms on the NIM and Cost/income ratio of banks because of progressive deterioration in these indicators during 2013-2017. Thus, operational efficiency (NIM, Cost/income ratio) of banks has declined after the implementation of Basel III norms. This is due to increase in capital requirement which poses an additional financial burden on banks as banks need to hold significantly more funds to comply with Basel capital regulations which have an adverse impact on the lending, profitability and operational performance. Moreover, it is considered that banks are not operationally sound because the lower NIM and higher Cost/income ratio cannot support greater future growth. It is recommended that RBI need to maintain conducive financial environment and revise its strategies to maintain overall banks efficiency.

Table 7: Analysis of Risk Weighted Assets (RWAs) of Public-Sector Banks During the Implementation of Basel III Norms (2014-2017)

Public-sector banks	2014	2015	2016	2017	Mean	S.D	Max	Min
Allahabad bank	144435	152475	1573842	156212	148455	711417.6	157384	144435
Andhra bank	1080833	124316.91	135884	155058	374023	471377.1	108083	124316.91
Bank of Baroda	3605491	3961479	3958674	4150085	3918932	227351.8	4150085	3605491
Bank of India	358052	411535	343754	346611	364988	31640.31	411535	343754
Bank of Maharashtra	843841	934346	1016902	954732	937455.3	71609.04	1016902	843841
Canara Bank	3126456	3433910	333869	338999	1368926	1704204	3433910	333869
Central Bank of India	1851120	1984293	2031987	1786172	1913393	114243	2031987	1786172
Corporation Bank	1301004	139420	1457063	1730141	1156907	701126.3	1730141	139420
Dena Bank	78947	84728	87616	83174	83616.25	3616.235	87616	78947
Indian Bank	1101088	117563	124743	131436	368707.5	488286.527	1101088	117563
Indian Overseas Bank	185476.4	194365	194174	169148	185790.9	11844.5007	194365	169148
Oriental Bank of Commerce	147935	158945	168598	174531	162502.3	11643.4215	174531	147935
Punjab National Bank	3877173	4456001	4580216	455608	3342250	1948661	4580216	455608
Punjab & Sind Bank	5715208	5649846	5522351	5713468	5650218	90506.66	5715208	5522351
Syndicate Bank	1277360	1602485	173071	177481	807599.3	742112.6	1602485	173071
UCO bank	116727	132019	129949	119332	122002.7	7601.634	132019	116727
Union Bank of India	229833	253162	273791	291204	261997.5	26487.27	291204	229833
United Bank of India	60563	66798	73079	71197	67909.25	5559.912	73079	60563
Vijaya Bank	74657	77837	83883	86798	80793.75	5537.645	86798	74657
State Bank of India	1492535	17098814	1772683	1935270	1733496	7684834	17098814	1492535
IDBI	2699161	286073	295278	268989	282133.5	1207906	2699161	268989
Mean	1398471.21	1967638.61	1158638.43	918840.286	1111052.2			
S.D	1565953	3861291	1618932	1479319	1493540			

Source: Compiled from the annual reports of the banks

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