

Impact of BASEL III on Profitability Of Indian Public Sector Banks

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Abstract

BASEL norms, being the backbone of banking structures, are supervision regulations which are issued by BCBS (Basel Committee for Banking Supervision). The present study tries to analyze the impact of implementation of BASEL III norms on profitability of 5 public sector banks. For the analysis paired t-test and descriptive statistics were applied using MS EXCEL.

Key Words: “*BASEL III*”, “*Basel Norms*”, “*BCBS*”, “*Paired t test*”, “*Descriptive test*”

Introduction

The Global financial crisis resulted into the implementation of Basel III as a regulatory response with the main objective to improve the shock absorbing capacity of individual banks. It ensures that the banking system does not crumble down and its spill-over impact is minimized on the real economy **Mahapatra, B. (2012)**.

Basel norms are devised by the Bank for International Settlements in order to set international norms for risk management in banks. While Basel I focused on the importance of capital in managing banking risk, Basel II emphasized on the forms of capital to be recognized in capital adequacy measures. The Basel III aims to get banks to move away from short-term funding, improving risk management, governance, to strengthen banks' transparency and making better disclosures. **Mallya, P. D. (2013)**

The basic framework of Basel III suggests enhancing the bank's stability and safety, improving the quality and quantity of capital structure, liquidity, leverage ratio, and enhanced and better disclosures. **Jayadev, M. (2013)**

Coban, M. K. (2019) in his research stated that the process of compliance takes place at three levels: policy formulation at “international level”, an “interpretation stage” in between international and domestic levels, and finally “domestic policy process”.

In India, from April 01, 2013 Basel III capital regulation has been implemented in phases and was fully implemented as on March 31, 2019.

Literature Review

Dietrich, A, Hess, K., & Wanzenried, G. (2014) in their study analyzed Net Stable Funding Ratio of 921 Western European banks between 1996 and 2010 and found out that majority of banks have not fulfilled NSFR minimum requirements.

A study by **Yan, M., Hal, M. J., & Turner, P. (2012)** provided evidence that the Basel III reforms have significant net positive long-term effect on the United Kingdom economy.

Balasubramaniam, C. S. (2012). In his paper revealed that although Public Sector Unit banks are dominant banks in the Indian financial system but they may take more time and face more challenges than private sector banks in following the Basel III guidelines in the ensuing years.

Bibi, S., & Mazhar, F. (2019). in their study drew comparison between performance of Islamic and Conventional banking sector of Pakistan in terms of the impact of BASEL III reforms on the profitability and liquidity. The results found that BASEL III has a significant positive relationship with the profitability and liquidity of the Islamic sector while Conventional banking sector needs to redesign their policies.

Xiong, W., Li, B., Wang, Y., & Stanley, H. E. (2019) studied Impacts of four Basel III prudential regulations on money creation and found out that the banking system's liquidity and default risk portfolios also play key roles in determining the maximum money supply.

Boora, K., & Jangra, K. (2019) The results show that Indian public sector banks are positively inclined toward Basel III, and the awareness level of Indian banks' managers is adequate concerning Basel III. The banks have required resources for the proper implementation of Basel III, which is a prerequisite for its implementation

Objectives

- To analyze the impact of BASEL III norms on profitability of banks (Return on Assets and Return on Equity)
- To Check whether there is a significant difference before and after implementation of BASEL III

Hypothesis

- H0(a)- there is no impact of BASEL III norms on Return on Assets
- H1(a)- There is a significant impact of BASEL III norms on Return on Assets
- H0(b)- there is no impact of BASEL III norms on Return on Equity
- H1(b)- There is a significant impact of BASEL III norms on Return on Equity

Research Methodology

The research design used in the paper is descriptive research. 5 Public sector banks were selected on basis of their market capitalization. The analysis of the objectives is done through paired t test and descriptive statistics using MS Excel.

Analysis and Interpretation

Following banks were selected on the basis of their market capitalization (As on December 01 2019) for analyzing the impact of BASEL III norms on profitability of banks.

TOP 5 PUBLIC SECTOR BANKS ON THE BASIS OF THEIR MARKET CAPITALIZATION AS ON DECEMBER 1st 2019
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Company Name	Last Price	% Chg	Gross	Net	C WIP	Total
			Block	Block		Assets
SBI	316.35	1.17	38,508.94	38,508.94	688.63	3,046,499.14
PNB	60.25	1.09	0	0	0	651,795.99
Bank of Baroda	96.35	0.73	6,990.30	6,990.30	0	633,993.82
Canara Bank	215.5	1.32	8,410.23	8,410.23	0	570,558.91
Bank of India	68.55	0.88	8,920.04	8,920.04	0	483,764.84

For calculating profitability two parameters namely Return on Assets and Return on equity were taken into consideration for the year 2006-2019

Part 1- Return on Assets

RETURN ON ASSETS

Year	SBI	PNB	BOB	CANARA	BOI
2019	0.02	-1.28	0.05	0.04	-0.88
2018	-0.18	-1.6	-0.33	-0.68	-0.99
2017	0.38	0.18	0.19	0.19	-0.24
2016	0.42	-0.59	-0.8	-0.5	-0.99
2015	0.63	0.5	0.47	0.49	0.27
2014	0.6	0.6	0.68	0.49	0.47
2013	0.9	0.99	0.81	0.69	0.6
2012	0.87	1.06	1.11	0.87	0.69
2011	0.6	1.17	1.18	1.19	0.7
2010	0.87	1.31	1.09	1.14	0.63
2009	0.94	1.25	0.97	0.94	1.33
2008	0.93	1.02	0.79	0.86	1.12

2007	0.8	0.94	0.71	0.85	0.79
2006	0.89	0.99	0.72	1.01	0.62

Average return before and after the implementation of BASEL III norms as on April 01, 2013

	2006-12	2013-2019	DIFF
SBI	0.84	0.40	0.45
PNB	1.11	-0.17	1.28
BOB	0.91	0.15	0.76
CANARA	0.98	0.10	0.88
BOI	0.78	-0.25	1.03
average difference			0.88

Calculation of Paired T test (Two Sample for Means)

t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	0.924071429	0.045714286
Variance	0.016128753	0.068172449
Observations	5	5
Pearson Correlation	-0.173190142	
Hypothesized Mean Difference	0	
df	4	
t Stat	6.346043477	
P(T<=t) one-tail	0.001579176	
t Critical one-tail	2.131846782	
P(T<=t) two-tail	0.003158352	
t Critical two-tail	2.776445105	

Descriptive Statistics	
	Column1
Mean	0.878357143
Standard Error	0.138410199
Median	0.879642857

Mode	#N/A
Standard Deviation	0.309494615
Sample Variance	0.095786916
Kurtosis	0.276409016
Skewness	-0.207861158
Range	0.830535714
Minimum	0.447142857
Maximum	1.277678571
Sum	4.391785714
Count	5
Confidence Level(95.0%)	0.384288321

Inference- Since P value is smaller than T value which indicates that there is a significant impact of BASEL III norms on profitability of Banks and hence our H0 stands rejected.

Part – 2 Return on Equity

RETURN ON EQUITY					
Year	SBI	PNB	BOB	CANARA	BOI
2019	0.39	-24.2	0.94	1.16	-13.3
2018	-3.37	-32.85	-5.6	-14.51	-20.15
2017	6.69	3.47	3.43	3.96	-5.06
2016	6.89	-11.2	-13.42	-10.75	-19.63
2015	10.2	8.12	8.53	10.21	5.43
2014	9.2	9.69	12.61	10.1	9.12
2013	14.26	15.19	14.01	12.57	11.49
2012	13.94	18.52	18.22	15.91	13.57
2011	11.34	22.12	20.15	22.43	15.58
2010	13.89	24.06	20.24	24.09	13.6
2009	15.74	23.52	17.35	20.64	25.51
2008	13.72	19	12.99	18.86	22.76
2007	14.5	15.18	11.86	17.51	19.54
2006	15.94	15.86	10.54	19.13	14.53
2005	17.88	17.96	12.02	18.51	7.9

Average return before and after the implementation of BASEL III norms as on April 01, 2013

	2006-12	2013-2019	DIFF
SBI	14.15	6.32	7.83
PNB	19.75	-4.54	24.29
BOB	15.91	2.93	12.98
CANARA	19.80	1.82	17.98
BOI	17.87	-4.59	22.46

Calculation of Paired T test (Two Sample for Means)

t-Test: Paired Two Sample for Means		
	Variable1	Variable 2
Mean	17.49542857	0.389142857
Variance	6.054147347	23.18766694
Observations	5	5
Pearson Correlation	-0.708107625	
Hypothesized Mean Difference	0	
df	4	
t Stat	5.638456757	
P(T<=t) one-tail	0.002434937	
t Critical one-tail	2.131846782	
P(T<=t) two-tail	0.004869873	
t Critical two-tail	2.776445105	

Descriptive Statistics	
	Column1
Mean	17.10628571
Standard Error	3.033859521
Median	17.97571429
Mode	#N/A
Standard Deviation	6.783916123
Sample Variance	46.02151796
Kurtosis	-1.401998816
Skewness	-0.45892082
Range	16.46142857

Minimum	7.83
Maximum	24.29142857
Sum	85.53142857
Count	5

Inference- Since, P value is smaller than T value which indicates that there is a significant impact of BASEL III norms on profitability of Banks and hence our H0 stands rejected.

Findings

Inference - Since P(0.003158352) value is smaller than T value (6.346043477) which indicates that there is a significant impact of BASEL III norms on **Return on Assets** and hence our H0(a) stands rejected.

Inference- Since P value (0.004869873) is smaller than T value (5.638456757) which indicates that there is a significant impact of BASEL III norms on **Return on Equity** and hence our H0(b) stands rejected

Conclusion

There is a significant impact of BASEL III norms on Return on Assets and Return on Equity and hence the profitability of Banks.

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