

# “IMPACT OF INFLATION ON BANK’S PROFITABILITY” A STUDY ON SELECT BANKS PROFITABILITY

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## ABSTRACT

*The banking sector of India consists of 26 public sector banks, 20 private banks and 43 foreign banks. The banking sector is merely contributing about 7.7% to India’s GDP. Banking sector has generated employment in the economy for about 1.5 million people. The study focuses on the impact of Inflation on Banks profitability. To evaluate the bank’s profitability some of the determinants like Return on assets, Return on Equity and Net profit is considered. Wholesale price index average has been taken to evaluate the Impact of inflation on banks profitability. Also, there are many external factors that impacts profitability such as GDP, asset management, NPAs, capital adequacy, liquidity ratio. For the study five Public sector banks has been considered i.e. State Bank of India, IDBI Bank, Allahabad Bank, Canara Bank, Punjab National Bank for the year 2014 to 2018. From the study it can be concluded that there is negative correlation between inflation and banks profitability which means that if one variable increases other variable decreases. When inflation raises interest rates also raises. Increase in interest rates provide greater opportunity for banks to increase their profits. Meanwhile their cost of funds also increases which can reduce profits. From the study, it can be determined that  $H_0$  is accepted and alternative is rejected which means Inflation has no effect on Return on Assets(ROA), Return on Equity (ROE) and Net profit of select public sector banks. Inflation does not affect the profitability of banks. There are several other internal as well as external factors that may affect the profitability of bank. Hence there is no significant association between Inflation and Banks profitability of select public sector banks in India.*

**KEY WORDS:** *Inflation, Wholesale price index, profitability ratios, public sector banks.*

## INTRODUCTION

A bank is a financial institution licensed to receive deposits and make loans. Banks may also provide financial services, such as wealth management, currency exchange and safe deposit boxes. A banking system also referred as a system provided by the bank which offers cash management services for customers, reporting the transactions of their accounts and portfolios, throughout the day. Indian Banking industry can be categorized into two ‘commercial-banking’ and ‘investment-banking’. Commercial banks play key role in the Indian Financial system by mobilizing savings from public and making these funds available for investments. Banks are offering several services to their customers such as collecting deposits, providing

different types of loans and also additional services like credit payment, core banking, internet and mobile banking, also offers investment and insurance products.

This study is designed to empirically examine the relationship between inflation and banks' profitability and how the outcome influences the lending decision of such banks. The most commonly performance measure used by banks is profitability ratio. It is all about how inflation affects profit levels and how profit level influences the investment decision of banks' lending. Factors used to measure the performance of banking sector are known as key performance indicators, i.e. profitability, return on assets (ROA), return on equity (ROE), net interest margin, liquidity, etc. An emerging theoretical literature tries to explain the relationship between increase in the inflation rate and its effect on the effective resource allocation of banking sector.

## STATEMENT OF PROBLEM

Inflation raises interest rates. Higher interest rates provide more opportunity for banks to generate profits. At the same time, their costs of funds also go up which reduces profits. The important aspect is to keep both in balance. Hence it is important to study the impact of inflation on ROA, ROE & Net profit to know the profitability of the banks.

## LITERATURE REVIEW

Mohammed Umar<sup>1</sup>, Danjuma Maijama'a, Mohammad Adamu(2014). This paper is to conceptually expose the effect of inflation on bank performance. To accomplish this objective, the paper reviews some theoretical and empirical works on the effect of inflation on financial sector performance.

Samnia Siddique (2014). The paper is to examine overall Inflationary tendencies that have great influence on the performance of the large banking segment of Pakistan. This study is focused to verify the impact of inflationary trends on the top-rated banks in Pakistan and return on assets (ROA), return on equity (ROE) and net interest margin as key performance indicators of banking sectors are selected as variable.

Felicia Omowunmi Olokoyo (2011). This paper examines the factors of commercial banks' lending behavior in the Nigerian context. The study meant to examine and confirm the effectiveness of the common determinants of commercial banks' lending behavior and how it affects the lending behavior of commercial banks in Nigeria.

Muhammad Jawad Ishfaq (2015) The study investigates the impact of internal and external factor and macroeconomic variables on profitability on commercial banks of Pakistan. Dependent data analysis confirms that the bank size, capitalization, labor productivity, concentration and inflation were significant impact on the bank profitability in Pakistan.

Yong Aaron Tan (2012) the purpose of this paper is to assess the factors of bank profitability in China. It also studies the effects of inflation on bank's profitability, while including bank-specific and industry-specific variables.

Abdul Sattar (2014) the research objective of this project is to analyze, the influence of interest rates changes on the profitability of commercial banks being operated in Pakistan and also by examining the financial statements of four major banks during 2008 to 2012.

## **OBJECTIVES**

- To evaluate the determinants of public sector banks profitability
- To determine the effect of inflation on bank's profitability (Return on assets, Return on Equity, Net profit Ratio).

## **SCOPE OF STUDY**

For the study five public sector banks- State Bank of India, Allahabad bank, IDBI Bank, Canara bank, Punjab National Bank has been considered. For the analysis 2014 to 2018 data has been considered.

## **HYPOTHESIS**

HO: There is no significant association between inflation and public banks profitability.

H1: There is a significant association between inflation and public banks profitability.

## **METHODOLOGY**

Research Method: Applied research.

Research Design: Descriptive study

Data Collection: Secondary data

Data sources: RBI, Capital line database, company website.

## **PLAN OF ANALYSIS**

For analysis of Inflation - Wholesale Price Index and profitability ratios like ROE, ROA and Net Profit has been considered.

TOOL FOR TESTING: Correlation

ANOVA is employed

Profitability: dependent variable; Inflation: independent variable.

## LIMITATIONS OF THE STUDY

- The study has been conducted only for 5 years.
- The study is based on the data of 5 companies only.
- No primary data has been used.

## DATA ANALYSIS RESULTS & DISCUSSION

The Correlation and ANNOVA is used to determine whether there is a significant association between the inflation and banks profitability of select public sector banks. If the null hypothesis is accepted than there is no significant association between inflation and banks profitability and if null is rejected there is a significant association between inflation and banks profitability.

### RESULTS

SBI			
	ROA	ROE	NET PROFIT
INFLATION	0.34 [not significant]	0.34 [not significant]	0.36 [not significant]
IDBI			
	ROA	ROE	NETPROFIT
INFLATION	0.76 [not significant]	0.73 [not significant]	0.70 [not significant]
CANARA BANK			
	ROA	ROE	NET PROFIT
INFLATION	0.51 [not significant]	0.51 [not significant]	0.50 [not significant]
ALLAHABAD BANK			
	ROA	ROE	NET PROFIT
INFLATION	0.49 [not significant]	0.16 [not significant]	0.49 [not significant]
PUNJAB NATIONAL BANK			
	ROA	ROE	NET PROFIT
INFLATION	0.33 [not significant]	0.31 [not significant]	0.33 [not significant]

## INTERPRETATION:

Since calculated p-value is greater than the significance level ((0.05) in all aspects. Hence, we accept the null hypothesis. And conclude that there is a significant association between inflation and banks profitability.

## FINDINGS

- The Return on Assets (State Bank of India) had decreased from 2014 to 2018. Return on Equity was positive from 2014 to 2017 and became negative in 2018.
- The net profit ratio (State Bank of India) was positive in the year 2014 to 2017 but became negative(losses) in the year 2018.
- The highest Wholesale Price Index was in the year 2018 and the lowest (negative) in the year 2015.
- The highest returns of State bank of India were in the year 2015 and the lowest in the year 2018.
- The Return on Assets, Return on Equity of IDBI Bank was positive in the year 2014 and 2016 but became negative in the year 2015, 2017 and 2018.
- The Net profit of IDBI Bank was positive in the year 2014 and 2016 but became negative in the year 2015, 2017 and 2018.
- The highest returns of IDBI Bank were in the year 2014 and the lowest in the year 2017.
- The Return on Assets, Return on Equity and Net profit of Canara Bank was positive in the year 2014, 2015, 2017 and became negative in the year 2016 and 2018.
- The highest returns of Canara Bank were in the year 2014 and 2015 and the lowest returns were in the year 2018.
- The Return on Assets, Return on Equity and Net profit of Punjab National Bank in the year 2014 to 2015 but became negative in the year 2016 to 2018.
- The highest return was in the year 2014 and lowest (negative) return in the year 2018.
- The return on assets, return on equity and net profit of Allahabad Bank was positive in th year 204 to 2015 but became negative in the year 2016 to 2018.
- The highest return was in the year 2014 and the lowest (negative) in the year 2018.
- The current study tries to examine the relationship between the inflation rate and profitability returns of the select public sector banks.
- The correlation between Inflation and Return on Equity (State Bank of India) is -0.54 and is found to be not significant.
- The correlation between Inflation and Return on Assets (State Bank of India) is -0.53 and is found to be not significant.
- The correlation between Inflation and Net profit (State Bank of India) is -0.52 and is found to be not significant.

- The correlation between Inflation and Return on Assets (IDBI Bank) is -0.81 and is found to be not significant.
- The correlation between the Inflation and Return on Equity (IDBI Bank) is -0.20 and is found to be not significant.
- The correlation between the Inflation and Net profit (IDBI Bank) is -0.23 and is found to be not significant.
- The correlation between the Inflation and Return on Assets (Allahabad Bank) is -0.40 and is found to be not significant.
- The correlation between the Inflation and Return on Equity (Allahabad Bank) is -0.72 and is found to be not significant.
- The correlation between the Inflation and Net profit (Allahabad Bank) is -0.41 and is found to be not significant.
- The correlation between the Inflation and Return on Assets (Canara Bank) is -0.39 and is found to be not significant.
- The correlation between the Inflation and Return on Equity (Canara Bank) is -0.39 and is found to be not significant.
- The correlation between the Inflation and Net profit (Canara Bank) is -0.39 and is found to be not significant.
- The correlation between the Inflation and Return on Assets (Punjab National Bank) is -0.55 and is found to be not significant.
- The correlation between the Inflation and Return on Equity (Punjab National Bank) is -0.50 and is found to be not significant.
- The correlation between the Inflation and Net profit (Punjab National Bank) is -0.55 and is found to be not significant.

## CONCLUSION

As per the study it can be concluded that inflation has no significant effect on ROA, ROE and Net profit of select public sector banks. Inflation does not affect the bank's profitability because there are other major factors like GDP, interest rates, NPAs, forex, investments as well as internal banks variables that may affect the profitability of banks. The research shows that there is a negative correlation between inflation and ROA, ROE and net profits of select public sector banks. The first objective was to evaluate the determinants of public sector banks profitability i.e. ROA, ROE and Net profit. The ROA was positive from 2014 to 2017 and became negative in 2018. Similarly, ROE was positive from 2014 to 2017 but became negative in 2018 which means they were in losses with respect to SBI. So, as per the evaluation it was found that there is a negative correlation between inflation and bank profitability ratios which means that if one increases other

decreases. The second objective was to determine the effect of inflation on banks' profitability of select public sector bank and it can be concluded that  $H_0$  is accepted, i.e., inflation has no effect on banks profitability. Hence there is no significant association between inflation and banks profitability for the year 2014 to 2018. As there are many other internal as well as external factors which impacts the profitability of banks.

## SUGGETIONS

- Profitability of banks also depend on several internal factors as well therefore it is important for all the banks to take care of activity like asset management, liquidity, capital adequacy, operational cost efficiency and income diversification etc. for profitability.
- Profitability of banks can be increased by increasing the asset base of banks, increasing the size of the banks and the deposits.
- Banks should invest in portfolio by which they can minimize their risk. They can also invest in government bonds and other such shares apart from normal investment they usually do so that even though there is economic imbalance they can make sure that some fixed return is available.

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