# IMPACT ON PROFITABILITY OF BANKS DUE TO MONETARY POLICY: AN EMPIRICAL STUDY 

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#### Abstract

Various agencies or financial industry players provides a variety of financial services. These organisations can be of varied nature such as financial consultant, financial institution, investment advisor, mutual funds, investment broking companies, stock brokers, insurance advisors, and others. Since people use to invest their funds through all these organisations, hence the stake of public at large is on risk. Therefore a strong control mechanism is required to be implemented for the safety and security of public investment and for the protection of the customers. The recent trend of the frauds in the financial sector has made it necessity that a prudential and customized system of banking is required for the sustainable growth of the economy and the perfect health of financial structure of the country. The apex Bank of any country (also known as Central Bank) is the majorly responsible for the financial stability of any country, through the management of the financial structure and money \& Credit creation using the effective monetary policy in the country. India in this regard doing a fantastic job by following the BASEL II since 2009. This makes the Indian banking system at global level. The Central Bank is solely responsible for the entire financial health of the country. Bank profit is undoubtedly plays a significant role in the economy at both levels, i.e. at micro level as well as macro level. The reason being at micro level, profitability is require for the successful operation of the banking business and facing the perfect competition in the banking industry. Whereas at the macro level, a sound and strong system of Banking gives a shocker to absorb the negative shocks in economy and helps in making it stable and comfortable. This research is undertaken with the view to make a detailed analysis of the impact of the monetary policy in the profitability of the banking sector in India. The financial sector is undoubtedly majorly controlled by the Banking Sector. The major domination of the banking sector is observed in financial structure of any country. The Indian Banking system is under the close supervision and control of regulator's. This research mainly focuses that whether the monetary policy will be able to regulate the inflation or recession in the country based on the fact that how monetary policy has reacted in the past in the down and up periods of the economy, which has impacted the profitability of the banks. The research results concludes that there has been found a significant impact of the change in monetary policy on the profitability, Interest and the inflation in the commercial Banks, except the fact that commercial banks have a greater flexibility to adjust themselves in case central bank tighten the monetary policy. The adjust their lending and deposit interest rates to reduce the impact of the change on their profitability which results due to hike in rates.


KEYWORDS: Profitability, Monetary, Basel, Performance, Flexibility, Competition, Banking, Regulator.

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## Introduction

Monetary policy of any country regulates the performance in the form of control of various sub factors of the economy such as inflation or employment. With the view to control as well as to promote the economic growth \& stability, it regulates the supply of the money through the modes of the control of the interest rates. This is because the monetary policy is directly having a relationship with interest rates and economy of the country. This relationship is quite easy to understand as the cost which we bear to borrow the funds from the banking system is conversely makes the supply of the money into the economy. Apart from all this, the central Bank is responsible for the marinating payments of exports and imports and thus to regulate the foreign exchange in India. The monetary policy has both short run as well as long run impacts. In the short run impacts are on the financial market, on the other hand the real sector is impacted by the long run implications. Implementation of monetary policy is possible by specific strategy and some tactics.

A coordination of both is important. The Strategy seeks to achieve the main objective of the monetary policy, whereas tactics are required to achieve the operational procedure consideration. Inflation targets are featured by an external goal (say final Goal) in form of inflation rate. Other intermediate factor such as secondary variables like exchange rates or monetary aggregates are not controlled or managed by Central Bank. At the same time there need to be a constant relationship between operating objectives and intermediate targets. Operating target refers the intention of the policy for the public and the way it will flow to public i.e. to say the transmission of the monetary policy. Though the RBI has reserve the right to control or rather we should say influence the operating targets such as SLR or CRR, or benchmark interest rates, however the market forces are the ultimate factors that control the final decision with the RBI influence. This Research has undertaken with the intention to show how monetary policy is used to manage the inflation on CPI and profitability of the Banks both public as well private. We will also discuss the significance of any change which occurs in monetary policy and its impact on profitability of the banks.

## Financial Sector Reforms

The Reserve Bank of India is the prime authority in our country that has been held with the responsibility and authority to control the flow of the credit into the market and maintaining the price stability in the country, with the effective design, implementation and operation of the monetary policy in the country. Any country's banking and financial system is based on the banking system or banking operational parameters. The banking objective of any country could rang wide including to deposit the money in the bank with object to channelize the savings by an individual, to generate the credit for the purpose of the financing the business, to start a new business with the help of the finance from the bank or to invest into the property with the loan from the bank etc.

Hence it becomes very important that public have confidence that their interest in the bank is safe. For ensure such confidence, the guidelines are quite important to implement in banking structure. Before the liberalization and pre reform period in 1991, there were limited tools available in the banking for control and neutralize the impact of the budgetary impact of the government, such as selective credit control, interest rate regulations and CRR.

The interest rate regime use to kept the return rate of the government securities as low. There was a phenomenal policy of making the SLR as high to generate the demand in the market for the government securities. After the reforms come in the market, the demand for the government securities, the investment needs in the government securities and other financial instrument became market driven. Interest rate rationalization, has given coincidently provided the banks a level of freedom to set out their own rates. To manage short term volatility in the Foreign Exchange Market open market operations became one of the effective tools after the reform period.

In early 1997, Bank rates were reactivated and concept of fixed repo rate, a mechanism was set up, where the repo rate as the floor rate and Bank rates as the ceiling rate been fixed for the money market. At the same pace in 2000, the liquidity Adjustment facility has been introduced which made it easy to make modulation of liquidity position and interest rates on the day to day basis, with the signaling the change required in the policy with the changes in the bank rate.

The financial sector reforms has set the wave of the major changes or reforms with the aim of removing the obstacles on profitability of the Banks, for making improvements in the financial health structure of the banking system. This becomes possible with the adequate prudential norms, and
making the financial system competitive. The Indian financial market started moving towards nonregulated from regulated regime. The impacts were observed on the investments and monetary management.

## Review of Litreature

Chari, et al. (1995) has made an investigation into inflation and output, in the data and in all the available standard models, empirical studies in the different countries, finds a non linear and negative relationship as between inflation and output. The standard models due to their narrow assumptions do not effectively shows or reproduce the relationship between inflation and output. He also stated in this study that as compare to any other measure, banking and financial regulations are perhaps the enough measures to find out the impact of monetary policy on sustainable growth.

A study by Valentina Flamini, et al. (2009) has shown profitability of the banks in Sub Saharan Africa, and observed that it is higher in SSA as compare to other regions. A sample of around 390 banks has been taken and it was observed that higher return on assets is impacted by various factors such as size of the banks, their diversified activities, and their nature of ownership. Banks returns are also impacted by various macroeconomic variables such as policies which promote the low inflation and consistent output growth to expand credit creation. The results also show moderate or average consistency in profitability. Their research paper has supported a plan to apply the larger capital needs in the area for strengthen the financial consistency.

Abu Sayeed and Mohammad Ziaul Hoque (n.d.) made a comparative analysis between various private and public sector banks of the Bangladesh. They concentrated on their study with the focus on Assets and Liability Management and reached at conclusion that the private sector banks are much better than public sector banks in management of the assets as well as in management of the liabilities.

Study conducted by Punita Rao (2006, p.1), the financial and macroeconomic situations in India were observed to quite effective with the expectations on monetary policy. However at the same time a need for the improvement in the reforms for the financial sector with a continuous observation on internal as well as external conditions by central bank is required. Monetary policy of any country helps and supports the availability of liquidity to support the credit growth and demand for the investment in economy with a safe watch on price level fluctuations.

## Research Methodology

This study is based on data from 2011 to 2020 on the concerned various large economic variables. All data is gathered from the RBI portal and Business Beacon database. The selection of variables are used on the ground that they signifies the importance of the quantum as well as interest rate channel. CRR and SLR show the quantity variable on the other hand other variables shows interest rate articles. For the selected variables we have used the simple logarithmic transformation of data on all variables. Log transformation is quite useful in making the exponential growth of a time series and to make consistency in the variability. One of the widely and strong transformations is to make the log values for data because logarithms 'comprise' the expansion of data, which can be used easily in plotting rank-size relationships. For example a milder transformation can be applied is the used for both square roots and square values.

## Results and Analysis

The impact of monetary variables on the interest profitability of private sector bank (ICICI): We have selected ICICI bank as a representative of the private sector banks in India. This selection is done considering the fact that ICICI is the largest private sector bank in India as well as the second largest bank of India after SBI. In the case of private sector bank, it is evident from the regression coefficients that CRR, BR, SLR, PLR and Repo are material and inversely related to the profitability of the banks. Coefficient of DR and RR are irrelevant in this case. If the above monetary variables have material impression on $\mathrm{PRO}_{\mathrm{t}}$, then it can be said that interest profitability of private sector banks is greatly impacted by the change in monetary policy. The results from the seven regressions are summarized below:

Table 1: Impact of Monetary Variables on ICICI BANK

| Variables | Coefficients | Probability |  |
| :---: | :---: | :---: | :---: |
| C | 4.351416 | 0.0401 |  |
| CRR | -4.98582 | $\mathbf{0 . 0 3 5 1}$ |  |
| BR | -3.15465 | $\mathbf{0 . 0 1 9 8}$ |  |
| DR | 6.051356 | 0.4151 |  |
| PLR | -6.12533 | $\mathbf{0 . 0 4 3}$ |  |
| REPO | -5.457841 | $\mathbf{0 . 0 1 0 6}$ |  |
| RR | 6.952752 | $\mathbf{0 . 0 0 0 0}$ |  |
| R Square | 3.951231 | $\mathbf{0 . 0 1 0 3}$ |  |
| Adjusted R Square | 0.715436 |  |  |

The impact of monetary variables on the interest profitability of public sector bank (SBI): We have selected SBI as a representative of the public sector banks in India. This selection is done considering the fact that SBI is the largest bank in India. The regression coefficients of CRR, BR, Reverse Repo and PLR are material; they are inversely related to the profitability of the banks. At the same time coefficients of DR and RR are not material in this case. If the following monetary variables have significant impact on $\mathrm{PRO}_{\mathrm{t}}$, then it can be observed that interest profitability of public sector banks changes with the change in monetary policy. To find out the impact of monetary variables on PRO $t$, the regression equation is estimated.

| Variables | Coefficients | Probability |
| :---: | :---: | :---: |
| C | 5.20539 | 0.0012 |
| CRR | -0.00115 | $\mathbf{0 . 0 3 2 5}$ |
| BR | -2.221 | $\mathbf{0 . 0 3 4 8}$ |
| DR | 0.682418 | 0.1947 |
| PLR | -2.48571 | $\mathbf{0 . 0 1 0 7}$ |
| PLR | -2.38953 | $\mathbf{0 . 0 0 0 3}$ |
| REPO | -3.61991 | $\mathbf{0 . 0 0 0 1}$ |
| RR | 5.20539 | 0.1132 |
| R Square | 0.9 |  |
| Adjusted R Square | 0.802972 |  |

Monetary variables undoubtedly have material effect on the inflation in the economy. Except DR, PLR and RR, the regression coefficients of most of the independent variables, found to be significant, statistically. R square and adjusted R square gives a sign that the credit control policies are important to handle the inflation or deflation forces in the economy. The central bank ups the CRR to increase the cash balance and make reduction in the loan funds which are available in the banks. To make it costly for commercial banks to raise funds from central bank, an increase in repo rate and Bank rates is done.

## Recommendations and Suggestions

The Following are some of the Key Recommendations which are required for policy determination which has been derived from the study.

It is observed that 91 day Treasury bill mechanism is not significant as the rate of Treasury bill for 90 days period is not influencing the profitability of the Banks, and hence the Reserve Bank of India, shall conduct regular studies to mark out the other possible market rates which may be effective in transforming the monetary policy.

The Observation from the fact that changes in the interest Rates affects the profitability materially; suggest that to have a sustainable development of the consistent Banking Sector, the Reserve Bank of India shall ensure that monetary policy transformation is effective in accordance with some macro level economic conditions. There is also a simultaneous need of Reserve Bank of

India to monitor the micro components of Individual banks behaviour and to make a regular assessment as well as enhance the efficacy of the interest rate which pass through the lending channel of monetary policy transformation. This will surely make some improvement in the availability of credit for companies as well as private investments which ultimately will result in increase in profitability of Banks.

Since increasing inflation undoubtedly creates a barrier on generating the profitability and hence to ensure as well to maintain a consistent financial stability in Indian Banking System, the Reserve Bank of India shall strive to achieve and maintain a lower level of inflations using some monetary and fiscal policy measures.

## Limitations of Study

We have notices that the overall impact of monetary policy on profitability of bank profits undoubtedly depend on the efficacy of monetary policy individual or micro components of economy. To be specific, it might crucially hinge on the efficiency of monetary policy in robust aggregate demand. Assessing this relationship is perhaps beyond the scope of this study. In addition to above, this study considers only Banks and ignores the other financial institutions and other micro level financiers.

## Conclusion

The financial instability and the world wide recession which begun in 2008 had impacted the profitability and turnover of the business of all nature throughout the world. However, the Indian Banking system at the same time was strongly standing on their financial basics, strict guidelines on monetary system as well as observant risk adjustment attitude. Monetary tools were capable enough to adjust the effect of worldwide recession through the use of such tools. Because of such strong response, the Indian economy was not greatly impacted by the adverse impact of global financial crisis. Even it responded to positively to safeguard the Indian Economy by accommodating policy structure and liquidity to most productive sectors of the country, in the form of reduction in CRR, SLR and repo rate. RBI also felt that our monetary policy was consistent with the kind of crisis we were facing, as compare to monetary policy of other countries specially of fast recovering economies and such policy would be best fitted for inflation problems. In the recent time, the increased pressure of inflation has exhausted pressure on the monetary policy to make an alignment with the increased or growing phase of country economy. In April 2010, RBI increased CRR by 25 basis points up to 6 percent from 5.75 , as result of which 12,500 crore absorbed from the market which are in form of excess liquidity, from the system. Since March 2010, up to now, key policy rates, Repo and Reverse Repo have been increased around 8 times in a year. CRR however still not changed drastically. The results as concluded from the study show that interest profitability of commercial banks is greatly impacted by the policy changes. The public sector banks however have enough flexibility to make proper adjustments in their lending rates and deposit interest rates to cut down the negative impact on their profitability due to increased monetary policy. The Central Bank continuously observe the macroeconomic conditions, as well as the varied price levels to ensure that adequate liquidity position is maintained to achieve the credit creation and provides the demand for investments in the economy. The central Banks efforts to the better monetary policy stand to retrieve the desired output from the economy.

## Scope for Further Research

As we said that study considers only Banks and hence the results from the study may not be as useful as in case of banks in assessing the relationship ship between monetary policy and Impact on profitability in other financial institutions such as government pension funds. If we look into other money market rates the study might have been yield different results. Future studies in the same arena could also extend in making analysis the effect of interest rate increases on banks as well as other financial institutions such as pension funds and other microfinance institutions.

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