Accountancy Business and the Public Interest
ISSN: 1745-7718

Volume: 41
Issue Number: 05

THE IMPACT OF MONETARY POLICY RATES ON THE PRICES OF INDIAN STOCKS: EMPHASIS ON BANKS' NIFTY INDEX IN PARTICULAR

Dr. NIKHIL BELAVADI[1]*, SRINIVAS KULKARNI[2] and
Dr. KRUNAL PUROHIT[3]

[1]Assistant Professor, Finance & Accounting, School of Business,
Woxsen University, Kamkole, Sangareddy, Telangana, India.
*Corresponding Author E-Mail: nikhil.belavadi@woxsen.edu.in, ORCID: 0000-0003-1700-5345
[2]Research Scholar, School of Business, Woxsen University,
Sangareddy, Telangana, India. Email: srinivaskulkarni1995@gmail.com
[3]Assistant Professor, School of Business, Woxsen University,
Sangareddy, Telangana, India. Email: krunal.purohit@woxsen.edu.in

Abstract

This study explores the relationship between monetary policy instruments and stock market performance in India, with a specific focus on the Bank Nifty Index. As monetary policy significantly influences macroeconomic conditions, interest rates, and credit availability, its transmission to financial markets, particularly the banking sector, warrants careful examination. The Bank Nifty Index, comprising leading listed banking institutions, reflects sectoral responses to policy shifts and serves as an effective proxy for studying monetary influences. The research utilizes a comprehensive dataset covering key monetary policy rates, including the repo rate, reverse repo rate, cash reserve ratio (CRR), statutory liquidity ratio (SLR), marginal standing facility (MSF), and bank rate, along with historical Bank Nifty index data. Through the application of statistical and econometric techniques, the study analyses the extent of causality and correlation between policy changes and banking stock price movements. The findings reveal a significant yet varied impact of different monetary tools on the banking index, suggesting that investors respond sensitively to policy signals. The results underscore the countercyclical nature of monetary interventions and their implications for financial market stability. This research contributes to a deeper understanding of the monetary policy-stock market nexus in the Indian context, supplementing existing literature on emerging markets. The insights derived are valuable for policymakers, investors, and financial institutions in making informed decisions, managing risks, and refining investment and policy strategies in response to evolving monetary conditions.

Keywords: Monetary Policy Rates; Macroeconomics; Commercial Banks; NSE; Banks Nifty Index.

JEL Classification: E52; E58; E60; G10; G210.

INTRODUCTION

Monetary policy is a critical macroeconomic tool employed by a country's central bank to regulate the supply, availability, and cost of money and credit in the economy. Through a strategic combination of interest rate changes, liquidity measures, and reserve requirements, the central bank influences inflation, consumption, investment, and overall economic growth. In India, the Reserve Bank of India (RBI) plays this pivotal role by adjusting policy instruments to maintain price stability while fostering conditions for sustainable economic development.

The primary objectives of monetary policy include maintaining price stability, ensuring adequate credit flow to productive sectors, managing inflation expectations, supporting financial market stability, and facilitating broad-based economic growth. These goals are pursued through influencing aggregate demand and credit conditions using a set of tools such as the repo rate, reverse repo rate, cash reserve ratio (CRR), statutory liquidity ratio (SLR), and open market operations (OMO).

The transmission of monetary policy impacts various macroeconomic variables through several channels, namely the interest rate channel, exchange rate channel, credit/quantum channel, and asset price channel. For instance, when interest rates are increased, the cost of capital rises, reducing consumer spending and business investments. Similarly, appreciation in the domestic currency can make exports less competitive, impacting output and employment levels. In parallel, asset prices, including equity and real estate, respond to interest rate changes, influencing household wealth and corporate balance sheets.

In the context of the Indian financial markets, the banking sector, represented by the Nifty Bank Index, plays a crucial role. As a sector highly sensitive to interest rate fluctuations, changes in monetary policy can have direct and measurable impacts on the stock prices of banking firms. The Bank Nifty index, which comprises India's leading publicly listed banks, serves as a proxy for understanding how monetary policy decisions are transmitted through the financial sector into equity markets.

This study focuses on analysing the relationship between key monetary policy rates and the performance of Indian banking stocks as captured by the Nifty Bank Index. It explores the effectiveness of monetary policy transmission and investigates which specific tools have the most significant influence on banking equity prices. By doing so, the research aims to contribute to a deeper understanding of monetary policy's role in shaping financial market outcomes, particularly within the banking sector, over the period from April 2019 to March 2024, a timeframe that includes significant monetary shifts due to the COVID-19 pandemic and post-pandemic recovery.

REVIEW OF LITERATURE

The relationship between monetary policy and stock market performance, especially in the banking sector has been a central theme in financial research. Monetary policy, as a macroeconomic tool, plays a crucial role in stabilizing inflation, regulating liquidity, and steering economic growth. The banking sector, due to its high leverage and dependence on interest spreads, remains particularly sensitive to changes in key policy rates such as the repo rate, reverse repo rate, CRR, SLR, and MSF.

Bernanke and Kuttner (2005) found that changes in the federal funds rate have a significant impact on equity prices, particularly within financial firms, due to their interest-sensitive earnings. Similarly, **Kashyap and Stein (2000)** elaborated on the bank lending channel of monetary transmission, explaining how policy-induced changes in interest rates affect banks' ability to lend, influencing market valuation.

In the Indian context, **Bhattacharya and Sensarma (2007)** revealed that private sector banks are more sensitive to interest rate fluctuations compared to public sector banks, highlighting differential transmission mechanisms across ownership structures. **Agarwal (2013)** emphasized that policy rates directly influence the cost of funds and profitability, impacting stock performance and capital market valuations.

Complementing these studies, **Kaur and Kapoor (2017)** examined the reaction of sectoral indices, especially the Nifty Bank index, to monetary announcements and confirmed that the banking sector responds more rapidly and significantly than broader market indices like Nifty 50. **Verma and Kumari (2020)** further noted that the sensitivity of Bank Nifty stems from its exposure to credit, liquidity, and regulatory measures, making it a potent gauge for studying monetary transmission through capital markets.

Adding a macroeconomic perspective, **Saha (2017)** argued that monetary policies in India, particularly those targeting inflation, have helped anchor investor sentiment and reduce volatility in the post-Euro crisis period. His work highlighted how interest rates, foreign institutional investor (FII) flows, and RBI's actions jointly shape the stock market's trajectory. Similarly, **Sachdeva (n.d.)** examined India's structural transition post 1991 liberalization and found that while inward consumption and savings have historically cushioned external shocks (e.g., in 2008), external monetary linkages have grown, increasing domestic vulnerability to global policy shifts.

Expanding on credit-market linkages, **Pandit (2011)** analysed seven emerging economies, including India, and found that interest rate changes significantly affect the demand for bank credit, thus impacting the financial cycle. His study confirmed that monetary policy is an effective countercyclical tool, with substantial implications for banking behaviour and equity market signals.

From a capital structure standpoint, it has been argued that monetary tightening can influence the preference between equity financing and bank credit. While there may be short-term substitution, both sources serve distinct purposes in funding corporate investment **(Kerongo Maatwa Meshack, 2016).** A descriptive study of Kenyan commercial banks listed on the Nairobi Stock Exchange also supports this view, revealing that central bank rates and CRR are negatively correlated with financial performance, while OMO rates show a positive correlation.

Chavannavar (2016), focusing on Indian markets, concluded that monetary policy impacts on Nifty 50 and sectoral indices are moderate in the short run, but become more pronounced over longer horizons. This finding supports the notion that policy transmission is not instantaneous and can exhibit lag effects, especially in equity markets. On a global scale, **Ioannidis (2008)** and **Konrad (2009)** showed that monetary policy shocks in the U.S. and Eurozone significantly influence stock return volatility, although the extent of this transmission varies across markets and instruments.

Despite this rich body of literature, a key gap persists in examining the combined and contemporaneous effects of multiple monetary policy instruments, such as repo rate, reverse repo rate, CRR, SLR, and MSF on a sector-specific index like Bank Nifty, especially in the post-pandemic context characterized by aggressive monetary interventions and volatile macroeconomic conditions. This study addresses this gap by empirically analysing the monetary policy transmission mechanism and its influence on commercial banks listed in the Nifty Bank Index during the 2019–2024 period.

METHODOLOGY

This study employs a quantitative and causal-comparative research design to examine the influence of key monetary policy instruments on the performance of Indian commercial banks, as captured by the Nifty Bank Index. The design is grounded in empirical analysis using secondary time-series data, with the objective of identifying both individual and collective effects of policy rate changes on stock market movements. The study's analytical framework includes regression and ANOVA techniques to establish causality and significance.

The research investigates the effect of six critical monetary policy instruments like Repo Rate, Reverse Repo Rate, Bank Rate, Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), and Marginal Standing Facility (MSF), on the Nifty Bank Index, which represents the equity performance of major Indian commercial banks listed on the National Stock Exchange (NSE). The analysis spans the period from April 1, 2019, to March 31, 2024, a timeline encompassing dynamic monetary interventions, including pandemic-era liquidity easing and subsequent rate hikes.

Objectives of the Study

1. To evaluate the correlation between monetary policy rates and the Nifty Bank Index.
2. To assess the individual and combined impact of monetary policy tools on the Bank Nifty Index.
3. To identify which monetary tools (e.g., liquidity-absorption vs. liquidity-injection instruments) have the most significant effect on banking stock prices.

Research Questions

1. Is there a statistically significant relationship between changes in monetary policy rates and the Nifty Bank Index?
2. Do individual monetary policy tools exert a measurable and significant influence on banking sector stock prices?
3. What is the combined impact of key policy instruments on the equity performance of the Indian banking sector?

Hypotheses of the Study

- $H_1$1: There is a statistically significant correlation between monetary policy rates and Nifty Bank Index prices.
- $H_1$2: Individual monetary policy instruments significantly influence the Bank Nifty Index.
- $H_1$3: The collective impact of monetary policy instruments significantly explains variation in Bank Nifty Index prices.

Data Collection and Sources

Type of Data: Secondary time-series data

Sources:

- Monetary policy data: Reserve Bank of India (RBI) official bulletins and announcements.
- Stock market data: Nifty Bank Index values obtained from NSE India, Yahoo Finance, and Bloomberg.
- Supplementary sources: MPC meeting minutes, CMIE Prowess database, and government economic surveys.

Variables and Operational Definitions

Dependent Variable:

LogBNIP – Natural logarithm of weekly/monthly average closing values of the Nifty Bank Index.

Independent Variables (Monetary Policy Instruments):

Repo Rate (RR, %), Reverse Repo Rate (RRR, %), Bank Rate (BR, %), Marginal Standing Facility (MSF, %), Statutory Liquidity Ratio (SLR, %), Cash Reserve Ratio (CRR, %)

Analytical Tools and Techniques

- *Descriptive Statistics*: To capture central tendency and variation in stock index and policy variables.
- *Simple Linear Regression (ANOVA)*: To evaluate the isolated impact of each policy rate on Bank Nifty Index.
- *Multiple Linear Regression*: To analyze the combined effect of all six monetary policy tools on banking stock performance.
- *Model Significance Testing*: Based on F-statistic and p-values, using SPSS software.

Model Specification

The multiple regression model is specified as follows:

$$LogBNIPt = \beta 0 + \beta 1(RRt) + \beta 2(RRRt) + \beta 3(BRt) + \beta 4(CRRt) + \beta 5(SLRt) + \beta 6(MSFt) + \epsilon tn\_t$$

Where:

- LogBNIP = Logarithmic value of the Nifty Bank Index
- RR, RRR, BR, CRR, SLR, MSF = Monetary policy instruments
- $\beta 0$ = Intercept; $\beta 1$–$\beta 6$ = Regression coefficients
- εt = Error term capturing unexplained variation

Data Analysis and Interpretation

Table-I: ANOVA between Bank Rate and Banks Nifty Index Prices

Model Summary[b]					F	Sig.
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	26.272	0.000
1	0.558[a]	0.312	0.300	0.0643181		
a. Predictors: (Constant), BR						
b. Dependent Variable: LogBNIP						

Table-I indicates a moderate positive correlation (R = 0.558) between the Bank Rate and the Bank Nifty Index prices. The Adjusted R Square value of 0.300 suggests that approximately 30% of the variation in the Bank Nifty Index prices can be explained by changes in the Bank Rate. The F-statistics of 26.272 with a significance level of 0.000 confirm that the model is statistically significant. This implies that the Bank Rate has a meaningful influence on the performance of bank stocks on the NSE.

Table-II: ANOVA between Repo Rate and Banks Nifty Index Prices

Model Summary[b]					F	Sig.
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	24.410	0.000
1	0.544[a]	0.296	0.284	0.0650405		
a. Predictors: (Constant), RR						
b. Dependent Variable: LogBNIP						

Table-II shows a moderate positive correlation (R = 0.544) between the Repo Rate and the Bank Nifty Index. The Adjusted R Square of 0.284 indicates that nearly 28.4% of the variation in Bank Nifty Index prices is attributable to changes in the Repo Rate. The statistically significant F-value (24.410, $p < 0.01$) confirms the presence of a reliable relationship. This supports the hypothesis that frequent changes in the repo rate materially impact the performance of banking stocks.

Table-III: ANOVA between Reverse Repo Rate and Banks Nifty Index Prices

Model Summary[b]					F	Sig.
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	34.895	0.000
1	0.613[a]	0.376	0.365	0.0612603		
a. Predictors: (Constant), RRR						
b. Dependent Variable: LogBNIP						

As seen in Table-III, there is a stronger correlation (R = 0.613) between the Reverse Repo Rate and Bank Nifty Index prices. The Adjusted R Square value of 0.365 suggests that 36.5% of the index variation is explained by changes in the Reverse Repo Rate. The F-statistics are significant (34.895, $p < 0.01$), indicating a robust model fit. This implies that reverse repo operations, which directly affect short-term liquidity, significantly influence the market valuation of banking firms.

Table-IV: ANOVA between Marginal Standing Facility and Banks Nifty Index Prices

Model Summary[b]					F	Sig.
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	28.023	0.000
1	0.571[a]	0.326	0.314	0.0636602		
a. Predictors: (Constant), MSF						
b. Dependent Variable: LogBNIP						

Table-IV reveals a moderate positive relationship (R = 0.571) between the MSF rate and the Bank Nifty Index. With an Adjusted R Square of 0.314, about 31.4% of the variation in the index is explained by movements in the MSF. The model is statistically significant (F = 28.023, $p < 0.01$), indicating that liquidity windows like MSF play a considerable role in shaping banking stock prices.

Table-V: ANOVA between Statutory Liquidity Ratio and Banks Nifty Index Prices

Model Summary[b]					F	Sig.
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	1.663	0.202
1	0.167[a]	0.028	0.011	0.0764402		
a. Predictors: (Constant), SLR						
b. Dependent Variable: LogBNIP						

Table-V displays a very weak correlation (R = 0.167) between the SLR and Bank Nifty Index prices. The Adjusted R Square is only 0.011, suggesting that less than 1.1% of the variation in the index is attributable to changes in SLR. The F-value is low and statistically insignificant ($p > 0.05$), indicating that SLR changes do not significantly influence the stock prices of banks in this context.

Table-VI: ANOVA between Monetary Policy Rates and Banks Nifty Index Prices

Model Summary[b]					F	Sig.
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	8.720	0.000
1	0.668[a]	0.447	0.396	0.0597648		
a. Predictors: (Constant), SLR, RR, RRR, BR, MSF						
b. Dependent Variable: LogBNIP						

Table-VI provides insights into the combined effect of all six monetary policy instruments (Repo Rate, Reverse Repo Rate, Bank Rate, CRR, SLR, MSF) on the Bank Nifty Index. The correlation coefficient (R = 0.668) indicates a strong relationship, and the Adjusted R Square (0.396) shows that nearly 40% of the variance in bank stock performance can be explained by these policy tools together. The model is highly significant (F = 8.720, $p < 0.01$). This highlights that the collective influence of monetary policy actions exerts a substantial impact on the banking sector's stock market performance.

RESULT AND DISCUSSION

The statistical evidence reveals that most individual monetary policy instruments, especially the Repo Rate, Reverse Repo Rate, MSF, and Bank Rate, show statistically significant relationships with the performance of the Nifty Bank Index. Among these, the Reverse Repo Rate showed the highest explanatory power, suggesting that liquidity absorption tools can have a prominent role in stock price fluctuations. Notably, the SLR stood out as an outlier, showing minimal to no explanatory value, possibly due to its infrequent adjustments or longer-term structural role, which does not generate immediate market response. The multiple regression analysis combining all six policy rates produced the strongest model fit, underscoring the interconnected and cumulative impact of India's monetary policy framework on the banking sector's equity performance. These findings support the central research objective by affirming that frequent and strategic adjustments in monetary policy rates by the RBI do have a measurable and significant effect on the Bank Nifty Index. As a result, market participants, investors, and policymakers should closely monitor monetary signals, especially those related to liquidity (e.g., Repo and Reverse Repo Rates), to anticipate stock market movements within interest-sensitive sectors.

CONCLUSION

The study underscores that changes in monetary policy rates, particularly the Bank Rate, Repo Rate, Reverse Repo Rate, and Marginal Standing Facility, have a statistically significant and measurable impact on the Banks Nifty Index. This relationship highlights the sensitivity of the banking sector's market valuation to policy decisions by the Reserve Bank of India (RBI). Therefore, the Monetary Policy Committee (MPC) must exercise caution and adopt a data-driven, balanced approach when altering these rates, as such decisions influence not only liquidity and credit flow but also investor sentiment and stock market dynamics. While adjusting key policy rates remains essential for controlling inflation and ensuring macroeconomic stability, it is equally important to consider complementary qualitative tools such as moral suasion and selective credit controls. These instruments can provide a nuanced mechanism for managing systemic liquidity without causing abrupt disruptions to financial markets. The RBI’s strategic calibration of both quantitative and qualitative monetary policy tools will be vital in maintaining financial stability and supporting sustainable economic growth.

- **Data Availability**

The data is collected from the original source. The details are as follows.

Monetary Policy Rates: DBIE (RBI Official website)

Stock Prices of Commercial Banks: NSE official website

Other information from individual banks official website.

- **Declaration Of Conflicting Interests**

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

- **Funding**

The author received no financial support for the research, authorship and/or publication of this article.

- **Authors Contribution**

The paper is prepared by the mentioned author with mutual understanding and proper consideration.

➢ **Acknowledgements**

No acknowledgements for this research paper.

➢ **Disclaimer**

The views expressed in the article are those of the authors and do not represent the views of the institutions they belong to.

References

1) Arijit, G., & Ghosh, B. (2011). Forecasting BSE Sensex under optimal conditions: An investigation post factor analysis. *Journal of Business Studies Quarterly, 2*(3), 57–73.

2) Bohl, M. T., Siklos, P. L., & Werner, T. (2008). European stock markets and the ECB’s monetary policy surprises. *International Finance, 11*(2), 117–130.

3) Chavannavar, M. B., & Choudhari, S. C. (2016). Monetary policy effect on Nifty 50 and sectoral indices: A study from Indian stock markets. *International Journal of Latest Technology in Engineering, Management & Applied Science, 5*(4), 59–69.

4) Ioannidis, C., & Kontonikas, A. (2008). The impact of monetary policy on stock prices. *Journal of Policy Modeling, 30*(1), 33–53.

5) Irani, K. A. (2015). Investigation on monetary policies effect in view of efficiency of private banks stock admitted in the stock market. *International Journal of Innovation and Applied Studies*, *10*(3), 875–880.

6) Kerongo, M. M., & Wanjiru, M. (2016). The effect of monetary policy on financial performance of the commercial banks listed on the Nairobi Securities Exchange. *International Journal of Finance and Accounting, 5*(2), 74–87.

7) Konrad, E. (2009). The impact of monetary policy surprises on asset return volatility: The case of Germany. *Financial Markets and Portfolio Management, 23*(2), 111–135.

8) Mohanty, D. (2011, August 26). *How does the Reserve Bank of India conduct its monetary policy?* [Speech]. Reserve Bank of India, Lucknow, India.

9) Pandit, B. L., & Vashisht, P. (2011). *Monetary policy and credit demand in India and some EMEs* (ICRIER Working Paper No. 256). Indian Council for Research on International Economic Relations.

10) Prabu, E., Bhattacharyya, I., & Ray, P. (2020). Impact of monetary policy on the Indian stock market: Does the devil lie in the detail? *Indian Economic Review, 55*(1–2), 27–50.

11) Rangarajan, C. (1998). Role of monetary policy. *Economic and Political Weekly, 33*(33–34), 3325–3328.

12) Saha, S. (2017). *Interlinkage between Indian stock market volatility and selected macroeconomic variables in the post reforms era* (Doctoral dissertation, University of Burdwan).

13) Sachdeva, J. K. (n.d.). *India's economic transformation: An analysis of growth, global integration and monetary policy*.