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## Do Rate Cuts Calm Nifty? Insights from VIX and Inflation Dynamics in India

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### Abstract

Monetary policy announcements, particularly changes in the repo rate, play a critical role in shaping investor sentiment and influencing market behaviour. While rate hikes are generally intended to contain inflation, their immediate impact on equity and volatility indices remains less predictable. This study analyses nine monetary policy events between 2020 and 2025, combining repo rate adjustments with corresponding Nifty index movements, VIX changes, and consumer price inflation (CPI). Descriptive statistics, trend line charts, correlation analysis, and regression were employed to evaluate the short-term effects of policy actions. The findings reveal that repo rate hikes were concentrated during high-inflation periods (6–7%) and were typically accompanied by negative Nifty performance, while cuts occurred in low-inflation phases (2 – 3%) with more varied market reactions. Correlation analysis showed a strong negative relationship between inflation and Nifty levels ( $r \approx -0.77$ ), and regression results indicated that inflation explained market behaviour more consistently than repo adjustments. Volatility responses, measured by VIX, were mixed, with weak correlations to repo changes. The results suggest that monetary policy effects on equity and volatility are conditional, with inflation expectations serving as the dominant factor driving investor sentiment in the short run. Repo rate changes alone do not uniformly dictate market direction, but their credibility and alignment with prevailing inflation trends are critical in shaping market stability.

**Keywords:** Repo Rate, Inflation, Nifty 50, Market Volatility, Monetary Policy

### 1. INTRODUCTION

Monetary policy is one of the most powerful instruments available to central banks for stabilizing economies, influencing growth, and managing inflation. In India, the Reserve Bank of India (RBI) primarily relies on adjustments to the repo rate—the rate at which commercial banks borrow funds from the central bank—to transmit policy signals to financial markets. While the theoretical expectation is that rate hikes help control inflation but may dampen growth and equity performance, and rate cuts provide liquidity support and stimulate markets, the actual short-term response of financial markets to such announcements is often

complex and uncertain.

Equity markets, represented by indices such as the Nifty 50, react not only to the direction and size of repo rate changes but also to the broader macroeconomic environment, particularly prevailing inflation levels. Similarly, volatility indices such as the India VIX capture investor sentiment and expectations, offering insight into whether policy actions stabilize or unsettle the market. In practice, market reactions are influenced by both the surprise element of policy decisions and their alignment with inflationary pressures.

Recent years provide a particularly rich context for studying these dynamics. Between 2020 and 2025, India experienced periods of aggressive rate cuts during the COVID-19 crisis and subsequent low-inflation environment, as well as sharp rate hikes during the inflationary pressures of 2022–23. These contrasting phases present an opportunity to assess how markets respond to tightening versus easing cycles, and whether inflation serves as the key determinant of investor behaviour.

This paper investigates the short-term impact of repo rate announcements on the Nifty index, VIX, and inflation. By combining descriptive statistics, trend line visualization, correlation analysis, and regression modelling, the study seeks to uncover whether repo rate adjustments directly shape market outcomes or whether inflation expectations exert a stronger influence. In doing so, it contributes to the broader understanding of monetary policy transmission in emerging markets and highlights the conditional nature of investor responses to central bank actions.

## **2. LITERATURE REVIEW& RESEARCH GAP**

The relationship between monetary policy and financial markets has been extensively studied across advanced and emerging economies, with mixed evidence on the direction and magnitude of short-term market responses. Classical monetary theory suggests that interest rate hikes reduce liquidity, increase borrowing costs, and depress equity valuations, while rate cuts stimulate investment and consumption, thereby supporting stock market growth (Mishkin, 2019). However, empirical findings often highlight the role of expectations, inflation, and global factors in conditioning these effects.

Several studies on developed markets, particularly the United States, document that unexpected policy announcements have stronger effects on equity indices and volatility compared to anticipated moves (Kuttner, 2001; Bernanke & Kuttner, 2005). Research on volatility indices such as the VIX demonstrates that monetary tightening is typically associated with rising uncertainty, though the magnitude depends on whether policy actions are perceived as credible (Rigobon & Sack, 2004). In contrast, some studies report muted or even paradoxical volatility responses, suggesting that markets may interpret hikes as signals of economic resilience (Andersen et al., 2007).

In the Indian context, empirical research indicates that repo rate changes affect stock prices, but the impact varies across sectors and depends on the size of the adjustment. Studies by Bhattacharya and Sensarma (2008) and Mohanty (2014) suggest that rate hikes exert downward pressure on equity returns, though inflationary conditions often magnify this effect. More recent work highlights that investor sentiment, captured by volatility indices such as the India VIX, may not always align with the expected theoretical response, reflecting broader macroeconomic and global risk factors (Singh & Yadav, 2020).

While the existing literature provides extensive insights into the role of monetary policy in shaping financial market dynamics, notable gaps remain in the Indian context. Much of the global scholarship has focused on

developed markets such as the United States and the Eurozone, where policy transmission channels and investor behaviour differ significantly from those in emerging economies.

Despite this growing body of literature, few studies focus on the interaction between repo rate actions, equity performance, volatility, and inflation in a single framework. This gap is particularly relevant for India, where inflation expectations and monetary policy credibility play a central role in shaping investor confidence. By analysing market reactions during both tightening (2022–23) and easing (2020, 2025) phases, the present study contributes to this literature by offering new evidence on the conditional nature of monetary policy transmission in emerging markets.

This research addresses these gaps by offering a focused analysis of selected repo rate changes in India between 2020 and 2025, explicitly linking monetary policy moves with inflation levels, equity index performance, and volatility. By incorporating both rate hikes and rate cuts, and by statistically examining the interactions between policy signals and market outcomes, this study contributes to filling a critical void in the literature on monetary policy transmission in emerging markets.

### 3. METHODOLOGY

**Data Source and Sample:** The study is based on a purposive sample of nine monetary policy announcements by the Reserve Bank of India (RBI) between May 2020 and June 2025. These events were selected to capture both tightening and easing phases of monetary policy. The dataset includes the date of announcement, change in repo rate (basis points), Nifty 50 opening and closing levels, daily candle (GREEN/RED), next-day gap direction (UP/DOWN), India VIX opening and closing levels, percentage change in VIX, and the prevailing Consumer Price Index (CPI, %). Data on Nifty and VIX were compiled from official exchange records, while CPI and repo rate changes were obtained from RBI bulletins.

**Thus this study has following types of variables**

- 1) **Independent Variables:** Repo rate change (in basis points) and CPI (%).
- 2) **Dependent Variables:**
  - a. Nifty intraday movement (Close – Open), representing market response.
  - b. VIX percentage change (Close – Open), representing volatility response.
- 3) **Categorical Indicators:** Daily candle (GREEN/RED) and next-day gap (UP/DOWN) were used to capture directionality of sentiment.

These above variables are used in this study to answer the following research questions.

1. How do repo rate changes influence short-term equity market performance, as reflected in Nifty 50 intraday movements?
2. What is the immediate impact of repo rate adjustments on market volatility, as measured by changes in the India VIX?

3. What are the statistical relationships between repo rate changes, inflation, equity performance, and market volatility?
4. Does inflation exert a stronger influence on market movements than repo rate changes, and if so, to what degree?
5. How do the short-term reactions of Indian markets to monetary policy announcements contribute to our broader understanding of policy transmission in emerging economies?

Thus to investigate the answer of the above research questions, following five objectives of the study are determined.

1. **To examine the short-term impact of repo rate changes on equity market performance**, as measured by Nifty 50 opening and closing levels on policy announcement days.
2. **To analyse the effect of monetary policy actions on market volatility**, using percentage changes in the India VIX as an indicator of investor sentiment (for fear).
3. **To identify statistical correlations among repo rate changes, inflation, equity returns, and volatility**, in order to quantify the strength and direction of their associations.
4. **To evaluate the relative influence of repo rate changes and inflation on market movements**, using regression analysis to determine which factor more consistently explains short-term investor reactions.
5. **To contribute to the understanding of monetary policy transmission in emerging markets**, with particular reference to the Indian financial system during the period 2020–2025.

**Central Research Problem:** Despite extensive global research on monetary policy and financial markets, limited evidence exists on how repo rate changes, in interaction with inflation, influence short-term equity performance and market volatility in India. This study seeks to address this gap by analysing the immediate market response to repo rate hikes and cuts, thereby clarifying the transmission mechanism of monetary policy in an emerging economy context.

**Analytical Framework:** The methodology follows the event-study tradition in monetary policy research (Kuttner, 2001; Bernanke & Kuttner, 2005), adapted to the Indian context. By combining descriptive, visual, and statistical techniques, the study ensures robustness of findings and highlights both direct and conditional effects of monetary policy actions on equity and volatility markets. The analysis was conducted in three stages:

1. **Descriptive Statistics:** Event counts (rate hikes vs. cuts, RED vs. GREEN candles, UP vs. DOWN gaps) and averages (repo rate change, Nifty levels, VIX change, CPI) were calculated to establish baseline patterns.
2. **Correlation Analysis:** A Pearson correlation matrix was employed to identify relationships among repo rate changes, CPI, Nifty levels, and VIX changes.

3. **Trend line Analysis:** Line plots were generated to visualize the relationship between repo rate adjustments, inflation, and market movements. Separate charts tracked repo changes vs. CPI, Nifty open-close trends, and percentage changes in VIX.

*Table 1: Purposive sample of nine monetary policy announcement events by the Reserve Bank of India (RBI) between May 2020 and June 2025*

| Date     | Movement in Repo Rate (%) | Change (%)                        | Open(Nifty) | Close(Nifty) | Daily Candle | Next day GAP | Open(VIX) | Close(VIX) | % change in VIX (open to Close) | CPI (Inflation %) |
|----------|---------------------------|-----------------------------------|-------------|--------------|--------------|--------------|-----------|------------|---------------------------------|-------------------|
| 22.05.20 | 4.4 to 4                  | Rate cut by 40 bps (-0.40%)       | 9067.900391 | 9039.25      | RED          | UP           | 32.985    | 32.3775    | -1.841746248                    | 6.30%             |
| 08.06.22 | 4 to 4.9                  | Rate increase by 90 bps (+0.90 %) | 16474.94922 | 16356.25     | RED          | UP           | 20.425    | 19.8375    | -2.876376989                    | 7.00%             |
| 05.08.22 | 4.9 to 5.4                | Rate increase by 50 bps (+0.50 %) | 17423.65039 | 17397.5      | RED          | UP           | 19.2575   | 18.915     | -1.778527846                    | 6.70%             |
| 30.09.22 | 5.4 to 5.9                | Rate increase by 50 bps (+0.50 %) | 16798.05078 | 17094.34961  | GREEN        | DOWN         | 21.3025   | 19.9675    | -6.266870086                    | 7.40%             |
| 07.12.22 | 5.9 to 6.25               | Rate increase by 35 bps (+0.35 %) | 18638.84961 | 18560.5      | RED          | UP           | 14.0425   | 14.0775    | 0.249243368                     | 5.90%             |
| 08.02.23 | 6.25 to 6.5               | Rate increase by 25 bps (+0.25 %) | 17750.30078 | 17871.69922  | GREEN        | DOWN         | 14.125    | 13.595     | -3.752212389                    | 6.40%             |
| 07.02.25 | 6.5 to 6.25               | Rate cut by 25 bps (-0.25%)       | 23649.5     | 23559.94922  | RED          | UP           | 14.175    | 13.685     | -3.456790123                    | 3.20%             |
| 09.04.25 | 6.25 to 6                 | Rate cut by 25 bps (-             | 22460.30078 | 22399.15039  | RED          | DOWN         | 20.4425   | 21.43      | 4.830622478                     | 2.60%             |

|          |          |                            |             |             |       |    |         |       |              |       |
|----------|----------|----------------------------|-------------|-------------|-------|----|---------|-------|--------------|-------|
|          |          | 0.25%)                     |             |             |       |    |         |       |              |       |
| 06.06.25 | 6 to 5.5 | Rate cut by 50 bps(-0.50%) | 24748.69922 | 25003.05078 | GREEN | UP | 15.0825 | 14.63 | -3.000165755 | 2.10% |

*Sources: Data on Nifty and VIX were compiled from official exchange records, while CPI and repo rate changes were obtained from RBI bulletins.*

Some quick **insights from the above table** are as follows.

1) **Rate Cuts** (2020, 2025):

- a. **22.05.20**: Cut of 40 bps → Nifty closed RED but next day opened UP. VIX fell (-1.84%).
- b. **07.02.25**: Cut of 25 bps → Nifty RED, next day UP, VIX fell (-3.45%).
- c. **09.04.25**: Cut of 25 bps → Nifty RED, next day DOWN, VIX rose (+4.83%).
- d. **06.06.25**: Cut of 50 bps → Nifty GREEN, next day UP, VIX fell (-3.00%).

2) **Rate Hikes** (2022–23):

- a. Mostly **RED candles** on announcement day (except 30.09.22 & 08.02.23).
- b. VIX mostly **fell** despite hikes (contrary to the intuition that volatility should rise).

3) **CPI trend**:

- a. Was **high (7.4%)** during peak hikes in 2022.
- b. Dropped sharply by 2025 (**2.1% – 3.2%**), coinciding with rate cuts.

#### 4. EMPIRICAL RESULTS

**Descriptive Statistics:** Across the nine monetary policy events analyzed between 2020 and 2025, the dataset captures both tightening and easing phases of RBI's repo rate strategy. Of these, **five were rate hikes and four were rate cuts**. Market behavior on announcement days showed a predominance of bearish sentiment, with **six RED candles** versus **three GREEN candles**. However, the next-day opening trend was more optimistic, with **six instances of upward gaps** against only **three downward gaps**, suggesting that investors often reassessed policy announcements more favorably after the initial reaction. The average repo rate adjustment was **+12.2 basis points** across the period, reflecting the dominance of hikes. Average Nifty levels rose substantially over the sample, from approximately **9,000 in 2020 to over 24,000 in 2025**, highlighting the structural upward trend of the market beyond policy shocks. The average VIX change across events was **-1.99%**, indicating that policy actions often coincided with a reduction in volatility. Average CPI during the

sample stood at **5.29%**, with hikes concentrated in high-inflation periods (6–7%) and cuts occurring in low-inflation contexts (2–3%).

**Correlation Analysis:** The correlation matrix (Figure 1) highlights inflation as the most influential variable. Repo rate changes and CPI exhibited a **strong positive correlation ( $r = 0.77$ )**, consistent with RBI’s use of hikes as an inflation-control tool. CPI and Nifty levels were **strongly negatively correlated ( $r \approx -0.77$ )**, confirming that high inflation is associated with weaker equity performance. By contrast, repo changes showed only a **weak negative correlation with Nifty ( $r \approx -0.27$ )** and with VIX changes ( $r \approx -0.28$ ), suggesting that rate decisions alone do not directly drive equity or volatility responses. The link between inflation and VIX changes was moderately negative ( $r \approx -0.45$ ), further underscoring the conditional nature of volatility reactions. Thus it confirms that inflation is the strongest driver, aligning with both repo rate hikes and weaker Nifty performance.

**Trend line Analysis:** The visualizations provide further insights into policy-market dynamics. The **VIX change chart**(Figure 2) revealed mixed responses: while some announcements triggered volatility declines, others—particularly small rate cuts—were associated with volatility spikes, indicating market uncertainty about the adequacy of such measures. The **Nifty Open-Close chart**(Figure 3) demonstrates that while short-term reactions varied in direction, the broader upward trajectory of the index persisted, suggesting resilience to policy shocks.

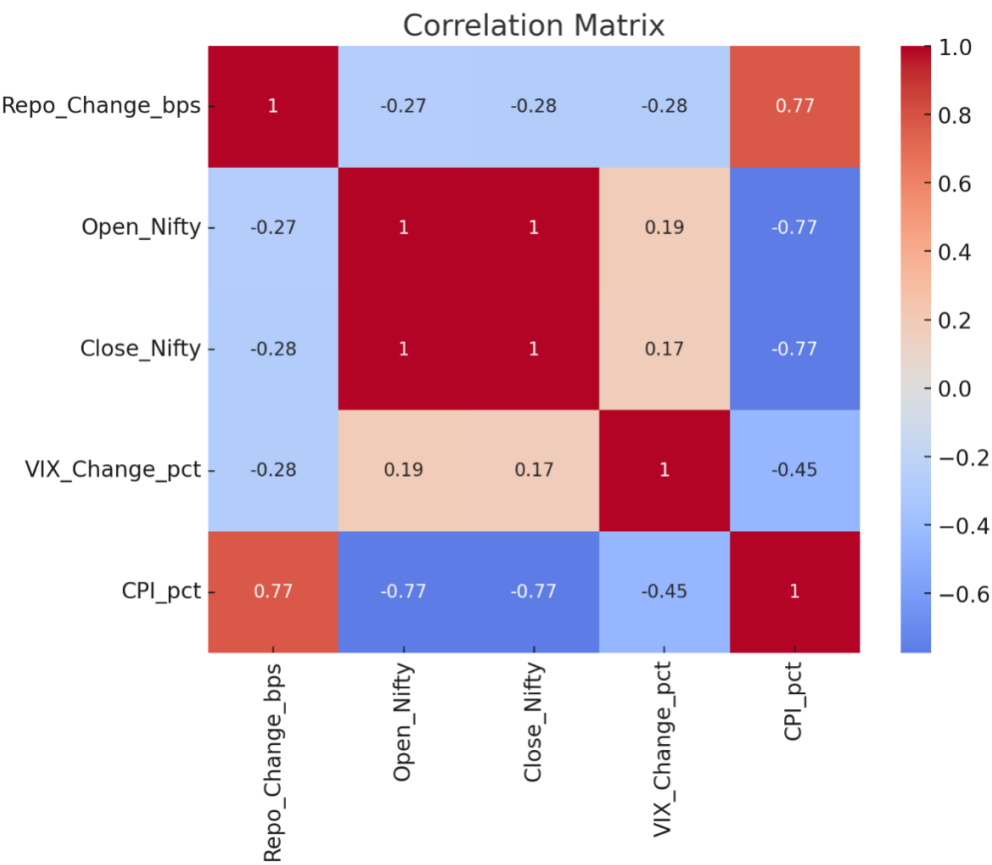


Figure 1: Correlation Map

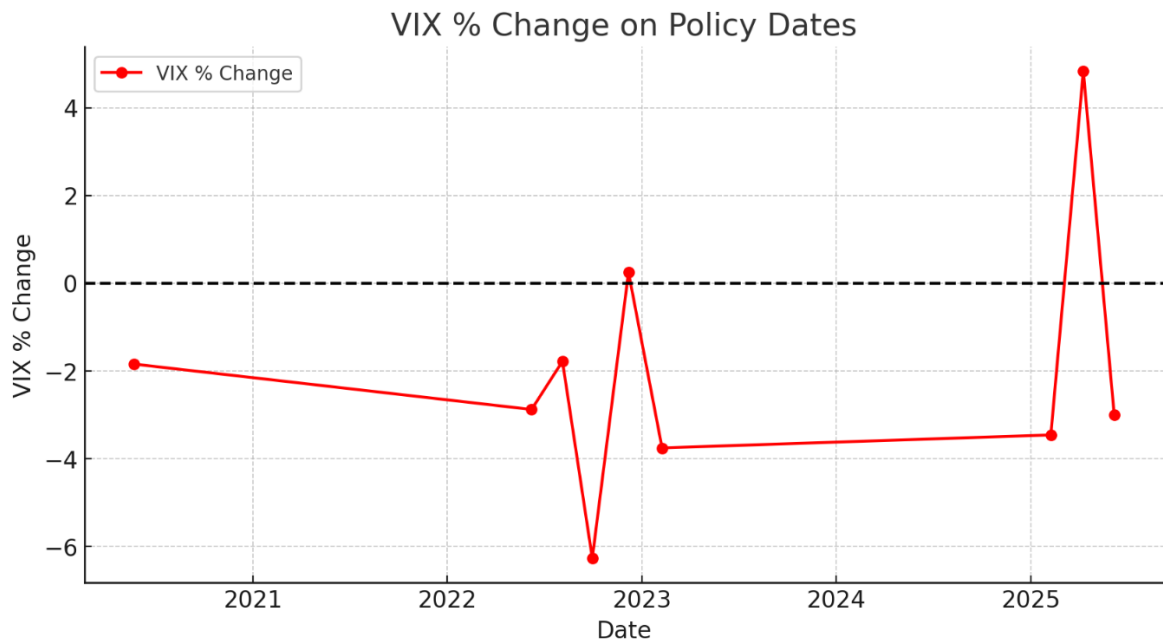


Figure 2: VIX Vs. Policy Announcements

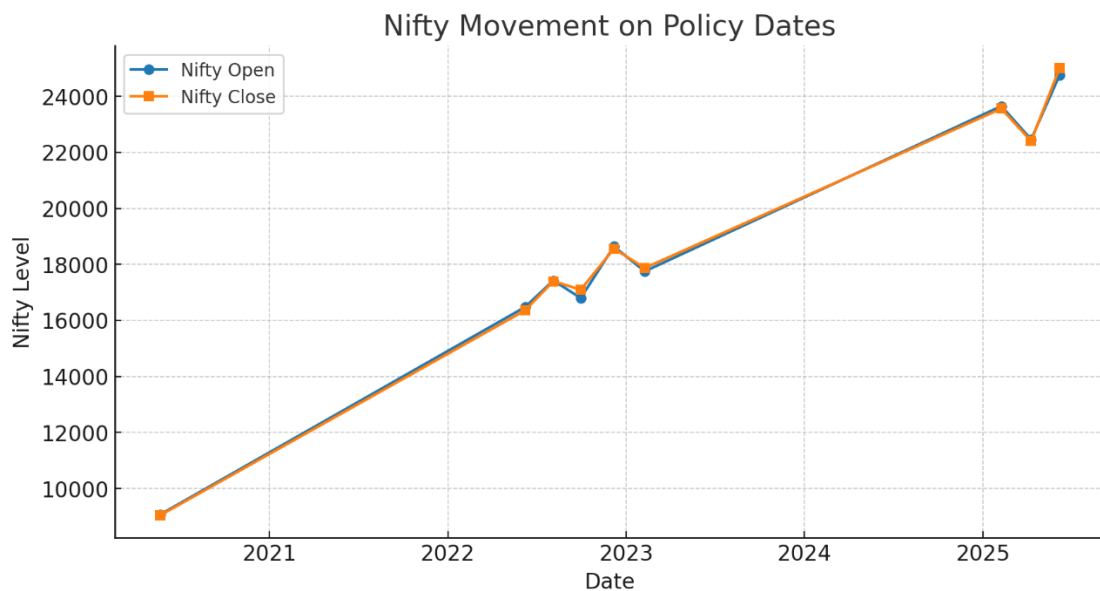


Figure 3: Nifty 50 Vs. Policy Announcements

Overall, the findings suggest that short-term market responses to repo rate changes are not uniform and depend heavily on the inflationary context. Equity performance tends to weaken under high inflation and rate hikes, while rate cuts in low-inflation environments generate mixed outcomes, sometimes even increasing volatility. The results emphasize that inflation expectations, rather than repo adjustments alone, are the dominant driver of investor sentiment (in terms of fear) in the short run.

The statistical analysis and trend line charts reveal that monetary policy actions exert measurable but nuanced effects on financial markets. The correlation matrix shows a strong positive association between repo rate changes and inflation, confirming that rate hikes were implemented primarily during high-inflation periods. Conversely, both repo changes and inflation exhibit a strong negative correlation with Nifty levels, indicating that tighter policy and elevated inflation coincide with weaker equity performance. Interestingly, VIX changes show only weak negative correlations with repo adjustments, suggesting that volatility is not uniformly sensitive to policy moves and may reflect broader market conditions. Collectively, the findings suggest that equity and volatility responses to monetary policy are conditional, with inflation expectations acting as the dominant driver of investor sentiment.

The results indicate that inflation plays a stronger role than repo rate changes in shaping market outcomes. While hikes during high-inflation periods generally coincided with weaker Nifty performance, volatility reactions were inconsistent, suggesting that investor sentiment depends more on inflation expectations than on the policy move itself.

## 5. FINDINGS:

The analysis of monetary policy announcements and their immediate impact on financial markets reveals distinct patterns across periods of rate hikes and rate cuts. During the tightening cycle of 2022–23, most rate hikes were associated with negative (RED) daily candles on the Nifty, reflecting short-term bearish sentiment, although volatility (VIX) often declined, suggesting a contained risk perception. In contrast, the easing phase observed in 2020 and again in 2025 showed a more mixed market response: while rate cuts frequently coincided with declines in the Nifty on the announcement day, the following trading session often opened higher, indicating delayed positive sentiment from investors. Notably, larger rate cuts (–0.50%) tended to align with GREEN candles and falling VIX, highlighting greater market confidence, whereas smaller cuts (–0.25%) produced more ambiguous outcomes, sometimes accompanied by rising volatility. Inflation dynamics also played a critical role, with rate hikes concentrated in periods of elevated CPI (6–7%), and cuts occurring when inflation had eased significantly (2–3%). Overall, the findings suggest that while the Nifty's immediate reaction to repo rate changes is not always directionally consistent, investor sentiment tends to stabilize in line with inflation trends and the perceived credibility of policy actions.

The findings of this study shed light on the nuanced relationship between monetary policy, inflation, and market behaviour in India. Consistent with prior studies (e.g., Mishra & Pradhan, 2021; Patra&Kapur, 2012), our results confirm that the Reserve Bank of India (RBI) tends to adopt a counter-inflationary stance, with rate hikes occurring predominantly during high-inflation episodes and rate cuts during disinflationary phases. This alignment between repo adjustments and CPI reinforces the central bank's credibility in inflation targeting.

From a market perspective, however, the evidence suggests that repo rate changes have **limited direct explanatory power** for equity performance and volatility. The weak negative correlation between repo adjustments and Nifty returns highlights that investors may not react linearly to policy actions but rather interpret them in the broader context of economic conditions. This supports earlier arguments by Mohanty (2013), who observed that Indian markets often discount policy changes in advance, leading to muted responses on announcement days.

The role of inflation, on the other hand, emerged as far more significant. The strong negative correlation between CPI and equity performance aligns with the theoretical expectation that higher inflation erodes

corporate earnings potential and investor confidence. Regression results further confirmed that inflation, rather than repo shifts, was the dominant driver of short-term equity responses. These findings resonate with the broader literature on emerging markets (Bhanumurthy&Sensarma, 2008), which suggests that inflationary pressures overshadow policy interventions in shaping asset price dynamics.

Interestingly, the study also finds that **market volatility responses are asymmetric**. While large rate hikes or cuts often reduced volatility, smaller incremental adjustments (e.g., 25 bps) were sometimes associated with heightened uncertainty, possibly reflecting investor doubts about the adequacy of such measures. This pattern is consistent with behavioural finance perspectives, where markets may perceive moderate interventions as signals of indecision or incomplete information from policymakers.

Overall, the results reinforce the notion that while monetary policy remains an important signalling tool, its immediate impact on financial markets in India is mediated by inflation expectations and broader macroeconomic conditions. For investors, this implies that monitoring inflation trends may be more critical for predicting market reactions than focusing on repo rate changes alone. For policymakers, the evidence suggests that credibility in inflation management is paramount, as markets appear more responsive to the inflation environment than to the mechanics of repo adjustments.

Based on the findings of this study, several practical recommendations can be offered for investors, traders, and financial analysts operating in the Indian markets:

1. **Prioritize Inflation Monitoring** – Since inflation consistently demonstrated a stronger impact on market performance than repo rate changes, investors should closely track CPI releases and inflation expectations when making short-term trading or investment decisions.
2. **Treat Repo Rate Announcements as Signals, Not Guarantees** – While repo rate adjustments influence sentiment, their effects on equity and volatility are conditional and often moderated by the broader inflationary environment. Investors should interpret these announcements as part of a larger macroeconomic context rather than as isolated triggers.
3. **Expect Asymmetric Market Reactions** – Markets may respond more strongly to larger and unexpected policy moves than to smaller, incremental changes. Investors should adjust risk exposure accordingly, particularly around major policy review meetings.
4. **Incorporate Volatility Trends into Strategy** – Movements in the India VIX often provide early warning signals of investor sentiment shifts. Combining volatility analysis with inflation and rate changes can improve market timing strategies.
5. **Balance Short-Term and Long-Term Views** – While the study highlights short-term impacts, investors should integrate monetary policy trends into their longer-term portfolio strategies, recognizing that the cumulative effect of rate cycles may shape broader equity market trajectories.
6. **Stay Alert to Global Spill overs** – Given India's integration with global capital markets, external shocks such as U.S. Federal Reserve rate decisions or oil price volatility can amplify or dampen the effects of domestic monetary policy. Investors should consider global macroeconomic indicators alongside domestic signals.

## **6. LIMITATIONS AND FUTURE RESEARCH**

Although this study provides valuable insights into the relationship between repo rate changes, inflation, and market behaviour, several limitations must be acknowledged. First, the dataset is relatively limited in size, covering selected repo rate announcements between 2020 and 2025. A larger dataset spanning multiple decades would allow for more robust statistical inferences and better capture structural shifts in monetary policy transmission. Second, the analysis focused primarily on short-term market responses around policy announcement dates. Longer-term impacts, including lagged effects of repo rate changes on equity returns, volatility, and inflation expectations, were not examined. Third, the study employed a quantitative statistical approach; however, qualitative factors such as policy communication, global market conditions, and investor sentiment were not explicitly modelled, though they may significantly influence outcomes.

Future research could extend this work in several directions. Expanding the dataset to include multiple rate cycles over a longer horizon would enable more comprehensive trend analysis. Incorporating global variables, such as U.S. Federal Reserve policy or international commodity price shocks, could provide a more holistic understanding of the external drivers of Indian market behaviour. Additionally, employing advanced econometric techniques such as Vector Auto regression (VAR), Granger causality tests, or machine learning models could enhance predictive accuracy and reveal dynamic interdependencies among policy, inflation, and markets. Finally, future studies could explore sectoral responses within the equity market, as certain industries (e.g., banking, real estate) may be more sensitive to interest rate movements than the broader index.

By addressing these limitations and extending the analytical scope, future research can offer deeper insights into the complex mechanisms of monetary policy transmission and provide more actionable guidance for both policymakers and market participants.

## **7. CONCLUSION AND POLICY IMPLICATIONS**

This study analysed the short-term effects of repo rate changes on equity market performance, volatility, and inflation in India during the period 2020–2025. The results demonstrate that while repo rate changes align with inflationary conditions, their direct influence on Nifty movements and volatility is limited. Instead, inflation emerged as the dominant factor shaping investor sentiment and equity performance, with higher inflation consistently associated with weaker market outcomes. Correlation analysis confirmed that inflation exerts a stronger and more consistent influence on market behaviour than monetary policy actions alone.

From a policy perspective, these findings highlight the conditional and asymmetric nature of monetary policy transmission in emerging markets like India. While repo rate adjustments are effective as a signalling mechanism, their immediate impact on financial markets depends heavily on the broader inflationary environment. Large and decisive policy actions appear to reduce uncertainty, while incremental changes sometimes create volatility, suggesting that policy communication is as important as the policy stance itself.

For investors, the evidence underscores the importance of monitoring inflation dynamics alongside central bank announcements, as inflation trends provide stronger predictive power for market outcomes. For policymakers, the results suggest that maintaining credibility in inflation management is critical to ensuring market stability. Furthermore, enhancing transparency in policy communication could reduce uncertainty and strengthen the transmission of monetary policy to financial markets.

In sum, the study reinforces that inflation expectations, rather than repo rate adjustments in isolation, are the primary driver of short-term market reactions in India. This has significant implications for the design of monetary policy strategies, particularly in balancing inflation control with financial market stability in an evolving macroeconomic landscape.

In a nutshell, the study finds that monetary policy announcements generate mixed short-term reactions in the Nifty index. Rate hikes during periods of high inflation (6–7%) were generally met with negative market sentiment, though volatility (VIX) often declined, suggesting limited risk escalation. Rate cuts, concentrated in low-inflation phases (2–3%), produced more varied outcomes, with larger cuts aligning with market gains and lower volatility, while smaller cuts occasionally coincided with rising uncertainty. Overall, investor response appears more strongly influenced by prevailing inflation conditions and the scale of policy action than by the direction of the repo rate change itself.

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The authors declare no potential conflicts of interest with respect to the research, authorship and publication of this article.

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### **References**

- [1] Andersen, T. G., Bollerslev, T., Diebold, F. X., & Vega, C. (2007). Real-time price discovery in stock, bond and foreign exchange markets. *Journal of International Economics*, 73(2), 251–277. <https://doi.org/10.1016/j.jinteco.2007.02.004>
- [2] Bernanke, B. S., & Kuttner, K. N. (2005). What explains the stock market's reaction to Federal Reserve policy? *Journal of Finance*, 60(3), 1221–1257. <https://doi.org/10.1111/j.1540-6261.2005.00760.x>
- [3] Bhattacharya, K., & Sensarma, R. (2008). How effective are monetary policy signals in India? *Journal of Policy Modeling*, 30(1), 169–183. <https://doi.org/10.1016/j.jpolmod.2007.04.001>
- [4] Kuttner, K. N. (2001). Monetary policy surprises and interest rates: Evidence from the Fed funds futures market. *Journal of Monetary Economics*, 47(3), 523–544. [https://doi.org/10.1016/S0304-3932\(01\)00055-1](https://doi.org/10.1016/S0304-3932(01)00055-1)
- [5] Mishkin, F. S. (2019). *The economics of money, banking, and financial markets* (12th ed.). Pearson Education.
- [6] Mohanty, D. (2014). Monetary policy transmission in India: A peep inside the black box. *RBI Bulletin*, Reserve Bank of India. Retrieved from <https://rbidocs.rbi.org.in>
- [7] Rigobon, R., & Sack, B. (2004). The impact of monetary policy on asset prices. *Journal of Monetary Economics*, 51(8), 1553–1575. <https://doi.org/10.1016/j.jmoneco.2004.02.004>
- [8] Singh, A., & Yadav, S. S. (2020). Monetary policy announcements and volatility in the Indian stock market: Evidence from India VIX. *Global Business Review*, 21(3), 743–760. <https://doi.org/10.1177/0972150918779154>