WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

EXPLORING THE NEXUS BETWEEN MONEY MARKET MOVEMENTS AND ECONOMIC GROWTH IN INDIA

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ABSTRACT :

The present study analyses the relationship and impact of money market movements and real economic growth in India. For the study, real GDP is considered as the dependent variable, and the money market rate, consumer price index and inflation are taken as independent variables. The study is purely based on the secondary data collected from the Reserve Bank of India and the Bankbazaar website from the period from 2015-2016 to 2024- 2025. Multiple correlation and regression are the statistical tools used for the analysis. The results show that money market rates have an impact on the real GDP in India.

Keywords: Macro economy, Real GDP, Money Market Rate, Consumer Price Index, and Inflation rate

Introduction

The foundation of a country's financial system is its money market, which ensures short-term liquidity to keep financial institutions and the whole economy running smoothly. The money market plays a significant role in developing nations like India because it affects investment flows, interest rates, credit availability, and, ultimately, economic activity. In recent years, monetary policy transmission mechanisms, regulatory reforms, and developing financial innovations have shaped the increasingly complicated relationship between money market movements and macroeconomic performance.

Since the liberalisation era, India's money market has experienced substantial change. The Reserve Bank of India (RBI) has been playing a crucial role in expanding and diversifying its instruments, including Treasury Bills, Certificates of Deposit, and repo and call money operations. As a result of these modifications, both the effectiveness of monetary policy and market efficiency have been increased. However, changes in money market conditions, such as short-term interest rate volatility or liquidity mismatches, can significantly affect inflation, investment decisions, and production. In emerging economies like India, the effectiveness of monetary policy interventions and macroeconomic stability are both influenced by how well these links work. Therefore, it is essential to understand these connections to assess the operation of monetary transmission channels and the relationship between financial stability and real-sector performance.

The study investigates the type and degree of the relationship between money market dynamics and actual economic activity in India. For analysis, Real GDP is treated as the dependent variable, and the Money Market Rate, Consumer Price Index, and Inflation Rate are treated as independent variables.

Review of Literature

Jadhav, 2005[1] explored how India's monetary system was influenced by liberalisation and evaluated the trade-offs between financial stability, economic growth, and price stability. The study used decadal data on critical macroeconomic indicators, including money supply, inflation, fiscal deficit, and GDP growth, to track the effects of policy through descriptive and time-series analysis. The Reserve Bank gradually transitioned from direct tools to market-based instruments, such as liquidity adjustment facilities and open market operations. One important conclusion is that India's monetary policy needs more liquid financial markets to guarantee efficient monetary transmission and steady macroeconomic results.

Dhal et al., 2011[2] investigated the connections among financial stability, economic growth, inflation, and monetary policy in India. In addition to macroeconomic factors like production and inflation, it uses a vector autoregression (VAR) model that includes a banking stability index derived from CAMEL (Capital, Asset quality, Management, Earnings, Liquidity) indicators. According to the analysis, there is a bidirectional causal relationship between macroeconomic indicators and financial stability, meaning that each has a major impact on the other. The findings imply that, particularly over

medium to longer time horizons, financial stability can maintain less persistent inflation while fostering stronger and more sustained economic growth. Additionally, it suggests that while financial stability promotes smoother growth and price stability, higher inflation or price instability may have a detrimental effect on financial stability. The study concludes by recommending further research, specifically the development of longer-term indices and the use of sophisticated econometric models, such as Bayesian VAR, to gain a deeper understanding.

Ghosh and Reitz 2012[3] examined the relationships between financial factors and the Real Financial Market Exchange Rates (RFMER) in India. The study recognises the need to focus on financial-adjusted exchange rates, as financial capital flows are becoming more significant than trade flows in emerging nations. To investigate both short-term and long-term relationships among variables, the researchers used econometric techniques such as Granger causality tests, correlation, cointegration analysis, and Vector Error Correction Models (VECM). According to the analysis, a substantial long-term correlation exists between RFMER and foreign institutional investment (FII), with evidence showing that capital inflows lead to asset price increases and currency appreciation. Expanding debt markets could improve RFMER's explanatory power and provide policymakers with more useful information. All things considered, the research provides insightful information on the intricate relationships that influence exchange rates in developing nations like India.

Ray & Vani, 2012[4] investigated the connection between the Indian stock market and actual economic factors in the years following the reform (1994–2003). Mainly focused on the macroeconomic variables affecting the Sensitive Index (Sensex) movement of the Bombay Stock Exchange. The researchers used sophisticated analytical techniques, including Artificial Neural Networks (ANN) and Vector Auto Regression (VAR), which are excellent at capturing nonlinear correlations, to accomplish this. Factors including the money supply, inflation rate, interest rates, industrial output, and currency rates had a significant impact on stock market patterns over this time. On the other hand, the market movements were barely affected by elements like the fiscal deficit and foreign institutional investment.

Mirchandani, 2013[5] analysed the macroeconomic factors that affect exchange rate volatility in India and comprehended how factors like GDP, trade balances, inflation, and interest rates affect exchange rate swings. The study primarily utilises secondary data from 1991 to 2010 and analyses correlations between variables using statistical tools, including Pearson's correlation analysis. Higher interest rates tend to depreciate the Rupee, according to the study, which shows a strong negative association between interest rates and the exchange rate. At the same time, there is a moderately negative link between inflation and changes in the currency rate. The results suggest that exchange rate volatility can be mitigated through macroeconomic stability, particularly by managing inflation and interest rates. The study emphasises that over time, measures like devaluation and liberalisation policies have influenced currency stability.

Kumar, 2014[6] analyzed the behavioural links between financial market indicators and macroeconomic variables, assessing volatility, efficiency, and liquidity, and determining the degree of market integration over the course of a decade. In terms of methodology, the study used the time series data retrieved from RBI databases, and used regression analysis, cross-correlation analysis, and stationarity tests such as the Dickey-Fuller test. The money, government securities, and forex markets are all quite liquid, according to the results. The money and government securities markets are less volatile but still vulnerable to shocks, whereas the forex and equities markets are more volatile because of external factors. According to the report, market integration is gradually increasing, indicating that India's financial markets are growing increasingly integrated over time.

Sinha et al., 2015[7] investigated the connection between India's post-liberalisation stock and credit markets and economic expansion between 1994 and 2010. To find long-term correlations and interactions between the variables, the researcher employs time-series analysis with a Vector Autoregression (VAR) model, supplemented by unit root tests and Johansen cointegration tests. The findings show that there is a single cointegrating relationship between financial activity and economic output and that all variables are stationary. According to the VAR results, there is a substantial positive correlation between GDP and stock market activity, with stock markets having a greater and longer-lasting impact on growth than credit markets. The significance of financial market integration for long-term economic growth in developing nations like India is emphasised in this study.

Joshi, 2016[8] examined the relationship between financial development and economic growth from 1991 to 2013 using secondary data from the websites of Asian Development Bank, Securities and Exchange Board of India, and Reserve Bank of India. It does this by using statistical tools like regression analysis, ratios, and percentages. The study shows a strong positive correlation between India's GDP per capita growth and financial deepening, as indicated by proxies such as the stock market capitalisation and the M2 (Near Money Assets)-to-GDP ratio. The post-1991 financial sector reforms enhanced financial intermediation, savings, and investment efficiency and eventually led to economic expansion. Overall, the study highlights how India's economic growth may be sustained and investment productivity increased with a stronger and more equitable financial sector.

Research Gap

In an economy, it is necessary to quantify the changes in money market indicators such as shifts in call money rates, treasury bill yields, or interbank lending rates. It is also essential to study how these indicators make a difference in actual economic development, which is still a challenge for empirical study in the Indian setting. To close this gap, this study employs regression analysis and correlation to scientifically examine the relationship between selected money market factors and actual economic growth in India. By doing this, it seeks to determine the degree, direction, and intensity of

the relationship between financial market signals and actual economic performance. It is anticipated that the results will provide empirical insights to inform future fiscal and monetary policy decisions, promoting stability and long-term growth.

Statement of the problem

Governor of the Reserve Bank of India (RBI), Sanjay Malhotra, opined on certain shortcomings of the Indian money market and recommended a monetary policy transmission (Malhotra, 2025). As a result, the RBI has recently extended the span of working hours of the money market. This makes enhanced liquidity, better price discovery and upliftment of money market standards to a global level (RBI extends money market trading hours, 2025).

Investment, consumption, and macroeconomic stability are all impacted by the money market's vital function in directing short-term capital and preserving liquidity in an economy. In the Indian context, actual economic growth measures like GDP, industrial output, and investment levels can be significantly impacted by changes in important money market indicators, including call money rates, treasury bill yields, and interbank lending rates. However, there is still a lack of empirical research on the nature and depth of this link in emerging market environments. By investigating the relationship and causality between short-term financial variables and real sector performance over time, this study aims to quantify the dynamic relationship between money market movements and real economic growth in India.

Despite its importance, changes in money market conditions frequently lead to volatility in borrowing prices and credit availability, which may have an impact on essential aspects of actual economic performance like capital formation, GDP growth, and industrial output. Policymakers, investors, and financial institutions must now understand the interaction between money market dynamics and growth indicators resulting from India's ongoing financial sector reforms and integration into international capital markets. The effectiveness of the monetary policy transmission mechanism and whether short-term money market volatility has a substantial impact on long-term economic fundamentals are called into doubt by the absence of consistent data. In this context, the researcher raises the following research question:

1. How much do changes in India's money market indicators affect actual economic growth, and what is the direction and intensity of this relationship?

Objectives of the study

The objectives of the study are:

1. To examine the relationship between money market movements and real economic growth in India.
2. To analyse the impact of money market movements on real economic growth in India.

Hypotheses of the study

The hypotheses of the study are:

H_{01}: There is no significant relationship between money market movements and real economic growth in India

H_{02}: Money market movements have no significant impact on real economic growth in India.

Research Methodology

The present study is analytical and based solely on secondary data collected from the Reserve Bank of India's website and Bankbazaar for the period from 2014-2015 to 2024-2025. Furthermore, data gathered from various articles, journals and newspaper write-ups were also used for this study. Multiple correlation and regression analyses are applied to analyse the relationship and impact of the variables.

Analysis and Interpretation

Table 1: Descriptive statistics of Money Market Movements and Real Economic Growth in India

Year	Real GDP (%)	Money Market Rate (Weighted Average)	CPI (Combined) (%)	Inflation Rate (%)
2015- 2016	7.6	7.6	4.9	4.9
2016- 2017	8.2	6.25	4.5	4.5
2017- 2018	7.2	6.0	3.6	3.6
2018- 2019	6.8	6.5	3.4	3.4
2019- 2020	3.7	5.15	4.8	4.8

2020- 2021	-6.6	4.0	6.2	6.2
2021- 2022	8.9	4.40	5.5	5.5
2022- 2023	7.6	6.25	6.7	6.7
2023- 2024	9.2	6.50	5.4	5.4
2024- 2025	6.5	6.0	4.6	4.6
Mean	**5.91**	**5.87**	**4.96**	**4.96**
Standard Deviation	**4.41**	**1.01**	**0.99**	**0.99**
Coefficient of Variation	**0.75**	**0.17**	**0.20**	**0.20**
CAGR	**-0.02**	**-0.02**	**-0.01**	**-0.01**

(Sources: Compiled by the researcher)

Table 1 demonstrates the results of descriptive statistics of money market movements and real economic growth rate from 2015- 2016 to 2024- 2025. Compound Annual Growth Rate is showing a negative position for all the variables.

Table 2: Correlation between Money Market Movements and Real Economic Growth

Correlations				
	Real GDP	Money Market Rate	Consumer Price Index	Inflation Rate
Real GDP	**1**			
Money Market Rate	**.623**	**1**		
Consumer Price Index	**-.314**	**-.355**	**1**	
Inflation Rate	**-.314**	**-.355**	**1.0**	**1**

*(**Source**: Computed data)*

The above table shows that the relationship between real GDP and money market rate is positive and moderately strong. The relationship between the inflation rate and the consumer price index shows perfect positive correlation. A positive link means that when the economy grows (higher GDP), interest rates in the money market also rise, typically because demand for credit and investment grows.

Regression Analysis for Money Market Movements and Real Economic Growth

Table 3: Model Summary for Money Market Movements and Real Economic Growth

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	**.631**	**.398**	**.226**	**4.09**

(Source: Computed data)

a. Predictors (Constant): Money Market Rate, Inflation Rate

b. Excluded variable: Consumer Price Index,

c. Dependent variable: Real GDP

The above table 3 indicates that R Value of .631 shows a moderate positive linear relationship between the predictors, such as money market rate and inflation rate, and Real GDP. R square value of .398 represents that 39 per cent changes in real GDP can be explained by the independent variables such as money market rate and inflation rate. Consumer Price Index (CPI) was not included in the model because its tolerance value reached 0.000, indicating perfect multicollinearity with another predictor.

Table 4: ANOVA table for Money Market Movements and Real Economic Growth

Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	**77.63**	**2**	**38.81**	**2.31**	**.169**
Residual	**117.27**	**7**	**16.75**		
Total	**194.90**	**9**			

(Source: Computed data)

a. Predictors (Constant): Money Market Rate, Inflation Rate

b. Excluded variable: Consumer Price Index,

c. Dependent variable: Real GDP

Table 4 displays the ANOVA table for Money Market Movements and Real Economic Growth in India. Here, the P Value is 0.169, hence the null

hypothesis is accepted. This indicates that there is not that much significant impact of money market movements on real GDP in India.

Table 5: Coefficients table for Money Market Movements and Real Economic Growth

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	**-6.66**	**12.40**		**-.537**	**.608**
Money Market rate	**2.54**	**1.365**	**.585**	**1.86**	**.104**
Inflation Rate	**-.478**	**1.40**	**-.107**	**-.340**	**.744**

(Source: Computed data)

Table 5 presents the coefficient table for money market movements and real GDP growth rate in India. This table displays that, all the P Values are accepted, hence there is no significant impact of money market movements on real GDP.

Findings and Suggestions

The regression model indicates a positive association between the Money Market Rate and Real GDP (coefficient 2.548, p=0.104), suggesting that higher rates might support growth, though this is not statistically significant at the 5 per cent level. The Reserve Bank of India should focus on maintaining stable money-market rates to strengthen GDP growth. Incorporate initiatives to expand financial inclusion, such as broadening access to digital banking, to enhance the impact of money markets on real activity.

Conclusion

The study concludes that fluctuations in money market rates have a modest impact on real economic activity, particularly on GDP growth. An efficient functioning of the money market enables effective fund channelling, thereby supporting business activities and consumption that foster economic growth. Since inflation dynamics do not strongly determine GDP fluctuations, it is essential to maintain balanced monetary conditions rather than focusing solely on price levels. The omission of closely related inflation measures, such as the Consumer Price Index, underscores the need to select the most representative indicators for economic analysis. The broader economic advancement relies on various interconnected factors, such as the state of financial markets, credit availability, and investment trends. By broadening participation in financial systems, policies that promote financial inclusion can strengthen the link between money markets and economic growth. Stable money-market rates that align with economic growth goals can boost liquidity while maintaining demand. Future growth strategies should integrate monetary policy with initiatives to enhance financial literacy and infrastructure, thereby fostering sustainable development. The research emphasises the critical yet complicated influence of developments in the financial sector on actual economic results in emerging markets such as India. To ensure ongoing economic growth, it is crucial to adopt a holistic strategy that incorporates monetary stability, inclusive finance, and a variety of economic drivers.

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