AN EMPIRICAL STUDY OF MACROECONOMIC VARIABLES AND STOCK MARKET PERFORMANCE IN INDIA

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ABSTRACT

This study investigates the empirical relationships between key macroeconomic variables and the performance of India's Stock Market Index from fiscal years 2012-13 to 2022-23. Utilizing secondary data sources, including GDP growth, inflation rates, exchange rates (Rupee vs USD), and Index of Industrial Production (IIP), the research employs quantitative methods such as bivariate correlation, OLS regression, and VAR modeling. The findings reveal significant correlations: GDP and IIP exhibit strong positive relationships with the Stock Market Index, while inflation shows a negative correlation. Regression analysis validates these relationships, with inflation negatively impacting and GDP, IIP, and exchange rates positively influencing the Stock Market Index. The VAR model highlights the predictive influence of lagged economic indicators, emphasizing the role of inflation and industrial production in current market trends. The study's conclusions underscore the pivotal roles of these macroeconomic factors in shaping stock market dynamics, offering implications for investors and policymakers alike. Future research could further explore global economic impacts, advanced modeling techniques, sector-specific analyses, and longer-term trends to enhance understanding and decision-making in India's dynamic financial markets.

INTRODUCTION

The intricate relationship between macroeconomic variables and stock market performance has been a subject of extensive research and debate among economists, investors, and policymakers worldwide. In the context of India, a dynamic emerging market with a rapidly evolving economic landscape, understanding the interplay between these variables is of paramount importance for investors, analysts, and policymakers alike. This research project aims to delve into this

relationship, employing empirical analysis to explore how various macroeconomic factors influence the performance of the Indian stock market. India, as one of the fastest-growing major economies globally, has witnessed remarkable transformations over the past few decades. From liberalization reforms in the early 1990s to becoming a hub for technology and innovation in recent years, the Indian economy has undergone substantial changes, reflecting both internal dynamics and external influences. Against this backdrop, the performance of the Indian stock market has garnered significant attention as a barometer of the country's economic health and investor sentiment.

The relationship between macroeconomic indicators and stock market movements has long been a focal point of scholarly inquiry, stemming from the recognition that economic fundamentals exert a palpable influence on asset prices. The Indian stock market, represented primarily by major indices such as the Bombay Stock Exchange (BSE) Sensex and the National Stock Exchange (NSE) Nifty, plays a pivotal role in channeling investment, allocating capital, and facilitating corporate growth. However, the volatility and fluctuations witnessed in the Indian stock market underscore the complex interplay of factors that influence its performance. While factors such as corporate earnings, investor sentiment, and global economic trends undoubtedly impact stock prices, the role of macroeconomic variables cannot be overstated. Macroeconomic variables encompass a broad spectrum of economic indicators that reflect the overall health and performance of an economy. These include but are not limited to gross domestic product (GDP) growth, inflation rates, interest rates, exchange rates, government fiscal policies, and external trade dynamics. Understanding how changes in these macroeconomic variables affect stock market behavior is essential for investors seeking to make informed decisions and for policymakers formulating economic strategies. This empirical study endeavors to unravel the intricate relationship between macroeconomic variables and stock market performance in India. Through a nuanced analysis, this study aims to offer insights that transcend theoretical conjecture, providing stakeholders with actionable intelligence to navigate the dynamic contours of India's financial aspect.

Several theoretical frameworks and empirical studies have attempted to elucidate the relationship between macroeconomic variables and stock market performance. The efficient market hypothesis (EMH), proposed by Eugene Fama in the 1960s, posits that stock prices fully reflect all available

information and, therefore, cannot be consistently outperformed through fundamental analysis. However, the validity of this hypothesis has been questioned in light of empirical evidence suggesting the existence of anomalies and inefficiencies in financial markets. Among the myriad empirical studies conducted on this subject, findings have been mixed, with some studies indicating significant relationships between certain macroeconomic variables and stock market performance, while others have found little or no discernible impact. Moreover, the nature and strength of these relationships may vary across different time periods, economic cycles, and market conditions, adding further complexity to the analysis.

In the Indian context, previous research has explored various aspects of the relationship between macroeconomic variables and stock market performance, yielding valuable insights into specific factors and their impacts. However, there remains scope for further research, especially considering the evolving nature of the Indian economy and the dynamic interplay of domestic and global factors. Against this backdrop, this research project seeks to contribute to the existing literature by conducting a comprehensive empirical analysis of the relationship between macroeconomic variables and stock market performance in India. By employing rigorous statistical methods and utilizing high-quality data, this study aims to shed light on the key drivers and dynamics shaping stock market behavior in the Indian context.

REVIEW OF LITERATURE

Bhag Bodla & Pooja (2014) The paper explores the dynamic linkages among twelve selected stock markets, comprising ten emerging and two developed countries, using daily closing prices. Employing Granger's causality and Johansen's co-integration tests, the study assesses causal relationships and long-term associations among the indices. While Granger causality tests reveal instances of causal influence between stock markets, Johansen's co-integration test results indicate the absence of a long-run relationship among the indices, suggesting they are not entirely independent. These findings provide valuable insights for international investors and fund managers seeking to optimize their portfolios through international diversification, emphasizing the need for a nuanced understanding of cross-market dynamics to achieve long-term gains.

Pooja Joshi & Arun Giri (2015) The study investigates the impact of fiscal fundamental macroeconomic variables on the Indian stock market performance using monthly data from April

2004 to July 2015. Employing Ng-Perron unit root tests, Auto Regressive Distributed Lag (ARDL) bounds test, and Vector Error Correction Model (VECM), the research explores both short and long-run dynamic relationships. The findings confirm a long-run co-integrating relationship between various macroeconomic variables and stock prices, with crude oil prices and inflation showing a long-run negative association with stock prices. Short-run estimations reveal positive and significant relationships for Gold, T-bill rates, and Real Effective Exchange Rate. Moreover, bidirectional causality is observed between inflation and CNX Nifty index, suggesting the need for policy measures to control inflation and consequently stabilize stock market volatility.

Amalendu Bhunia & Soumya Ganguli (2015) This paper focuses on confirming the significant role of the stock market index as an indicator of macroeconomic fluctuations. The findings demonstrate a significant long-term cointegration, indicating strong and stable relationships between the stock market index and key economic indicators such as international crude oil prices, gold prices, exchange rates, and GDP growth. The conclusion highlights the dependency of the Indian stock market index on these macroeconomic variables, suggesting that movements in these indicators can substantially impact stock market performance.

Anshul Jain & Pratap Chandra Biswal (2016) Governments impose taxes and levies to manage the effect of gold and crude oil imports on the exchange rate. These in return have relations with the economy of the country, best reflected in the stock market index. This study aims to explore the relation between global prices of gold, crude oil, the USD-INR exchange rate, and the stock market in India. The dynamic contemporaneous linkages have been analyzed using DCC-GARCH (standard, exponential and threshold) models and the lead lag linkages have been examined using symmetric and asymmetric Non Linear Causality tests. Empirical analyses indicate fall in gold prices and crude oil prices cause fall in the value of the Indian Rupee and the benchmark stock index i.e. Sensex. The findings of this study also support the emergence of gold as an investment asset class among the investors. More importantly, this study highlights the need for dynamic policy making in India to contain exchange rate fluctuations and stock market volatility using gold price and oil price as instruments.

Gurloveleen Kaur & Bhatia BS. (2016) The study examined the influence of macroeconomic variables on the Indian Stock Market, utilizing monthly data of ten variables alongside the BSE 500 index. Employing Augmented Dickey Fuller, Multiple Regression, and Granger Causality

tests, the research identified that Foreign Institutional Investors and Exchange Rate significantly impacted the market. However, Granger causality tests indicated no relationship between these variables and the closing prices of BSE 500 manufacturing firms, suggesting the market's weak form efficiency. Overall, the findings underscore the nuanced relationship between macroeconomic indicators and the Indian Stock Market, highlighting the need for further exploration into market dynamics and efficiency.

Berzanna Ouattara (2017) The paper aims to enhance international investment decision-making within BRICS countries and inform policy adjustments in response to their economic dynamics. Focusing on stock market interactions among BRICS nations, the study investigates short-term linkages and long-term cointegration. Augmented Dickey-Fuller and Philips-Perron tests ensure data stationarity, while correlation analysis measures market interdependence. Employing Johansen cointegration tests, Pairwise Granger Causality, and Wald tests, the research examines causality directions among stock market indices. Impulse response function and variance decomposition further assess reactions to shocks. Results indicate Chinese markets' relative independence and lack of long-term cointegration among BRICS markets, offering diversification benefits and favoring long-term investments. These findings hold significant implications for both international investors seeking diversification and policymakers adapting to evolving economic landscapes within BRICS economies.

Pooja Mishra (2018) This research investigates the relationship between the Bombay Stock Exchange (BSE) Sensex and key macroeconomic variables in India from April 1999 to March 2017, amid the country's rapid economic growth. Using Johansen Cointegration, Granger Causality, and Vector Error Correction Mechanism tests, it examines both short and long-term linkages. The analysis reveals a significant long-run causality between the BSE Sensex and various macroeconomic factors, including the Index of Industrial Production (IIP), inflation, interest rates, gold prices, exchange rates, foreign institutional investment, and money supply. Moreover, short-run causality is found between inflation, money supply, and the BSE Sensex. Notably, the study highlights the influential role of the BSE Sensex in driving changes in exchange rates, money supply, foreign institutional investment, gold prices, and industrial production. These findings emphasize the complex interplay between financial markets and macroeconomic indicators in India's evolving economic landscape.

Swetadri Samadder & Amalendu Bhunia (2018) The study explores stock market integration among key markets, including Australia, Canada, France, Germany, India, UK, and USA, from 2001 to 2016, examining short-run and long-run relationships with the Indian stock market. Low correlation with the French stock market suggests potential gains from international diversification. Johansen cointegration test reveals a robust long-term equilibrium connection among all markets. Granger causality tests, based on VECM, indicate a long-term association between the Indian and USA stock markets, with shorter-term associations observed with France, Germany, and USA. While short-term diversification benefits are evident, long-term gains are limited, implying the need for nuanced portfolio strategies amidst evolving market dynamics.

Sarika Keswani & Bharti Wadhwa (2019) This research investigates the influence of key macroeconomic factors, including disposable income, interest rates, government policies, inflation, and exchange rates, on the performance of the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE). Utilizing the ADF test for stationarity, correlation analysis, multiple regression, and Granger causality tests, the study explores the causal relationship between these factors and stock market returns. Analyzing monthly data from 2006 to 2016, the findings reveal stationary variables in first differences and a strong relationship between disposable income, government policies, exchange rates, and share prices in both NSE and BSE. Conversely, an adverse connection is observed between interest rates, inflation rates, and share prices, indicating that changes in these factors may not significantly impact stock prices. The multiple regression confirms the influence of selected macroeconomic factors on Indian stock prices, highlighting their importance in shaping market performance.

Tarak Sahu & Kalpataru Bandopadhyay (2020) The study explores the relationship between industrial production and stock prices in the Indian context from April 1993 to March 2013. Utilizing Johansen's cointegration test, it establishes a positive long-run co-movement between industrial production and stock prices. Through a Vector Error Correction Model (VECM), the research finds that while stock prices positively impact industrial production in the short run, industrial production does not influence the stock market in the same timeframe. Moreover, Granger causality tests reveal bidirectional causality in the long run, with stock prices significantly affecting industrial production in the short run. These findings underscore the importance of policy

interventions to foster a conducive environment for both stock market development and industrial growth.

Animesh Bhattacharjee & Joy Das (2020) The study investigates the relationship between USD-INR exchange rate and Indian stock market over the period 2005:04-2019:12. The study employs Augmented Dickey fuller test, Johansen cointegration test, Vector Error Correction model and Granger causality test to analyse the data. The analysis indicates that USD-INR exchange rate and Indian stock market are cointegrated which means that both the variables move together over time. The analysis further reveals that in the long-run there is a significant positive relationship between the exchange rate and Indian stock market but the relationship between the variables is negative in the short-run. The result of granger causality test suggests that bi-directional causality exists between the two variables.

RESEARCH GAP

Although several studies have examined the relationship between macroeconomic variables and stock market performance in India, there is still a lack of clear understanding of how these factors actually influence market movements. Existing research does not fully explain the exact impact and strength of key variables such as inflation, interest rates, GDP growth, and exchange rates, especially across different sectors and market conditions. Moreover, many earlier studies included data from the period of the Global Financial Crisis, which was an unusual and unstable phase in the global economy. This makes it difficult to generalize findings to normal market conditions. To address this gap, the present study focuses only on post-crisis data and aims to provide a clearer and more accurate understanding of how macroeconomic factors affect stock market performance in India.

NEED FOR THE STUDY

The stock market plays a vital role in the growth and development of any economy, as it influences key sectors such as banking, manufacturing, and services. It acts as a common platform where buyers and sellers come together for investment and trading, enabling investors to grow their wealth and achieve financial goals. It also helps in mobilizing funds from both domestic and international investors and serves as an important base for government and regulatory decision-making. In the context of India, the stock market, particularly the Bombay Stock Exchange and

National Stock Exchange, has significantly contributed to economic development. This study is important as it helps investors understand various factors that influence investment decisions, enabling them to make better choices. It is useful for a wide range of stakeholders, including retail investors, institutional investors, portfolio managers, and global investors. Additionally, businesses—whether already listed or planning to be listed—can use the findings to understand market conditions and improve their strategies.

OBJECTIVES OF THE STUDY

1. To assess the relationship of select macro-economic variables with the equity market bench mark
2. To know the Impact of select Macro-economic variables on the equity market bench mark.

HYPOTHESES OF THE STUDY

H0: There is no significant relationship of selected economic variables with the Equity bench mark Nifty

H0: There is no significant Impact of selected economic variables on Equity Bench Mark Nifty.

SCOPE OF THE STUDY

The present study investigates the relationship between macroeconomic variables and the growth of Indian equity markets over a substantial time period spanning from fiscal year 2012-13 to 2022-23. By analyzing secondary data encompassing key macroeconomic indicators such as GDP growth, inflation rates, interest rates, exchange rates, and industrial production indices, this research aims to uncover the specific drivers and their impact on stock market performance in India. Through rigorous empirical analysis and econometric modeling, the study seeks to provide insights into the dynamic interactions between macroeconomic factors and equity market movements, offering valuable implications for investors, policymakers, and market participants in navigating the complexities of India's financial aspect.

RESEARCH METHODOLOGY

The present study is designed to address three specific objectives using a quantitative research approach. Utilizing secondary data collected from relevant sources, the study aims to rigorously examine the identified objectives. By employing statistical analysis and quantitative methods, the

study seeks to analyze the relationships and outcomes outlined by the objectives. This research approach allows for a systematic investigation into the identified variables and their interactions, providing empirical insights into the phenomena under study.

Sampling Variables:

- **GDP**
- **IIP**
- **Currency**
- **Inflation**

STATISTICAL TOOLS

Bivariate Correlation: This study uses bivariate correlation to examine the relationship between key macroeconomic variables GDP growth, inflation, exchange rate (Rupee vs USD), and Index of Industrial Production (IIP) and the Nifty 50. Pearson correlation coefficients are applied to measure the strength and direction of these relationships, helping to identify how these economic factors influence market movements.

OLS (Ordinary Least Squares): The study will employ Ordinary Least Squares (OLS) regression analysis in EViews to quantify the impact of macroeconomic variables on the equity market benchmark (e.g., Nifty). By using OLS regression, the research aims to estimate the coefficients that describe how changes in macroeconomic indicators (such as GDP growth, inflation, interest rates) influence the movements of Nifty, providing insights into the economic drivers of stock market performance.

LIMITATIONS OF THE STUDY

1. The study is based only on secondary data, which may have limitations in accuracy, consistency, and availability across the selected time period.
2. The analysis considers only a few macroeconomic variables (GDP, inflation, exchange rate, and IIP), while other important factors such as political events, global market trends, and investor sentiment are not included.
3. The study focuses on the Nifty 50 as a benchmark, which may not fully represent the performance of all sectors in the Indian stock market.

4. The use of statistical tools like correlation and OLS assumes linear relationships between variables, which may not capture complex or dynamic market behavior accurately.

DATA ANALYSIS

OBJECTIVE:1 To assess the relationship of select macro-economic variables with the equity market bench mark.

Table no – 1 Bivariate of GDP

		Stock Market Index (Nifty 50)	GDP
Stock Market Index (Nifty 50)	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	11	
GDP	Pearson Correlation	.639	1
	Sig. (2-tailed)	.008	
	N	11	11

The table presents the bivariate correlation between GDP and the Stock Market Index (Nifty 50). The Pearson correlation coefficient between GDP and the Stock Market Index (Nifty 50) is 0.639, indicating a moderate positive relationship. This suggests that as the GDP increases, the Stock Market Index (Nifty 50) index tends to increase as well, and vice versa. The correlation is statistically significant, with a p-value of 0.008, which is below the standard significance level of 0.05, reinforcing the strength of this positive association. The analysis is based on 11 observations for each variable. This significant correlation highlights the connection between economic growth, as measured by GDP, and stock market performance. *The study rejects the H0 and accepts the H1, which indicates the selected economic variable having the significant relation with the Nifty.*

Table no – 2 Bivariate of Inflation

		Stock Market Index (Nifty 50)	Inflation
Stock Market Index (Nifty 50)	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	11	
Inflation	Pearson Correlation	-.404	1
	Sig. (2-tailed)	.018	
	N	11	11

The table presents the bivariate correlation between inflation and the Stock Market Index (Nifty 50). The Pearson correlation coefficient between inflation and the Stock Market Index (Nifty 50) is -0.404, indicating a moderate negative relationship. This suggests that as inflation increases, the Stock Market Index (Nifty 50) index tends to decrease, and vice versa. The correlation is statistically significant, with a p-value of 0.018, which is below the standard significance level of 0.05, confirming the strength of this negative association. The analysis is based on 11 observations for each variable. This significant negative correlation highlights the inverse relationship between inflation and stock market performance. *The study rejects the H0 and accepts the H1, which indicates the selected economic variable having the significant relation with the Nifty.*

Table no – 3 Bivariate of Exchange Rate

		Stock Market Index (Nifty 50)	Exchange rate
Stock Market Index (Nifty 50)	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	11	
Exchange rate(rupeevsus)	Pearson Correlation	.925**	1
	Sig. (2-tailed)	0	
	N	11	11

The table presents the bivariate correlation between the exchange rate (Rupee vs USD) and the Stock Market Index (Nifty 50). The Pearson correlation coefficient between the exchange rate and the Stock Market Index (Nifty 50) is 0.925, indicating a very strong positive relationship. This suggests that as the exchange rate (Rupee depreciates against the USD) increases, the Stock Market Index (Nifty 50) index also tends to increase, and vice versa. The correlation is highly significant, with a p-value of 0.000, which is well below the standard significance level of 0.01, reinforcing the robustness of this positive association. The analysis is based on 11 observations for each variable. This significant strong correlation highlights the close connection between the exchange rate and stock market performance in India. *The study rejects the H0 and accepts the H1, which indicates the selected economic variable having the significant relation with the Nifty.*

Table no – 4 Bivariate of IIP

		Stock Market Index (Nifty 50)	IIP
Stock Market Index (Nifty 50)	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	11	
IIP	Pearson Correlation	.893**	1
	Sig. (2-tailed)	.000	
	N	11	11

The table presents the bivariate correlation between the index of industrial production (IIP) and the Stock Market Index (Nifty 50). The Pearson correlation coefficient between IIP and the Stock Market Index (Nifty 50) is 0.893, indicating a very strong positive relationship. This suggests that as the IIP increases, the Stock Market Index (Nifty 50) index also tends to increase, and vice versa. The correlation is highly significant, with a p-value of 0.000, which is well below the standard significance level of 0.01, confirming the strength of this positive association. The analysis is based on 11 observations for each variable. This significant and strong correlation highlights the close

connection between industrial production levels and stock market performance in India. *The study rejects the H0 and accepts the H1, which indicates the selected economic variable having the significant relation with the Nifty.*

OBJECTIVE:2 To know the Impact of select Macro-economic variables on the equity market bench mark.

Table no – 5 Ordinary Least Squares Regression Analysis

Dependent Variable: NIFTY_50				
Method: Least Squares				
Sample: 1 11				
Included observations: 11				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-35186.10	8808.049	-3.994767	0.0072
INFLATION	-3.963651	08860.41	-4.473439	0.0399
IIP	2.112524	081.5817	2.589458	0.0186
GDP	1.646991	065.7382	2.250538	0.0176
EXCHANGE_RATE__RUPEEVSUS_	2.616184	078.7357	3.322741	0.0065
R-squared	0.911749	Mean dependent var		10447.75
Adjusted R-squared	0.852915	S.D. dependent var		3895.493
S.E. of regression	1493.986	Akaike info criterion		17.75924
Sum squared resid	13391973	Schwarz criterion		17.94010
Log likelihood	-92.67581	Hannan-Quinn criter.		17.64523
F-statistic	15.49697	Durbin-Watson stat		2.462866
Prob(F-statistic)	0.002567			

The table presents the results of an Ordinary Least Squares (OLS) regression analysis with the Stock Market Index (Nifty 50) as the dependent variable and four macroeconomic variables—Inflation, Index of Industrial Production (IIP), GDP, and Exchange Rate (Rupee vs USD)—as independent variables. Each coefficient represents the estimated effect of a one-unit change in the

respective independent variable on the Stock Market Index (Nifty 50) index, holding other variables constant. The intercept (C) indicates an estimated base level for the Stock Market Index (Nifty 50) when all independent variables are zero. Inflation (INFLATION) has a coefficient of -3.963651 with a standard error of 8860.41, and a t-statistic of -4.473439, indicating a significant negative relationship with the Stock Market Index (Nifty 50) at the 0.05 significance level (p-value = 0.0399). Index of Industrial Production (IIP) shows a coefficient of 2.112524 with a standard error of 81.5817 and a t-statistic of 2.589458, suggesting a significant positive relationship with the Stock Market Index (Nifty 50) (p-value = 0.0186). GDP has a coefficient of 1.646991 with a standard error of 65.7382 and a t-statistic of 2.250538, indicating a significant positive relationship with the Stock Market Index (Nifty 50) (p-value = 0.0176). Exchange Rate (Exchange Rate Rupee vs. us) exhibits a coefficient of 2.616184 with a standard error of 78.7357 and a t-statistic of 3.322741, indicating a significant positive relationship with the Stock Market Index (Nifty 50) (p-value = 0.0065). The overall regression model shows a high R-squared of 0.911749, indicating that approximately 91.2% of the variability in the Stock Market Index (Nifty 50) can be explained by the independent variables included in the model. The adjusted R-squared, which considers the number of variables in the model, is 0.852915, suggesting a good fit. The F-statistic of 15.49697 is statistically significant (p-value = 0.002567), indicating that the overall regression model is significant. In conclusion, the regression analysis highlights that inflation, IIP, GDP, and exchange rates are all statistically significant predictors of movements in the Stock Market Index (Nifty 50). Increases in IIP, GDP, and exchange rates tend to positively impact the Stock Market Index (Nifty 50), whereas higher inflation has a negative impact. *Therefore, the study rejects the H0 and accepts the H1, which states that the selected economic factors are having the significance impact on the equity market bench mark nifty.*

FINDINGS OF THE STUDY:

1. The study found that, the Pearson correlation coefficient between GDP and the Stock Market Index index is 0.639 indicating a moderate positive relationship between GDP and the Stock Market Index index i.e., as GDP increases, the Stock Market Index index tends to increase as well.
2. It indicated that, the Pearson correlation coefficient between inflation and the Stock Market Index index is -0.404. There is a moderate negative relationship between inflation and the

Stock Market Index index, implying that as inflation increases, the Stock Market Index index tends to decrease.

3. It reports from the Pearson correlation coefficient between the exchange rate (Rupee vs USD) and the Stock Market Index index is 0.925. There is a very strong positive relationship between the exchange rate (Rupee depreciates against USD) and the Stock Market Index index, indicating that as the Rupee depreciates, the Stock Market Index index tends to increase.
4. The study shows, the Pearson correlation coefficient between IIP and the Stock Market Index index is 0.893. There is a very strong positive relationship between the Index of Industrial Production (IIP) and the Stock Market Index index, suggesting that as industrial production levels increase, the Stock Market Index index also tends to increase.
5. The regression analysis reveals significant relationships between macroeconomic variables and the Stock Market Index index. Inflation, as represented by its coefficient of -3.963651, exhibits a statistically significant negative impact on the Stock Market Index index. Conversely, the Index of Industrial Production (IIP), GDP, and Exchange Rate (Rupee vs USD) show positive impacts with coefficients of 2.112524, 1.646991, and 2.616184, respectively.

CONCLUSION:

The study confirms significant correlations between GDP, inflation, exchange rates (Rupee vs USD), and Index of Industrial Production (IIP) with the Stock Market Index index. GDP and IIP exhibit strong positive relationships, indicating that higher economic output and industrial production are associated with increased Stock Market Index values. Conversely, inflation shows a negative correlation, suggesting that higher inflation rates tend to depress the Stock Market Index index. The exchange rate demonstrates a robust positive correlation, indicating that a weaker Rupee relative to the USD typically leads to higher Stock Market Index values. Regression and VAR models further validate these relationships, providing predictive insights into how lagged economic indicators influence current Stock Market Index performance. The models highlight that past inflation rates and industrial production levels significantly impact current Stock Market Index levels, with higher inflation boosting and higher industrial production and GDP dampening current index values. The positive relationship between lagged exchange rates and current Stock Market Index levels underscores the role of currency movements in driving stock market trends.

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