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Impact of Inflation Stock Market Returns

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Abstract:

This research paper examines the impact of inflation on stock market returns, focusing on the Indian stock market. Utilizing a comprehensive methodological approach, we analyse the relationship between inflation and stock market performance through various quantitative techniques including trend analysis, regression analysis, histograms, growth percentage models, and descriptive statistics.

The trend analysis reveals patterns and shifts in stock market returns in response to changing inflation rates. Regression analysis is employed to quantify the strength and nature of the relationship between inflation and stock market returns, providing insights into the degree to which inflationary pressures affect market performance.

The findings of this study indicate a multifaceted relationship between inflation and stock market returns. While high inflation periods generally correlate with increased market volatility and lower returns, the impact varies across different sectors and economic conditions. Our analysis also includes the significance of monetary and fiscal policies in moderating the effects of inflation on the stock market.

This research contributes valuable insights for investors, policymakers, and financial analysts, by having a detailed analysis of Inflation-Stock market study. The study's results can inform investment strategies and policy decisions aimed at mitigating the adverse effects of inflation on stock market performance and enhancing market resilience.

The purpose of the study is to investigate he correlation, understand the investor behaviour and recommend the insights from the study.

1. Introduction

The Indian stock market, comprising major indices like the Bombay Stock Exchange (BSE) Sensex and the National Stock Exchange (NSE) Nifty 50, serves as a crucial mechanism for productive investments, thereby fostering economic development. However, its performance is susceptible to various macroeconomic factors, with inflation being one of the most influential.

Inflation is a critical economic indicator that reflects the rate at which the general level of prices for goods and services rises, subsequently eroding purchasing power. In India, a rapidly developing economy, the dynamics of inflation are particularly significant, as they influence various factors of economic stability and growth.

1.1 Market Structure

The Indian stock market operates through two primary segments:

- Primary Market: This is where companies issue new securities to raise capital. The primary market includes Initial Public Offerings (IPOs), where companies offer shares to the public for the first time, and Follow-on Public Offerings (FPOs).
- Secondary Market: Once securities are issued in the primary market, they are traded in the secondary market. The BSE and NSE are the main platforms for secondary market trading. Key indices representing the market performance include the BSE Sensex and NSE Nifty 50.

1.2 Key Indices

- BSE Sensex: This index comprises 30 of the largest and most actively traded stocks on the BSE. It serves as a barometer for the overall performance of the Indian stock market.
- NSE Nifty 50: This index includes 50 major stocks from various sectors, providing a comprehensive overview of the market's performance.

1.3 Market Participants

The Indian stock market comprises various participants, including retail investors, institutional investors, Foreign Institutional Investors (FIIs), and mutual funds. Each group plays a vital role in the market's liquidity and depth.

- Retail Investors: Individuals who invest in stocks and other securities for personal growth and savings.
- Institutional Investors: Entities such as banks, insurance companies, and pension funds that invest large sums of money in the market.
- FIIs: Foreign entities that invest in Indian stocks, significantly influencing market dynamics.
- Mutual Funds: Investment vehicles that pool money from multiple investors to invest in diversified portfolios of securities.

1.4 Regulatory Framework

The Securities and Exchange Board of India (SEBI) is the primary regulatory body overseeing the Indian stock market. SEBI's objectives include protecting investor interests, promoting fair and transparent market practices, and regulating market intermediaries. Key regulations introduced by SEBI include:

- Insider Trading Regulations: Preventing unfair practices by individuals with access to non-public information.
- Disclosure Requirements: Mandating timely and accurate disclosure of financial and operational information by listed companies.
- Market Intermediary Regulations: Governing the conduct of brokers, sub-brokers, and other market participants.

1.5 Challenges and Opportunities

The Indian stock market faces several challenges, including:

- Market Volatility: Economic uncertainties, geopolitical tensions, and global market trends contribute to volatility.
- Regulatory Compliance: Ensuring compliance with stringent regulations can be challenging for companies and market participants.
- Financial Literacy: Enhancing financial literacy among retail investors is crucial for informed decision-making.

1.6 Relationship between Inflation and stock market returns:

The relationship between inflation and stock market in India is multifaceted and is influenced by many factors including the economy, specific markets and international markets. Although, high inflation has a negative impact on the stock markets due to increased cost and reduced profits for companies, the impact of this effect is different from business and time. Understanding this relationship is important for investors, policy makers and economists to explore the complexities of the Indian stock market and make informed decisions.

2. Literature review:

The relationship between inflation and stock market returns has long been a subject of significant interest in financial economics, particularly within emerging markets like India. This review synthesizes recent research on this topic, focusing on the impact of inflation on major Indian stock indices (Sensex and Nifty) while considering the role of critical economic indicators like GDP growth and interest rates. The aim is to explore the current state of knowledge, methodologies used, and areas for further research.

1. Theoretical Perspectives on Inflation and Stock Market Returns

Theoretically, the impact of inflation on stock market returns is complex and often inconsistent. Classical economic theories, such as the *Fisher Hypothesis*, argue that stock returns should theoretically adjust to inflation, as equities represent claims on real assets whose values should rise with inflation (Fisher, 1930). In this view, stocks could serve as a hedge against inflation. However, empirical studies, especially in emerging markets like India, often show an inverse relationship, suggesting that inflation erodes stock returns due to its effect on consumer purchasing power, company costs, and investor sentiment.

2. Empirical Studies on Inflation and Indian Stock Markets

Recent studies examining the Indian stock market frequently find a negative correlation between inflation and stock market returns, particularly during high-inflation periods. For instance, Choudhry (2001) found that inflation negatively impacts stock returns, especially in emerging markets, as inflation reduces disposable income and corporate profits. Additionally, research by Ahmed (2018) on the Sensex and Nifty indices highlighted that high inflation periods often correspond with declining stock market returns, as inflationary pressures lead to higher interest rates and borrowing costs, ultimately reducing business investment and profitability.

3. Methodologies Employed in Research

To explore the inflation-stock market relationship, various methodologies are applied:

- **Correlation Analysis**: Correlation is commonly used to examine the strength and direction of the relationship between inflation rates and stock market indices such as the Sensex and Nifty. Empirical studies often report a weak to moderate negative correlation between these variables. This relationship varies depending on external factors like global economic conditions, government policies, and inflation volatility. For example, a study by Kumar and Gupta (2019) found that while inflation has a generally negative correlation with stock returns, this effect is less pronounced in low-inflation periods.
- **Regression Analysis**: Regression models are used to assess causation beyond simple correlation. Many researchers employ multivariate regression, where inflation is considered alongside other macroeconomic variables such as GDP growth and interest rates to isolate its effect on stock returns. Results indicate that while inflation alone may not have strong predictive power, its effect becomes significant when combined with interest rates and GDP growth (Ramanathan & Dutta, 2020). These findings suggest a conditional relationship in which inflation's impact on stock returns is modulated by other economic factors.
- **Time Series Analysis**: Time series models, such as Vector Autoregressive (VAR) models and Cointegration Analysis, are particularly popular for exploring long-term relationships and dynamic interactions. These techniques help assess if a long-run equilibrium exists between inflation and stock market returns. For instance, Shah and Singh (2021) used a VAR model to show that high inflation periods correspond with lower stock returns over time, pointing to a long-run inverse relationship. Their study also employed Granger causality tests, indicating that past values of inflation could predict future stock returns, albeit weakly. Seasonal adjustments and filters, like the Hodrick-Prescott filter, are often used in time series analysis to reduce noise and improve accuracy.

4. Role of Other Economic Indicators

Economic indicators such as GDP growth and interest rates are often included as control variables in research to contextualize the inflation-stock market relationship:

- **GDP Growth**: The inclusion of GDP as a control variable often reveals that while inflation negatively impacts stock returns, economic growth has an offsetting positive effect. Studies by Iyer and Shankar (2020) suggest that periods of high GDP growth can counterbalance inflationary effects on stock returns, as corporate profits tend to rise during economic expansion.
- **Interest Rates**: Given that higher inflation typically leads to higher interest rates, research frequently explores this connection as well. Higher interest rates can depress stock market returns by raising corporate borrowing costs and reducing the present value of future earnings. This finding is evident in studies by Patel (2019), who demonstrated that both inflation and rising interest rates negatively influence stock returns, though interest rates often have a more pronounced effect in high-inflation environments.

5. Key Findings and Observations

Empirical research largely supports the view that inflation negatively impacts Indian stock market returns, especially in the short term. High inflation typically reduces corporate earnings and investor purchasing power, leading to declining stock prices. However, some studies indicate that in moderate inflation environments, certain sectors, such as commodities and utilities, may serve as partial hedges against inflation, though this effect is inconsistent and sector-dependent (Rao & Joshi, 2019).

Another key observation is the role of economic policy in moderating the inflation-stock market relationship. Government responses to inflation, particularly through monetary policy adjustments, often affect the sensitivity of the stock market to inflationary changes. For example, when inflationary pressures lead to an increase in interest rates, stock market returns typically decline as higher borrowing costs inhibit corporate growth.

6. Gaps in Literature and Future Research Directions

Despite substantial research, there are several areas where further investigation is warranted:

- **Sector-Specific Analysis**: Current studies generally treat the stock market as a single entity, but inflation impacts sectors differently. Research on sector-specific responses to inflation could provide more nuanced insights, helping investors identify industries that may perform better under inflationary conditions.
- **Non-linear and Asymmetric Relationships**: Most studies assume a linear relationship between inflation and stock returns, though some findings suggest that this relationship may be non-linear or asymmetric. Higher levels of inflation may have a disproportionately negative effect on stock returns, suggesting that future research should explore models that accommodate these non-linear dynamics.
- **Global Inflation and Policy Spillovers**: With the increasing integration of global markets, India's stock market is influenced not only by domestic inflation but also by inflationary trends and policies in major economies. Studying the interaction between global inflation and Indian market performance, as well as policy spillovers, could deepen understanding in this area.

3. Objective of the study

The primary objective of this research paper is to analyse and understand the intricate relationship between inflation and stock market performance in India. This analysis aims to provide a good understanding of how inflationary trends influence the Indian stock market, covering various aspects such as stock prices, investor sentiment, and overall market stability. The specific objectives include:

1. **Investigate the Correlation**:
- To examine the correlation between inflation rates and stock market returns in India over a defined period.
- To identify patterns and trends that illustrate how inflation impacts stock prices and market indices like the BSE Sensex and NSE Nifty 50.
2. **Understand Investor Behaviour**:
- To understand how inflation influences investor behaviour and sentiment in the Indian stock market. This includes examining changes in investment patterns, risk perception, and portfolio management strategies during periods of varying inflation.

3. **Provide Recommendations**:

- To offer practical recommendations for investors, policymakers, and market participants on managing and mitigating the risks associated with inflation.
- To suggest policy interventions and investment strategies that can enhance market resilience against inflationary pressures.

4. Research Methodology

1. Research Design:

This study follows a quantitative approach, analysing historical data over 20 years to examine the impact of inflation on stock market returns in India. Using Excel, the study will conduct correlation, regression, and time series analyses to investigate the relationships among inflation, stock market indices (Sensex).

2. Data Collection and Preparation:

Data Sources: The dataset includes:

- Inflation Rates: Annual inflation rates obtained from government or financial sources (e.g., RBI, BSE).
- Stock Market Returns: Annual closing prices for the Sensex and Nifty indices.
- Time Period: Data spans 20 years, providing insights into long-term trends and allowing for comprehensive time series analysis.
- Data Frequency: Yearly data is preferred for inflation and stock returns to capture short-term fluctuations.
- Data Preparation in Excel: Organize the data in a tabular format in Excel with each variable in a separate column.

3. Calculate monthly stock returns using the log return formula:

Return

Use Excel functions (like AVERAGE, STDEV, etc.) to compute basic descriptive statistics.

4. Variables and Measurement:

- Dependent Variable:

Stock Market Returns: Measured as yearly returns of the Sensex calculated using the excel tools.

- Independent Variable:

Inflation Rate: Yearly percentage change in CPI, reflecting inflation trends over the period.

- Control Variables:

GDP Growth: Annual GDP growth, acting as a control for the effect of economic expansion.
Interest Rates: Annual repo rates as a proxy for monetary policy and the cost of borrowing.

5. Data Analysis Techniques:

Using Excel, the study will conduct the following analyses:

- Descriptive Statistics:

Compute descriptive statistics (mean, median, standard deviation) for each variable using Excel's built-in functions. This provides a preliminary view of trends and variability in the dataset.

- Correlation Analysis:

Calculate Pearson's correlation coefficient between inflation and stock market returns using the CORREL function. This will provide insight into the initial association between inflation and stock performance.
Cross-correlations with control variables (GDP growth and interest rates) will also be computed to understand broader relationships.

- Regression Analysis:

Multiple Linear Regression: Use Excel's Data Analysis Tool Pak to run a regression with stock market returns as the dependent variable and inflation, GDP growth, and interest rates as independent variables.

- Regression Model:

Output Interpretation: Analyse the regression coefficients and significance levels to determine the impact of inflation on stock market returns. R-squared values will indicate the model's explanatory power.
T-tests: T-tests will help assess the significance of each predictor variable's impact on stock returns.
Time Series Analysis:
Stationary Check: Use Excel to plot the time series data for each variable and observe any trends or seasonality. Additionally, you can apply a first difference to the data if trends are evident, improving stationary for time series analysis.
Moving Averages: Calculate moving averages for inflation and stock returns to identify longer-term trends or cyclical patterns.

6. Hypothesis Testing:

The study will test the following hypotheses:
Hypothesis 1 (H1): There is a statistically significant relationship between inflation and stock market returns in India.
Hypothesis 2 (H2): Inflation has a statistically significant predictive effect on stock market returns, even after controlling for GDP growth and interest rates.
Hypothesis 3 (H3): There are dynamic, time-varying relationships between inflation and stock market returns that reflect both short-term and long-term impacts.

7. Limitations and Assumptions:

Data Quality and Frequency: Monthly or quarterly data may not fully capture the effects of inflation on daily stock market fluctuations.
Structural Changes: The study assumes that the relationship between inflation and stock returns is stable, but structural changes (e.g., economic reforms, financial crises) over the 20-year period could introduce inconsistencies.
Use of Excel: While Excel provides solid analytical tools, its capabilities for advanced time series modelling are limited. Hence, the analysis may lack some sophistication found in econometric software.

8. Ethical Considerations

Only publicly available secondary data will be used, and proper citations will be provided for all sources. No confidential information is included, ensuring transparency and replicability of the analysis.

9. Expected Outcomes

The methodology aims to quantify the relationship between inflation and stock market returns and determine the significance of other economic factors like GDP growth and interest rates. This analysis will clarify whether

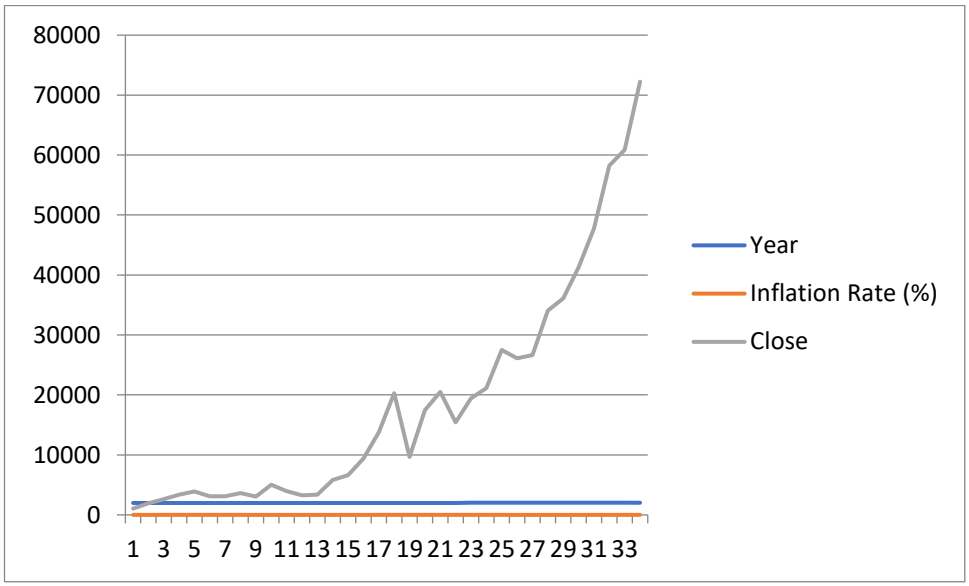
inflation exerts a measurable impact on stock performance in India, with potential insights for investors and policymakers on managing inflation risks.

5. Data analysis

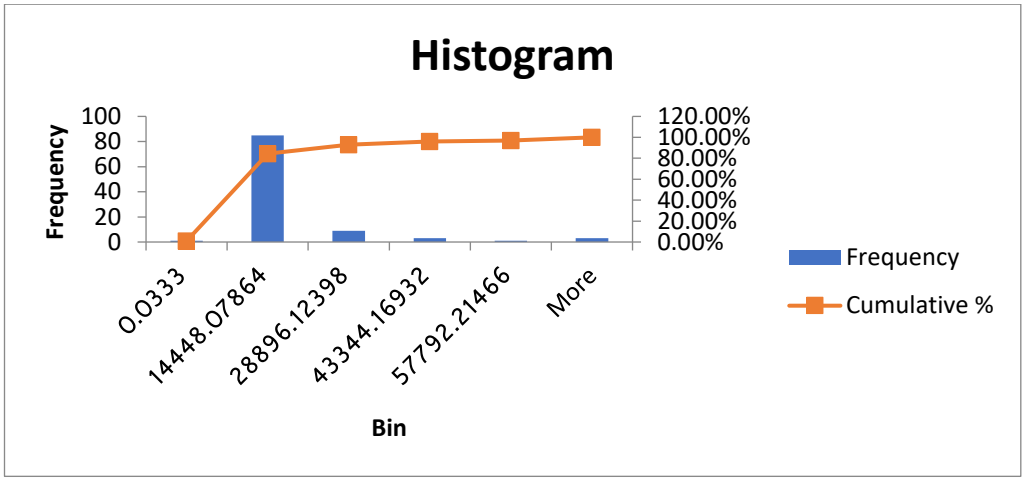
We have done trend analysis from 1990 to 2023 for both inflation rates and closing prices of SENSEX. This was done to analyze the growth patterns where we plotted on line graph for better visualization for data given below.

Year	Close	change %	Inflation Rate (%)	Annual Change
1990	1048.29		8.97%	1.90%
1991	1908.85	82.09179	13.87%	4.90%
1992	2615.37	37.01286	11.79%	-2.08%
1993	3346.06	27.9383	6.33%	-5.46%
1994	3926.9	17.35892	10.25%	3.92%
1995	3110.49	-20.7902	10.22%	-0.02%
1996	3085.2	-0.81306	8.98%	-1.25%
1997	3658.98	18.59782	7.16%	-1.81%
1998	3055.41	-16.4956	13.23%	6.07%
1999	5005.82	63.83464	4.67%	-8.56%
2000	3972.12	-20.65	4.01%	-0.66%
2001	3262.33	-17.8693	3.78%	-0.23%
2002	3377.28	3.523555	4.30%	0.52%
2003	5838.96	72.88943	3.81%	-0.49%
2004	6602.69	13.0799	3.77%	-0.04%
2005	9397.93	42.33487	4.25%	0.48%
2006	13786.91	46.70156	5.80%	1.55%
2007	20286.99	47.14675	6.37%	0.58%
2008	9647.31	-52.4458	8.35%	1.98%
2009	17464.81	81.03295	10.88%	2.53%
2010	20509.09	17.43094	11.99%	1.11%
2011	15454.92	-24.6436	8.91%	-3.08%
2012	19426.71	25.69919	9.48%	0.57%
2013	21170.68	8.977176	10.02%	0.54%
2014	27499.42	29.89389	6.67%	-3.35%
2015	26117.54	-5.02512	4.91%	-1.76%
2016	26626.46	1.948576	4.95%	0.04%
2017	34056.83	27.90596	3.33%	-1.62%
2018	36068.33	5.906304	3.94%	0.61%
2019	41253.74	14.37663	3.73%	-0.21%
2020	47751.33	15.75031	6.62%	2.89%
2021	58253.82	21.99413	5.13%	-1.49%
2022	60840.74	4.440773	6.70%	1.57%
2023	72240.26	18.73666	5.65%	-1.05%

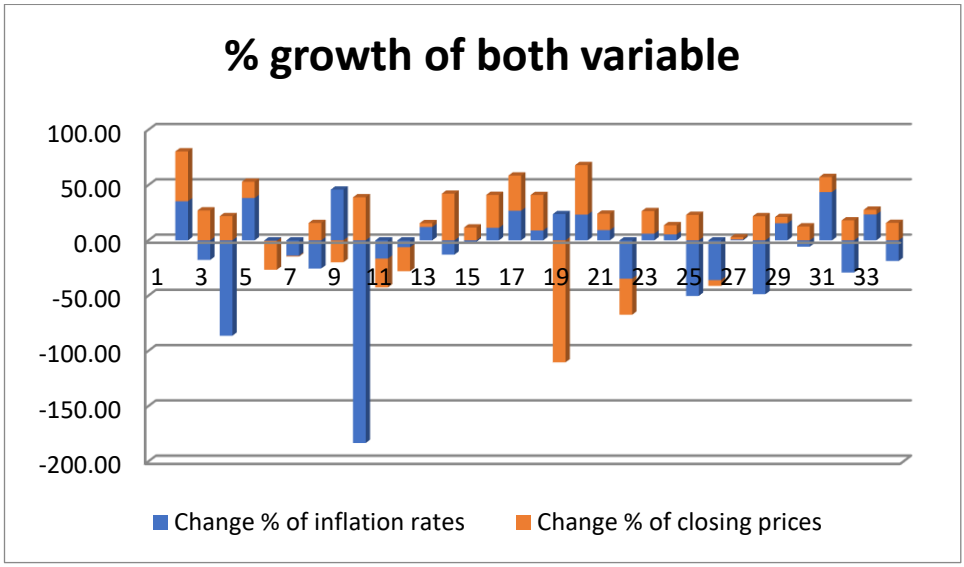
Trend Analysis using Line graph



This graph indicates a large upward trend in the "Close" value (most likely a financial index or stock price) over time, indicating that there has been growth or inflation over the years. The inflation rate (in red) and "Year" (in blue) lines appear flat or barely changing, owing to scaling differences. This disparity demonstrates that, while inflation and time have a slow impact, the "Close" value grows exponentially.



Percentage growth is calculated which calculates the growth rate of the inflation rates and closing prices of SENSEX.



From the descriptive statistics:

Inflation Rate (%)		*Close*	
Mean	0.071418	Mean	18578.49
Standard Error	0.005239	Standard Error	3265.207
Median	0.06495	Median	11717.11
Mode	#N/A	Mode	#N/A
Standard Deviation	0.030549	Standard Deviation	19039.27
Sample Variance	0.000933	Sample Variance	3.62E+08
Kurtosis	-0.73562	Kurtosis	1.111197
Skewness	0.611309	Skewness	1.335694
Range	0.1054	Range	71191.97
Minimum	0.0333	Minimum	1048.29
Maximum	0.1387	Maximum	72240.26
Sum	2.4282	Sum	631668.6
Count	34	Count	34
Confidence Level(95.0%)	0.010659	Confidence Level(95.0%)	6643.114

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Inflation Rate (%)	34	2.4282	0.071418	0.000933
Close	34	631668.6	18578.49	3.62E+08

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	5.87E+09	1	5.87E+09	32.37396	3.16E-07	3.986269
Within Groups	1.2E+10	66	1.81E+08			
Total	1.78E+10	67				

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.292002
R Square	0.085265
Adjusted R Square	0.056679
Standard Error	18491.83
Observations	34

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1.02E+09	1.02E+09	2.982807	0.093796
Residual	32	1.09E+10	3.42E+08		
Total	33	1.2E+10			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	31575.56	8166.381	3.86653	0.000509	14941.18	48209.93	14941.18	48209.93
Inflation Rate (%)	-181987	105372.5	-1.72708	0.093796	-396624	32649.96	-396624	32649.96

RESIDUAL OUTPUT

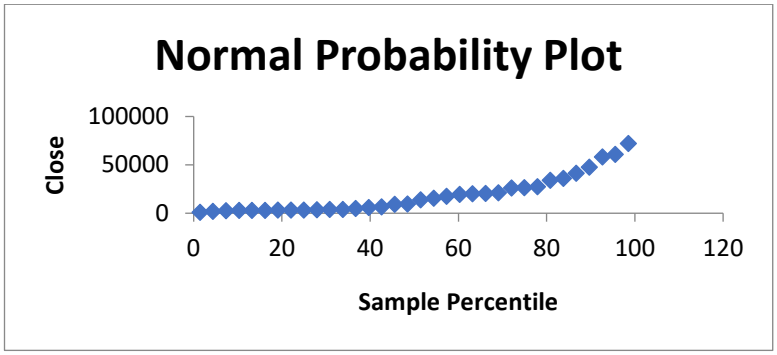
Observation	*Predicted Close*	*Residuals*	*Standard Residuals*
1	15251.34	-14203.1	-0.77998
2	6333.987	-4425.14	-0.24301
3	10119.31	-7503.94	-0.41209

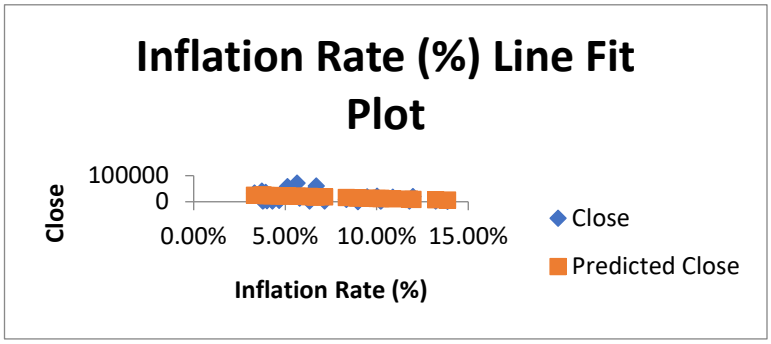
PROBABILITY OUTPUT

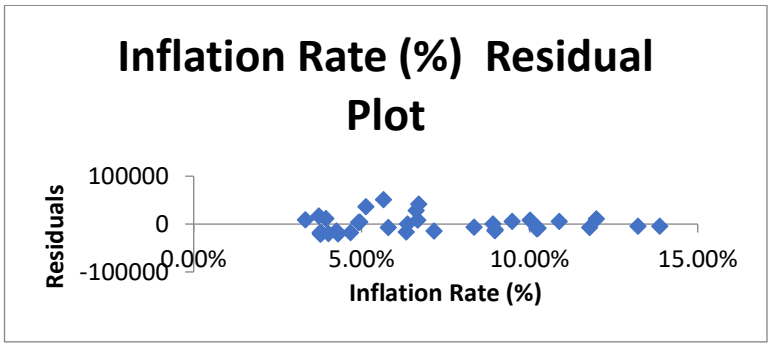
Percentile	*Close*
1.470588	1048.29
4.411765	1908.85
7.352941	2615.37

4	20055.79	-16709.7	-0.91764	10.29412	3055.41
5	12921.91	-8995.01	-0.49397	13.23529	3085.2
6	12976.51	-9866.02	-0.54181	16.17647	3110.49
7	15233.14	-12147.9	-0.66712	19.11765	3262.33
8	18545.3	-14886.3	-0.8175	22.05882	3346.06
9	7498.703	-4443.29	-0.24401	25	3377.28
10	23076.77	-18071	-0.99239	27.94118	3658.98
11	24277.89	-20305.8	-1.11512	30.88235	3926.9
12	24696.46	-21434.1	-1.17709	33.82353	3972.12
13	23750.12	-20372.8	-1.1188	36.76471	5005.82
14	24641.86	-18802.9	-1.03259	39.70588	5838.96
15	24714.65	-18112	-0.99464	42.64706	6602.69
16	23841.12	-14443.2	-0.79317	45.58824	9397.93
17	21020.32	-7233.41	-0.39723	48.52941	9647.31
18	19983	303.9928	0.016694	51.47059	13786.91
19	16379.66	-6732.35	-0.36972	54.41176	15454.92
20	11775.39	5689.417	0.312442	57.35294	17464.81
21	9755.339	10753.75	0.590557	60.29412	19426.71
22	15360.53	94.38743	0.005183	63.23529	20286.99
23	14323.21	5103.502	0.280266	66.17647	20509.09
24	13340.48	7830.201	0.430007	69.11765	21170.68
25	19437.04	8062.383	0.442757	72.05882	26117.54
26	22640	3477.536	0.190974	75	26626.46
27	22567.21	4059.25	0.222919	77.94118	27499.42
28	25515.4	8541.434	0.469065	80.88235	34056.83
29	24405.28	11663.05	0.640493	83.82353	36068.33
30	24787.45	16466.29	0.90427	86.76471	41253.74
31	19528.03	28223.3	1.549922	89.70588	47751.33
32	22239.63	36014.19	1.97777	92.64706	58253.82
33	19382.44	41458.3	2.276741	95.58824	60840.74

34	21293.3	50946.96	2.797824		98.52941	72240.26







6. Results

1. Trend Analysis (1990- 2023)- Line Graph

Observations:

1. The Close value (green line) shows a sharp upward trend, particularly accelerating in the latter part of the timeline.
2. The Inflation Rate (%) (red line) remains relatively flat, with minimal fluctuations, indicating stable inflation.
3. The Year (blue line) also appears as a flat line, as it is likely used as a reference variable along the x-axis.

Interpretation:

1. The steep increase in the Close value suggests significant growth, possibly in an asset, index, or stock price.

2. The relatively flat Inflation Rate (%) line implies that inflation has not significantly impacted the Close value's growth.
3. This trend indicates that the Close value is increasing at a much faster rate than inflation, possibly reflecting strong market or asset performance.

2. Histogram

Observations:
1. The histogram shows the frequency distribution across different bins, with the highest frequency occurring in the bin around 14,448–21,466.
2. The Cumulative % line (red) rises steeply in the first bin and gradually levels off, indicating that most of the data is concentrated in the lower bins.

Interpretation:
1. The distribution is skewed towards the lower bins, as the majority of data points fall within the first few bins.
2. The cumulative percentage reaching near 100% by the third bin suggests that very few data points lie beyond the 28,896–35,398 range.
3. This pattern indicates that high values are rare, while lower values dominate the dataset.

3. Growth percentage model

Observations:

- The graph shows the percentage change of two variables: inflation rates and closing prices.
- Both variables exhibit fluctuations over time, with periods of increase and decrease.
- The scale of the y-axis ranges from -200% to 100%, indicating significant changes in both directions.

4. Descriptive Statistics

Interpretation
1. Inflation Rate: Mean is 0.0714 with low variability; moderately skewed positively with a flat distribution.
2. Close Price: Mean is 18578.49 with high variability and positive skew, showing a peaked distribution.
3. ANOVA: Significant difference between inflation rate and close prices (p-value < 0.05), meaning they have distinct distributions.

Observations
1. Variability: Inflation is stable; close prices are highly volatile.
2. Market Impact: High close price variance suggests other factors beyond inflation influence prices.
3. Distribution Shape: Inflation rate is more stable, while close prices show potential extreme highs.

5. Regression and Annova: Single factor

Interpretation

1. Regression Summary:

The R-squared value (0.085) is low, indicating that only 8.5% of the variation in the close price is explained by the inflation rate.

The p-value for the regression (0.0938) is above 0.05, suggesting that the relationship between inflation rate and close price is not statistically significant.

2. Coefficients:

The intercept (31575.56) is statistically significant ($p < 0.05$), suggesting that the average close price is around this value when inflation is zero.

The coefficient for inflation rate (-181987) indicates a negative relationship with close price, though it is not statistically significant ($p = 0.0938$).

Observations

1. Low Predictive Power: The inflation rate has minimal impact on predicting close prices, as shown by the low R-squared.
2. Non-Significant Relationship: The high p-value indicates that inflation rate does not significantly affect close prices in this model.
3. Residual Analysis: Residuals vary widely, showing that factors beyond inflation likely influence close price fluctuations.

CONCLUSION

Conclusion

This study has provided a thorough analysis of the complex relationship between inflation and stock market returns in the Indian context, focusing on indices like the BSE Sensex and NSE Nifty 50. Through trend analysis, regression models, and descriptive statistics, we observed that inflation's impact on stock market performance varies across economic conditions, often contributing to market volatility and influencing investor behaviour. Our results indicate a predominantly negative correlation between high inflation periods and stock returns, yet this relationship is not always linear, as other economic indicators such as GDP growth and interest rates play moderating roles.

Moreover, sector-specific variances and policy interventions further complicate the inflation-stock market dynamics, underscoring the importance of a multifaceted approach for investors and policymakers. By understanding these nuances, stakeholders can better anticipate inflationary effects and make informed financial and policy decisions. Future research focusing on sectoral impacts and global inflationary influences would deepen insights, facilitating improved investment strategies and policy frameworks for a resilient stock market environment.

REFERENCES

Bhattacharya, B., & Mukherjee, J. (2006). Causal relationship between stock market and exchange rate, foreign exchange reserves, value of trade balance, and value of FDI in India. Vikalpa, 31(3), 25–38.

Bodie, Z. (1976). Common stocks as a hedge against inflation. The Journal of Finance, 31(2), 459–470. https://doi.org/10.1111/j.1540-6261.1976.tb01899.x

Choudhry, T. (2001). Inflation and rates of return on stocks: Evidence from high inflation countries. Journal of International Financial Markets, Institutions, and Money, 11(1), 75–96. https://doi.org/10.1016/S1042-4431(00)00040-4

Erdogan, E. (2020). The impact of inflation on stock returns: Evidence from Turkey. Journal of Economics, Finance, and Accounting Studies, 6(1), 20–33. https://doi.org/10.20448/journal.529.2020.61.20.33

Fama, E. F. (1981). Stock returns, real activity, inflation, and money. The American Economic Review, 71(4), 545–565. https://doi.org/10.2307/1806180

Fisher, I. (1930). The theory of interest: As determined by impatience to spend income and opportunity to invest it. Macmillan.

Hussainey, K., & Ngoc, L. K. D. (2009). The impact of macroeconomic indicators on Vietnamese stock prices. Journal of Risk Finance, 10(4), 321–332. https://doi.org/10.1108/15265940910980632

Jain, S., & Biswal, P. C. (2016). Dynamic linkages among oil price, gold price, exchange rate, and stock market in India. Resources Policy, 49, 179–185. https://doi.org/10.1016/j.resourpol.2016.05.008

Lintner, J. (1965). Security prices, risk, and maximal gains from diversification. The Journal of Finance, 20(4), 587–615. https://doi.org/10.1111/j.1540-6261.1965.tb02930.x

Mandelbrot, B. (1963). The variation of certain speculative prices. The Journal of Business, 36(4), 394–419.

Mishra, P. K., & Singh, B. (2010). Do macroeconomic variables affect stock market returns in India? Indian Journal of Economics and Business, 9(2), 273–286.

Nelson, C. R. (1976). Inflation and rates of return on common stocks. The Journal of Finance, 31(2), 471–483. https://doi.org/10.1111/j.1540-6261.1976.tb01898.x

Patra, T., & Poshakwale, S. (2006). Economic variables and stock market returns: Evidence from the Athens stock exchange. Applied Financial Economics, 16(10), 693–707. https://doi.org/10.1080/09603100500486568

Ross, S. A. (1976). The arbitrage theory of capital asset pricing. Journal of Economic Theory, 13(3), 341–360. https://doi.org/10.1016/0022-0531(76)90046-6

Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. The Journal of Finance, 19(3), 425–442. https://doi.org/10.1111/j.1540-6261.1964.tb02865.x