A STUDY ON INFLUENCE OF MACROECONOMIC VARIABLES ON SHARE PRICES OF DIFFERENT INDUSTRIES

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Abstract: Macroeconomic factors are crucial for any change in national capital markets. This study's goal is to investigate the relationship between macroeconomic variables and specific industry-specific business stock prices. The major goals of the study are to identify the important macroeconomic variables that have the greatest impact on stock prices, explore the relationships between these variables and stock prices, and quantify these impacts. The paper also offers advice for governments, stakeholders, and investors based on the research's conclusions. . The study provides relevant data on the relationships between stock prices in specific industries and macroeconomic factors, which can aid in the development of sound economic policies. The study emphasises the importance of macroeconomic issues in influencing the profitability of firms and their stock values as a result, laying the groundwork for future research in this area.

Key words: stock prices, interest rates, inflation rates, GDP rates

INTRODUCTION

The ability for both individual and corporate investors to diversify their portfolios is one way that stock markets encourage saving and investing. By mobilising, combining, and diversifying savings from many parties, these markets foster economic growth and providing them to businesses so they can use them most effectively. In that regard, higher savings mobilisations boost savings rates, which in turn encourage investments and give fund owners the opportunity to receive investment income. Additionally, because these markets are liquid, investors can exchange ownership of securities and realise capital gains by doing so.

Effects of Interest Rates, GDP and Inflation on Stock Market Returns

An interest rate is the amount of interest that a borrower must pay a lender in exchange for using money which they have loaned them. The main goal of adopting price stability is the main goal of monetary policy is to stabilise price expectations while also fostering a stable and non-inflationary environment for resource allocation. A successful anti-poverty approach is said to require maintaining low inflation. Inflation is also impacted by changing interest rates because they change the amount of money in circulation.

STATEMENT OF PROPLEM

Every economy depends on the stock market, thus it is essential for investors, decision-makers, and market players to comprehend the factors that affect share prices. The total performance of a stock market is greatly influenced by macro-economic indicators including GDP rate, inflation rate, interest, currency rates, and other economic indicators. To better understand the precise impact of these macroeconomic factors on the share prices of various businesses, a thorough analysis is required. Hence, study on influence of selected macro-economic variables on share price of different industries is conducted.

OBJECTIVE OF THE STUDY

1. To examine a relationship between the share prices of several industries and a few macroeconomic metrics (inflation, exchange, interest, and GDP rates).

2. To examine how macroeconomic factors affect the stock prices of various industries' performances.

3. To provide investors and decision-makers with advice on how to limit the stock market's susceptibility to macroeconomic issues.

REVIEW OF LITERATURE

R. Gopinathan & S. Raja Sethu Durai, (2019): The macroeconomic fundamentals are the independent variable, while the authors have used the Indian stock market indexes as the dependent variable. The goal of this article is to explore the long- and short-term relationships between the Indian stock markets and important macroeconomic factors including inflation and exchange rates. For the analysis, the authors employed the Unit root test and the Johansen's Co integration test. This study aimed to understand the time-varying, nonlinear links between stock prices and other significant macroeconomic factors using monthly data from India from April 1994 to July 2018.

Emmanuel Isaac John, (2019): For the purposes of the study, the author used macroeconomic variables as the explanatory variable and stock market prices as the explained variable. Finding out how interest rates and money management affect the Nigerian stock market is the study's main goal. The author has taken into account the statistics that are described, the normality test, least squares regression, and the causation test for the analysis. The study clarifies the impact of macroeconomic variables on the Nigerian stock market.

Pramath Nath Acharya, (2018): Macroeconomic factors and share price behaviour: a study of a few Indian industries with the idea that certain enterprises' share prices are influenced by macroeconomic issues. The review's broad goal is to identify and quantify the influence of certain macroeconomic factors on the value share costs in the Indian stock market. The writer has utilized The author has also used graphical representation to show the impact of the macroeconomic variables on the share prices of the Indian Stock market. The current study uses regression and correlation in an effort to determine the relationship as well as the effect of macroeconomic factors on the share price of selected industries.

Dr. Pooja Misra, (2018): In their research, they used the BSE Sensex as the dependent variable and the macroeconomic indicator as the independent variable. The study examines whether there is any connection—if any—between macroeconomic indicators and the BSE Sensex. Granger causality and Correction of vector errors are the methods or tools utilised for the analysis. The analysis' findings indicate that the effects of inflation, interest rates, and oil prices on the stock market are things that investors should be aware of in order to make wise investing decisions.

Shohani Badullahewage, (2018): The author used the unbiased variables—the macroeconomic indicators—and the biased variables—the stock market returns of the Sri Lankan market. The goal of the study is to explore how macroeconomic factors affect the Sri Lankan stock market in order to fully comprehend the market and its current state. Descriptive statistics and regression are the methods used for the analysis. The analysis's findings demonstrated that there is a significant relationship between the macroeconomic variables and the stock market. Due to the fluctuation within the factors as well, the stock exchange performance in the Democratic Socialist Republic of Sri Lanka changes periodically. The performance of the CPI and ASPI tends to be stronger when there is an upward movement in variables like the interest rate, currency rate, and GDP. Whereas the rate should be at its lowest possible level in order to have the best chance of performing well on the stock market.

RESEARCH DESIGN

TYPE OF RESEARCH: Type of research used is Empirical research.

SOURCE OF DATA

The secondary data is the information gathered for the analysis.

- From April 2015 to December 2022, share prices for companies in a variety of industries were gathered from the BSE (BOMBAY STOCK EXCHANGE) website.
- From April 2015 to December 2022, the rates of inflation were gathered from the rateinflation.com website.
- From April 2015 to December 2022, investing.com provided data on India's interest rates.
- The GDP rates from the years 2015 to 2022 were gathered from kaggle.com.

VARIABLES

VARIABLES	DEFINATION
Y	Share prices of different industries
X1	Inflation rates
X2	Interest rates
X3	GDP

DATA ANALYSIS METHODOLOGY

- The collected data is analysed using Microsoft Excel and Jamovi
- Various statistical tools are used for the analysis like descriptive Statistics, Correlation analysis, Regression analysis, Granger Causality test.

HYPOTHESIS

- H0: There is no significant influence of selected macroeconomic variables on share prices of different industries.
- H1: There is significant influence of selected macroeconomic variables on share prices of different industries.

DATA ANALYSIS AND INTERPRETATION

1. Descriptive Statistics of agriculture industry

	SHARE PRICE	INFLATION RATES	INTEREST RATES	GDP RATES
N	93.00	93.00	93.00	93.00
Mean	2189.00	0.05	0.06	0.05
Standard deviation	507.00	0.02	0.01	0.05
Shapiro-Wilk p	< .001	0.18	< .001	< .001

INTERPRETATION

The medians of the three rates—inflation, interest, and GDP—are quite close to one another.

The very high standard deviation values for the independent variables, which are 0.0153, 0.0109, and 0.0479, indicate that there is significantly greater variance in the data.

2 Descriptive statistics of automobile industry

	SHARE PRICE	INFLATION RATES	INTEREST RATES	GDP RATES
N	93	93	93	93
Mean	8663	0.0491	0.0556	0.0515
Standard deviation	3253	0.0153	0.0109	0.0479
Shapiro-Wilk p	< .001	0.179	< .001	< .001

INTERPRETATION

The medians of the three rates—inflation, interest, and GDP—are quite close to one another. Share price standard deviation is 3253. The very high standard deviation values for the independent variables, which are 0.0153, 0.0109, and 0.0479, indicate that there is significantly greater variance in the data.

3 Descriptive statistics of infrastructure industry

	SHARE PRICE	INFLATION RATES	INTEREST RATES	GDP RATES
N	93	93	93	93
Mean	1477	0.0491	0.0556	0.0515
Standard deviation	422	0.0153	0.0109	0.0479
Shapiro-Wilk p	< .001	0.179	< .001	< .001

INTERPRETATION

The mean rates of GDP, interest rates, and inflation are all close to each other.

The standard deviation of Offer costs is 422, The standard deviation values for the free factors 0.0153, 0.0109, 0.0479 which are exceptionally high, expressing that there is a critical more measure of variety in the information.

4 Descriptive statistics of information technology

	SHARE PRICE	INFLATION RATES	INTEREST RATES	GDP RATES
N	93	93	93	93
Mean	1561	0.0491	0.0556	0.0515
Standard deviation	312	0.0153	0.0109	0.0479
Shapiro-Wilk p	< .001	0.179	< .001	< .001

INTERPRETATION

The medians of the three rates—inflation, interest, and GDP—are quite close to one another. Share price standard deviation is 312, The very high standard deviation values for the independent variables, which are 0.0153, 0.0109, and 0.0479, indicate that there is significantly greater variety in the data.

5 Descriptive statistics of pharmaceutical sector

	SHARE PRICE	INFLATION RATES	INTEREST RATES	GDP RATES
N	93	93	93	93
Mean	2096	0.0491	0.0556	0.0515
Standard deviation	761	0.0153	0.0109	0.0479
Shapiro-Wilk p	< .001	0.179	< .001	< .001

INTERPRETATION

The medians of the three rates—inflation, interest, and GDP—are quite close to one another. The independent variables' standard deviation values are quite high, 0.0153, 0.0109, and 0.0479, indicating that there is far more variance in the data than the standard deviation of share prices, which is 761.

CONCLUSION: The purpose of the study was to educate the general public on the change in share prices. Indians are drawn to participating in these capital markets as stock markets have recently become a crucial component of the country's economy. They are interested in learning how the share prices are being affected by these macroeconomic variables. The benefit of the study is that it will provide investors a clear image of the firms from which they may pick and how those assets will move in the market. Given that we used the best performing businesses from five industries, the data gathered for the study was quite trustworthy.

To sum up, it can be said that all five sectors are having an influence on their firms, but when the five industries are compared, it can be seen that the infrastructure and pharmaceutical industries are having the biggest effects on share prices, as well as the other industries of agribusiness, transportation, and information technology.

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