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Macroeconomical Factor Impact on Indian Stock Market

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ABSTRACT:

This study focuses on how macroeconomic factors affect the Indian stock market. The aim of the study is to examine the relationship between the price of Indian equities and a few selected macroeconomic indicators. This study may also assist investors make better selections by analyzing the effects of specific macroeconomic variables on stock market price returns. This analysis may aid investors in selecting which assets to buy and sell.

INTRODUCTION.

Stock market:
It is a marketplace where people buy and sell ownership of companies.Consider that you are the owner of a tiny portion of a business, which is referred to as a "stock" or "share." When a business wishes to expand, funding could be required. Thus, they make these shares available to the general public via the stock market.In India there are two primary stock exchange where majority of trade takes place.

The Bombay Stock Exchange (BSE): It's among Asia's oldest stock exchange, having been founded in 1875. It is based in Mumbai and has hundreds of listings in different industries.

National Stock Exchange (NSE): The NSE is a relatively new addition, having been founded in 1992. In a short period of time, it has grown to be one of India's biggest and most technologically sophisticated stock exchanges. Additionally, its headquarters are in Mumbai.

INDICES: The BSE Sensex and the NSE Nifty are two of the most important stock market indicators in India. These indices offer a comprehensive picture of the performance of the market by representing a basket of carefully chosen equities from various industries.

Macroeconomic variables introduction

1. Exchange rates

The exchange rate refers to the cost involved in converting one currency into another. The currency exchange rate affects a nation's import and export.A rising domestic stock market is supposed to reassure investors that the economy of the country is doing well. As a result, the country's economy is growing, attracting more foreign investors and increasing demand for local currency. Foreign investors withhold their money and lose faith, however, if the stock market underperforms.

2. Inflation rate

Decrease in a currency's buying power over time is called inflation.Inflation harms the economy since it impacts all of its sectors. Inflation and the stock market have a negative correlation. Reduced consumer savings and spending are the results of inflation. The corporation's profits naturally decline as expenditure does.

3. Gold price

Due to its status as a precious asset, gold has been significant since ancient times. People view it as an investment and have used it as a status symbol in society.The price of gold and stocks typically have a negative correlation because investors diversify their holdings from gold to the stock market when the price of gold declines and vice versa.

4. Interest rate

The amount that banks charge you for utilizing the funds they obtain from deposits from you is known as interest. Money from deposits is used to finance loans.Changes in interest rates can affect borrowing costs for individuals and businesses, which has an impact on the economy and stock markets.Generally, increased interest rates have a negative effect on stock prices and profitability.

5. Foreign Exchange Reserve

Foreign currency reserves, also known as forex reserves, are the assets that a country's central bank maintains in foreign currencies. Since these reserves are used to maintain financial markets, fulfill obligations for international payments, and stabilize the national currency, they are crucial to the economic stability of a nation.

REVIWE OF LITERATURE.

Review of the literature 1

An analysis conducted in 2018 by Keshav Garg and Rosy Kalra focused on the influence of macroeconomic factors on the Indian stock market. Examining the relationship between the price of Indian equities and a few selected macroeconomic variables is the aim of the study. This study looks at how certain macroeconomic factors affect stock market price returns, which may help investors make decisions about buying and selling shares. This study may also help investors make better selections by analyzing the relationship between the dependent variable (Sensex) and the independent variable (macroeconomic conditions). The method used in this study is descriptive, and Pearson correlation is used to determine the relationship between the independent and dependent variables. Details

Review of Literature 2

Mandeep Mahendru and Gagan Deep Sharma (2010) investigated how macroeconomic variables affected the value of Indian stocks. The long-term relationship between the BSE and macroeconomic variables—such as shifts in the foreign exchange reserve, inflation rate, gold price, and exchange rate—is investigated in this paper. The multiple regression equation model was created by Galton (1877) to investigate the relationship between different variables. January 2008–January 2009 is the experimental period. The empirical findings demonstrate a substantial relationship between gold prices and exchange rates, which has an effect on stock prices. However, there isn't much of an impact on stock prices from inflation or foreign exchange reserves.

Review of the literature 3

The relationship between the macroeconomic variables of oil price and currency rate for Brazil, India, Russia, and China was explained by Robert D. Gay, Jr. in 2008. The data is examined by comparing the prices of oil, credible stock market indices, and exchange rates on a monthly average between 1999 and 2006. Using the Box-Jenkins Autoregressive Integrated moving average (ARIMA) time series approach, the relationship between the independent variables (oil price and exchange rate) and the dependent variable (stock market index) was examined. It was found that the stock market exchange index of Brazil, Russia, China, and India did not exhibit any significant correlation with the global macroeconomic variables of oil price and exchange rate.

Research Methodology: It is specific procedures use to identify,select, process and analyze the information.How the data collected? And How it is analyzed?

Data Collection: The information gathered is secondary information that has previously been gathered by another party and made accessible to others.Sources such as internal reserve service, bank bazaar.com, and Yahoo Finance are used to collect data.

(Previous year data is gathered between 2019 and 2023)

OBJECTIVE.

1) To examine the effects on the stock market of a chosen five macroeconomic variables: gold price, interest rate, inflation rate, foreign exchange reserves and exchange rate.
2) To ascertain the impact of the chosen variables on the market performance of stocks.

HYPOTHESIS OF STUDY.

The null hypothesis
Ho: The chosen macroeconomic indicators and the NSE Nifty 50 do not significantly correlate.
Alternate hypothesis
Ha: Selected macroeconomic indicators and the NSE Nifty 50 are related to each other.

DATA ANALYSIS.(2019 to 2023)

	Mean	Standard deviation	Sum	Minimum	Maximum	Range
Nifty 50	14825.784	2927.38	74128.92	11002.58	18717.06	7714.48
INTR(%) Interest rate	5.26	63.48	26.34	4.31	6.50	2.19
GP(RS) Gold price	53231.2	12623.10	267156	35220	65285	30065
ER(%) Exchange rate	75.9	2.158	379.5	70.39	82.57	12.18
FER(in B$) Foreign exchange reserve	527.538	80.1053	2637.69	412.87	607.31	194.44
IR(%) Inflation rate	5.53	1.21	27.69	3.73	6.70	2.97

Interpretation: NIFTY 50 has a mean of (14825.784) and a standard deviation of (2927.38).The pricing minimum is (11002.58) and the maximum is (18717.06).The average rates of interest, gold price, foreign exchange reserve, exchange rate, and inflation are, in that order, (5.26)(53231.2)(75.9)(527.538)(5.53).

Correlation Study:

Finding the existence and potential strength of a relationship between two variables or datasets is done statistically using a method known as correlation analysis. This means that, in terms of market research, correlation analysis is used to determine whether there are any notable links, patterns, or trends between quantitative data collected through research methodologies such as surveys and polls.A strong or high correlation suggests that two or more variables have a significant relationship with one another, whereas a weak or low correlation shows that there is little to no association between the variables. Correlation coefficients vary from -1.00 to +1.00. The number -1.00 indicates a perfect negative correlation, whereas the number indicates a perfect positive correlation.

	Nifty 50	Interest Rate	Foreign Exchange Reserve	Inflation Rate	Inflation Rate	Gold Price
Nifty 50	1					
Interest Rate	0.4417217	1				
Foreign Exchange Reserve	0.8591766	-0.0486	1			
Inflation Rate	0.2561165	-0.34365	0.575538	1		
Exchange Rate	0.8606521	0.489538	0.709231	0.51003	1	
Gold Price	0.8827852	0.216742	0.903678	0.674555	0.929162	1

According to the preceding table, there is a strong negative correlation between the foreign exchange reserve and interest rate—roughly (-0.0486) and (-0.34365)—and the prices of NSE stocks. Thus, it can be concluded that it has an impact on NSE stock prices. The price of gold, the interest rate, and the exchange rate all positively correlate with NSE stock prices

CONCLUSION:

The aim of the study is to investigate the relationship between the NSE Nifty 50 Indian stock market and a few selected macroeconomic indicators. Furthermore, to determine the effect of the selected variables on the performance of the stock. According to the study, the foreign exchange reserve and inflation rate have no effect on the NSE Nifty 50 stock market in the correlation matrix, but the other three have an impact on the prices of Nifty 50 stocks.