

ANALYSIS OF STOCK MARKET FLUCTUATIONS AND GLOBAL ECONOMIC CONDITIONS- A REVIEW

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ABSTRACT

The consideration of macroeconomic factors holds significant value in the process of decision-making. An assessment of the macroeconomic milieu is imperative in order to scrutinise the conduct of equity prices, which in turn impacts the investment proclivities of investors. Whilst certain macroeconomic factors may not exhibit a direct correlation to a given company or industry, it is important to acknowledge their influence on stock prices. The broader economic landscape, both domestically and globally, can significantly impact the stock market and its subsequent activity. The correlation between the rapid expansion of a nation's economy and the subsequent acceleration of its industrial sector is a well-established phenomenon. Conversely, a sluggish industrial growth can impede the overall economic progress of a country. The pivotal function of the financial market in the economic system of a nation cannot be overstated. The stock market is a dynamic marketplace where investors engage in the exchange of securities issued by listed companies. This highly responsive market provides a platform for investors to allocate their capital across a diverse range of securities.

Market indices serve as a means of quantifying the efficacy of diverse securities within the stock market. Investors leverage these indices to scrutinise the performance of industries in which they are inclined to invest. The present investigation endeavours to scrutinise the correlation between diverse economic variables and the stock market, as scrutinised by the research articles incorporated in the study. The assemblage of research encompassed scholarly articles published in academic journals throughout the decade between 2010 and 2020. The empirical analysis reveals a positive correlation between the price of gold, exchange rate, consumer price index, and interest rate with four indices. Conversely, the price of crude oil and silver exhibit a positive correlation with three indices. The outcome elucidates that investors must duly consider all pertinent variables when making investment decisions and investment bankers must similarly attend to these indicators prior to proffering recommendations to their clientele.

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This is an Open Access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons. org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. *Keywords-* stock market, BSE, NSE, SENSEX, NIFTY, macro-economic factors, GDP, FII, FDI, inflation rate, gold prices, oil prices

Introduction

The stock market and macroeconomic factors are closely intertwined. Macroeconomic factors refer to the broader economic conditions that affect the overall performance of an economy, while the stock market represents the financial market where stocks and other securities are bought and sold.

Here are some key macroeconomic factors that can influence the stock market:

Economic Growth: Strong economic growth often leads to increased corporate profits, which can boost stock prices. Positive GDP growth, low unemployment rates, and rising consumer spending are generally favorable for the stock market.

Interest Rates: Changes in interest rates can have a significant impact on the stock market. Lower interest rates make borrowing cheaper, encouraging businesses and consumers to spend and invest, which can drive up stock prices. Conversely, higher interest rates can increase borrowing costs, potentially reducing corporate profits and dampening stock market performance.

Inflation: Moderate inflation is generally viewed as positive for the stock market, as it indicates a healthy level of economic activity. However, high inflation can erode purchasing power and lead to higher interest rates, negatively impacting stock prices.

Monetary Policy: The actions taken by central banks, such as the Federal Reserve in the United States, can influence the stock market. Changes in monetary policy, such as adjusting interest rates or implementing quantitative easing measures, can impact borrowing costs, liquidity, and investor sentiment.

Fiscal Policy: Government spending, taxation, and regulatory policies can also impact the stock market. Expansionary fiscal policies, such as tax cuts or increased government spending, can stimulate economic growth and potentially boost stock prices.

Geopolitical Factors: Political instability, trade tensions, wars, and other geopolitical events can significantly affect the stock market. Uncertainty and volatility often increase during times of geopolitical turmoil, leading to fluctuations in stock prices.

Industry and Sector Performance: The performance of specific industries or sectors can influence the overall stock market. For example, advancements in technology may lead to increased demand for technology stocks, impacting their prices and potentially driving broader market movements.

It's important to note that the stock market is influenced by a wide range of factors, and their impact can be complex and interconnected. Additionally, market behavior can be influenced by investor sentiment, market psychology, and other non-macro factors. Therefore, it's crucial to consider multiple factors and conduct thorough analysis when evaluating the relationship between the stock market and macroeconomic factors.

Conceptual Framework

Stock Exchange

Stock exchanges function as a forum for the exchange of securities emanating from governmental and semi-governmental bodies, alongside other public entities. Furthermore,

they serve to enable the transfer of equities and bonds that have been issued by corporations with shared ownership. The stock market serves as a platform for the exchange of shares, employing various mechanisms including free competition and over-the-counter sales. It is noteworthy that transactions may also be applicable to government securities. The individuals comprising the stock exchanges establish agreements at valuations that are considered equitable based on the underlying tenets of supply and demand within the realm of commerce. The securities market is a financial marketplace that enables the exchange of diverse financial instruments, including equities, shares, debentures, and bonds. Equities are exchanged on a diurnal basis across diverse international stock exchanges. The procurement of sufficient liquidity is a pivotal factor in promoting economic growth and development. The stock market is a forum that is open to the public, where the trading of corporate equities takes place via the mechanism of purchasing and vending at a consensually determined valuation.

The stock market in India is known as the Indian stock market or the Indian equity market. It consists of two primary stock exchanges: the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). These exchanges facilitate the buying and selling of stocks and other financial instruments.

Here are some key aspects of the stock market in India:

BSE/NSE: The Bombay Stock Exchange (BSE) is the oldest stock exchange in Asia, established in 1875. It is located in Mumbai and is known for its benchmark index, the S&P BSE Sensex, which tracks the performance of 30 large and well-established companies. The National Stock Exchange (NSE), established in 1992, is based in Mumbai as well and is one of the largest stock exchanges in India. Its key index is the Nifty 50, comprising 50 actively traded stocks.

Regulatory Body: The Securities and Exchange Board of India (SEBI) is the regulatory authority overseeing the Indian stock market. SEBI regulates and supervises stock exchanges, brokers, listed companies, and various market participants. Its role is to ensure fair and transparent trading practices, protect investor interests, and maintain market integrity.

Stock Market Indices: The BSE Sensex and the NSE Nifty are the most widely followed indices in the Indian stock market. These indices serve as benchmarks to gauge the overall market performance and sentiment. Additionally, there are sector-specific indices and other broader market indices that provide insights into specific segments of the economy.

Market Participants: The Indian stock market has a diverse range of participants, including institutional investors such as mutual funds, insurance companies, and foreign institutional investors (FIIs). Individual retail investors also actively participate in the market. Stockbrokers and brokerage firms facilitate the buying and selling of securities on behalf of investors.

Market Regulation: SEBI regulates various aspects of the stock market, including listing requirements for companies, disclosure norms, trading rules, and investor protection measures. It continuously works on enhancing market transparency, improving corporate governance practices, and implementing regulatory reforms to strengthen the Indian stock market.

Trading Platforms: The stock market in India operates through electronic trading platforms. These platforms provide real-time access to market data, order placement, and trade

execution. Investors can trade in cash equities, equity derivatives (such as futures and options), and other financial instruments listed on the exchanges.

Market Volatility: The Indian stock market can experience periods of volatility due to various factors, including domestic and global economic conditions, corporate earnings, political developments, and investor sentiment. Volatility in the stock market presents both risks and opportunities for investors.

It's important for investors to conduct thorough research, analyze company fundamentals, track market trends, and consider risk management strategies when investing in the Indian stock market. Additionally, consulting with a financial advisor or broker can provide valuable insights and guidance for making informed investment decisions.

Macro economic Factors

Macroeconomic factors are the broad economic indicators that affect an entire economy or a large-scale economic system. These factors provide insights into the overall health, stability, and growth prospects of an economy.

Here are some key macroeconomic factors:

Gross Domestic Product (GDP): GDP represents the total value of goods and services produced within a country's borders over a specific period. It is a measure of economic activity and growth. High GDP growth is generally associated with a healthy economy, while low or negative growth can indicate an economic slowdown or recession.

Inflation: Inflation is the rate at which the general level of prices for goods and services is increasing. Moderate inflation is generally desirable, as it indicates a growing economy. However, high inflation erodes purchasing power, reduces the value of money, and can lead to economic instability.

Unemployment Rate: The unemployment rate measures the percentage of the labor force that is jobless and actively seeking employment. Low unemployment rates indicate a strong labor market, higher consumer spending, and a healthier economy. High unemployment rates can indicate economic weakness and reduced consumer spending.

Interest Rates: Interest rates influence borrowing costs, investment decisions, and consumer spending. Central banks often use interest rates to manage inflation and stimulate or cool down economic activity. Lower interest rates can encourage borrowing and investment, while higher rates can reduce borrowing and slow down economic growth.

Fiscal Policy: Fiscal policy refers to the government's use of taxation and spending to influence the economy. Government spending can stimulate economic growth, while taxation affects disposable income and consumer spending. Fiscal policies can aim to increase aggregate demand, promote investment, and stabilize the economy during periods of recession.

Monetary Policy: Monetary policy is controlled by the central bank and involves managing interest rates, money supply, and credit conditions. Central banks use monetary policy tools to control inflation, stabilize financial markets, and influence economic growth. Changes in monetary policy can impact borrowing costs, liquidity, and business investment decisions.

Trade Balance: The trade balance represents the difference between a country's exports and imports. A positive trade balance (surplus) occurs when exports exceed imports, indicating a competitive economy and potential currency strength. Conversely, a negative trade balance (deficit) can indicate a reliance on imports and potentially impact currency value.

Government Debt: The level of government debt, also known as public debt, can impact an economy's stability and growth prospects. High levels of government debt can lead to increased borrowing costs, reduced public investment, and potential long-term economic challenges.

Exchange Rates: Exchange rates determine the value of one currency relative to another. Exchange rate fluctuations can impact international trade, competitiveness, inflation, and the cost of imports and exports.

Consumer and Business Confidence: Consumer and business confidence indicators reflect the sentiment and expectations of households and businesses regarding economic conditions and future prospects. High confidence levels generally indicate positive expectations, increased spending, and investment.

These macroeconomic factors are interconnected and can influence each other. They provide a framework for policymakers, businesses, and investors to assess the overall economic environment and make informed decisions.

Objective of the study

The objective of this paper is to provide a comprehensive analysis and synthesis of existing research on the relationship between macroeconomic variables and stock market performance. The specific objectives are-

- To identify and summarize relevant literature
- To assess methodologies and approaches
- To highlight gaps and future research directions

Review Methodology

Drawing on established methodologies outlined in previous scholarship (Palmatier, 2016; Rana & Paul, 2017), we established the parameters of our study to undertake comprehensive manual and electronic searches for scholarly articles pertaining to ancient Indian wisdom and select management concepts that are catalogued and/or referenced in the Sciences Citation Index/Social Science Citation Index (SCI/SSCI). The study conducted by Palmatier et al. (2018) and Kozlenkova, Samaha, & Palmatier (2014) centred on the utilisation of JSTOR, Emerald, ScienceDirect, Wiley Online Library, and Google Scholar. We conducted a comprehensive search across various databases utilising specific keywords, namely 'macro-economic factors, stock market, BSE, NSE, GDP, exchange rate, Crude oil prices, inflation and other possible factors'.

This procedure yielded in excess of approximately 200 investigations. Subsequently, the conventional literature review methodology was employed to manually curate the collection of publications based on three distinct criteria. The process of skimming and scanning was employed to exclude studies that did not incorporate the chosen concepts or epics, as outlined by Palmatier et al. (2018). Thus, the ultimate collection of studies included a total of twenty publications from academic journals spanning the period from 2010 to 2020.

Discussions

Baranidharan (2020) in their study examined the transmission of BSE stock returns in correlation with the macroeconomic variables regime. The study employed a collection of

macroeconomic indicators, specifically FII, IFT, M3, Production Index, and WPI, as the sample for examination. The data pertaining to the chosen indicators was procured from the official website of the Reserve Bank of India and www.bseindia.com, encompassing the time frame spanning from January 1st, 2010 to December 31st, 2019. The study employed a range of statistical methodologies, such as Descriptive statistics, Correlation, Granger causality test, and VECM. The research findings indicate that the selected macroeconomic variables demonstrated a degree of normal distribution, and that there existed a positive correlation between the level of risk and returns during the study duration. The research employed the Vector Error Correction Model (VECM) to establish a correlation between the variables of BSE Sensex and the deviation from the long-term equilibrium output in the previous period. The study's results suggest that investors in the manufacturing sectors should consider the macroeconomic variables that have been identified when developing their investment strategies

Jain & Singh (2020) in their study examined the impact of two prominent macroeconomic indicators, specifically the Index of Industrial Production (IIP) and the Foreign Exchange Rate (US Dollar-INR), on the variability of stock prices in the Indian Stock Market. The BSE Sensex was employed as a surrogate for monitoring the oscillations in the Indian equity market for the objective of this inquiry. The study was conducted over a period of 32 quarters, commencing from the fiscal year 2011-12 and concluding in 2018-19. The researchers utilised Correlation and Regression Analysis as statistical methods to carry out the investigation and obtain the results. According to the research findings, the Indian stock market is impacted by two primary macroeconomic indicators, specifically the Index of Industrial Production (IIP) and the Exchange Rate. The Indian Industrial Production (IIP) exerts a positive and statistically significant influence on the Sensex, while the effect of the exchange rate on the Sensex is negative and relatively less pronounced.

Reddy et al (2019) in their study considered six macroeconomic variables, namely Crude Oil Price, Gold Price, Silver Price, Exchange Rate, Inflation, and Interest Rate, to investigate and evaluate their influence on chosen sectoral indices at BSE, SENSEX, S&P BSE BANKEX, S&P BSE Oil and Gas, S&P BSE Capital Goods, S&P BSE Consumer Durables, S&P BSE Reality, S&P BSE PSU, and S&P BSE Power. The findings of the study indicate a positive correlation between the gold price, exchange rate, consumer price index, and interest rate with four indices. However, the crude oil price and silver price exhibit a positive correlation with only three indices. The findings indicate that investors must consider all relevant variables when making investment decisions, and investment bankers similarly attend to these indicators prior to advising their clients.

Garg and Kalra (2018) conducted a study to investigate the impact of macroeconomic variables on the Indian stock market. The findings of the study suggest that there exists a positive correlation between Sensex and macroeconomic indicators, with the exception of average inflation and unemployment rate, which exhibit a negative correlation.

Sailaja & Mandal (2018) investigated the correlation between specific external macroeconomic factors and various sectoral indices at the Bombay Stock Exchange (BSE). The study has focused on three macroeconomic variables, namely Crude Oil prices, Foreign Institutional Investments, and Dollar value. These variables have been selected to amplify the influence of external macroeconomic factors on diverse sectors of the Indian economy, as represented by the Sectoral Indices at BSE, including BSE Auto, BSE Bank, BSE Energy, and

BSE IT. The monthly statistical data pertaining to the aforementioned variables has been utilised over a span of seven years, encompassing the time frame from April 2009 to March 2015. The Multiple Regression equation model (Galton, 1877) was utilised via SPSS-20 to investigate the correlation between the aforementioned variables. The findings indicate a significant correlation among the variables examined. Specifically, the analysis suggests that Foreign Institutional Investment (FII) is the sole macroeconomic variable that exerts an impact on all sectoral indices in India. Conversely, the remaining macroeconomic variables appear to have a selective influence on different sectoral indices.

Giri and Joshi(2017) in their research examined the association between a set of macroeconomic indicators and stock prices in the Indian economy, both in the short-term and long-term. The study employed annual data covering the period from 1979 to 2014. The study's results indicate a positive correlation between stock prices and economic growth, inflation, and exchange rate. On the contrary, the research demonstrates an inverse relationship between the prices of crude oil and stocks.

Bhargava et al (2016) conducted a study utilising time series analysis to examine the factors that impact stock prices in India. The study analysed the association between various macroeconomic indicators, such as inflation, the index of Industrial production (IIP), money supply, oil prices, exchange rates, gold prices, and gross domestic product (GDP), and stock prices by utilising time series regression. The study's results suggest that only the exchange rate, oil prices, and inflation have a significant impact on stock prices. Furthermore, it was noted that there exists a negative correlation between the exchange rate and inflation with stock prices, while oil prices demonstrate a positive correlation. The study's results suggest that there is an absence of a statistically significant relationship between the price of gold and stock prices.

Kotha Kumar Kiran and Sahu Bhawna (2016) conducted a study entitled "Large scale financial variables and Indian securities exchange: investigating long and short run connections." Data was collected between July 2001 and July 2015 for the purpose of this study. The researchers evaluated four comprehensive financial variables, including swap scale, discount value list, t-charge rates, and M3. The study illustrates the presence of a long-term relationship between BSE SENSEX and a selected set of four macroeconomic indicators.

Vyong (2016) examined the influence of macroeconomic factors on the price index of Vietnam's stock market, with a specific focus on the VN-Index. The empirical research has demonstrated that the long-term performance of the VN-index in the Vietnamese stock market is influenced by various macroeconomic factors, such as real economic activity (as indicated by industrial output variables), M2, and oil prices.

Gurloveleen and Bhatia (2015) in their study specifically focused on manufacturing firms listed on the BSE 500. The researchers evaluated ten comprehensive financial indicators, including expansive cash, call cash rate, unrefined petroleum costs, swapping scale, net monetary shortage, remote trade saves, outside institutional speculators, record of mechanical generation, swelling rate, and exchange adjust. The results indicate a lack of correlation between the selected variables.

Khaled et al (2015) produced examine on "Effect of macroeconomic factors on securities exchanges: Evidence from developing markets". Information gathered from January 1998 to January 2014 for the information examination. An outcome demonstrates that, there is

a typical relationship in Egypt between showcase records and full scale financial elements. Similar conveys for Tunisia aside from CPI (Consumer Price Index), which had no importance with the share trading system.

Wycliffe and Peter (2014) investigated the influence of macroeconomic factors on the performance of the securities market in Kenya. The study encompassed information from the period of 2003 to 2013. The scholars utilised the methodologies of arbitrage pricing theory and the capital asset pricing model (CAPM) to ascertain the impact of macroeconomic factors on equity returns. Based on the research results, it has been ascertained that the stock market returns in Kenya are impacted by variables such as the money supply, interest rates, and exchange rates.

Singh (2014) conducted a study on the Indian stock market and macroeconomic factors. The researcher selected the time frame spanning from January 2011 to December 2012 for the purpose of his inquiry. She employed a set of ten variables, including but not limited to money supply, interest rate, exchange rate, oil prices, gold prices, silver prices, trade deficit, industrial production index, foreign institutional investments, and wholesale price index. The individual examined the aforementioned components within two securities exchange records, namely BSE Sensex and CNX Nifty. The study indicates significant relationship between the variables.

Swati et al(2014) in their study evaluated five macroeconomic variables, including exchange rates, foreign institutional investments, crude oil prices, current account balance, and foreign exchange reserves. The impact of said variables on five sector-specific files at the national stock exchange, namely CNX Auto, CNX Vitality, CNX IT, CNX FMCG, and CNX Bank, was examined. The findings reveal that Foreign Institutional Investments have a significant impact on all sectoral records in India, in conjunction with other large-scale financial factors. Additionally, various macroeconomic factors have a specific influence on different sectoral records.

Patel Samveg (2012) conducted a study regarding "The Influence of Macroeconomic Factors on the Performance of the Indian Stock Market". He has analysed the monthly data spanning from January 1991 to December 2011. The individual in question considered eight significant monetary variables on a large scale, including but not limited to interest rates, money supply, exchange rates, gold and silver rates, inflation, oil prices, and industrial production index. The researcher conducted an analysis and evaluation of the effects of said components on two stock market indices, namely SENSEX and CNX Nifty. According to the statement, it can be inferred that the loan fee exhibits an I(0) behaviour, while SENSEX, Nifty, exchange rate, gold value, silver value, list of modern generation, and oil costs exhibit an I(2) behaviour. According to his analysis, there exists a correlation between macroeconomic indicators and industry-specific data.

Khan Nauman Muhammad and Zaman Sharif (2012) analysed the impact of macroeconomic factors on stock prices. The study utilised empirical evidence from the Karachi Stock Exchange (KSE) in Pakistan. Data collected between 1998 and 2009. The study incorporated seven key macroeconomic indicators, namely exchange rate, consumer price index, foreign direct investment (FDI), crude oil prices, international trade, Gross Domestic Product (GDP), and money supply. According to recent findings, the aggregate national output and trade rates have a positive impact on stock prices.

Mohapatra and Panda (2012) in their study examined the relationship between the top ten increases and decreases of Sensex and the corresponding net flows of FIIs. Additionally, they analysed the impact of various macroeconomic factors, including FIIs, on Sensex over a 10-year period. The findings of their study suggest that the Industrial Production Index (IIP) and the exchange rate between the US dollar and the Indian rupee (USD/INR) have a more significant influence on the stock markets than FIIs. These studies provide a robust subjective foundation and framework for examining the presence of a correlation between external macroeconomic variables and sectoral indices of the NSE.

Pal and Mittal (2011) in their study examined the correlation between the Indian stock markets and macroeconomic variables. The researchers utilised quarterly data spanning from January 1995 to December 2008 and employed Johansen's co-integration framework for analysis. The findings of their research indicated the presence of a long-term correlation between the stock market index and the chosen macroeconomic indicators. The findings of their analysis indicate that the BSE Sensex is notably influenced by inflation and exchange rate, whereas interest rate and gross domestic saving (GDS) do not hold significant weight.

Buddy Karam and Mittal Ruhee (2011) conducted a study on the impact of macroeconomic indicators on the capital markets of India. The objective of this study is to investigate the enduring significance of the relationship between the Indian stock markets and macroeconomic factors such as interest rates, inflation rates, exchange rates, and gross domestic savings of the Indian economy. The investigation drew upon data ranging from December 2008 to January 1995. The findings indicate a lack of correlation between macroeconomic indicators and industry-specific performance.

Sharma and Mahendru (2010) in their study investigated the influence of several macroeconomic factors, including exchange rate, foreign exchange reserves, gold price, and inflation, on the stock market. The findings of the research indicate that solely gold and exchange rate possess noteworthy impact on the performance of the stock market, while the influence of inflation rate and foreign exchange reserves on stock prices is restricted.

S.no.	Year of Publication	Authors	Variables		Findings
			Macro Economic Factors	Representative of Stock Market	
1	2020	Baranidharan	FII, IFT, M3, Production Index, and WPI	BSE Sensex	BSE stock returns correlate with macroeconomic factors.
2	2020	Jain & Singh	IIP, Foreign Exchange Rate	BSE Sensex	TheIndianIndustrialProduction (IIP)exerts a positiveandstatistically

					significant influence on the Sensex, while the effect of the exchange rate on the Sensex is negative and relatively less pronounced
3	2019	Reddy et al	Crude Oil Price, Gold Price, Silver Price, Exchange Rate, Inflation, and Interest Rate	BSE, SENSEX, S&P BSE BANKEX, S&P BSE Oil and Gas, S&P BSE Capital Goods, S&P BSE Consumer Durables, S&P BSE Reality, S&P BSE PSU, and S&P BSE Power	Macro- economic variables impact stock market.
4	2018	Garg and Kalra		BSE Sensex	there exists a positive correlation between Sensex and macroeconomic indicators,
5	2018	Sailaja & Mandal	Crude Oil prices, Foreign Institutional Investments, and Dollar value.	BSE Auto, BSE Bank, BSE Energy, and BSE IT.	significant correlation among the variables examined

					positive correlation between stock prices and economic
6	2017	Giri and Joshi	economic growth, inflation, prices of crude oil and exchange rate.	BSE Sensex	growth, inflation, and exchange rate. On the contrary, the research demonstrates an inverse relationship between the prices of crude
					oil and stocks.
7	2016	Bhargava et al	Industrial production (IIP), money supply, oil prices, exchange rates, gold prices, and gross domestic product (GDP)	BSE Sensex	There exists a negative correlation between the exchange rate and inflation with stock prices, while oil prices demonstrate a positive correlation. The study's results suggest that there is an absence of a statistically significant relationship between the price of gold and stock prices.
8	2016	Bhawna et al	swap scale, discount value list, t-charge rates, and M3	BSE SENSEX	Long-term relationship exists among the variables

9	2016	Vyong	real economic activity (as indicated by industrial output variables), M2, and oil prices	Vietnam's stock market, VN- Index	Macro economic factors have positive affect on stock market are correlated
10	2015	Bhatia et al	expansive cash, call cash rate, unrefined petroleum costs, swapping scale, net monetary shortage, remote trade saves, outside institutional speculators, record of mechanical generation, swelling rate, and exchange rate	BSE 500	lack of correlation between the selected variables.
11	2015	Khaled et al	СРІ	Tunisia Stock Market	No effect on share trading system
12	2014	Peter et al	money supply, interest rates, and exchange rates.	Kenya Stock Market	stock market returns in Kenya are impacted by variables
13	2014	Tripathi L K, Parashar Arpan and Jaiswal Swati	exchange rates, foreign institutional investments, crude oil prices, current account balance, and foreign	<i>,</i>	

			exchange reserves		
14	2014	Singh P.	money supply, interest rate, exchange rate, oil prices, gold prices, silver prices, trade deficit, industrial production index, foreign institutional investments, and wholesale price index.	BSE Sensex and CNX Nifty	macro economic factors and stock market are correlated
15	2012	Khan & Sharif	exchange rate, consumer price index, foreign direct investment (FDI), crude oil prices, international trade, Gross Domestic Product (GDP), and money supply	KSE (karachi Stock Exchange)	Macro economic factors have positive affect on stock market are correlated
16	2012	Mohapatra and Panda	FII, IIP, EXCHANGE RATE	NSE	Industrial Production Index (IIP) and the exchange rate between the US dollar and the Indian rupee (USD/INR) have a more significant influence on the

					stock markets than FIIs.
17	2012	Patel Samveg	interest rates, money supply, exchange rates, gold and silver rates, inflation, oil prices, and industrial production index.	SENSEX and CNX Nifty	there exists a correlation between macroeconomic indicators and industry-specific data.
18	2011	Mittal & Buddy	interest rates, inflation rates, exchange rates, and gross domestic savings	BSE	absence of link between macroeconomic data and industrial performance.
19	2011	Pal and Mittal	inflation and exchange rate,interest rate and gross domestic saving (GDS)	BSE Sensex	Inflation and currency rate affect BSE Sensex, while interest rate and GDS do not.
20	2010	Sharma and Mahendru	exchange rate, foreign exchange reserves, gold price,inflation rate, foreign exchange reserves and inflation	BSE Sensex	Gold and exchange rate affect stock market performance more than inflation and foreign currency reserves.

The objective of this paper is to provide a comprehensive analysis and synthesis of existing research on the relationship between macroeconomic variables and stock market performance. The specific objectives are-

- Identify and Summarize Relevant Literature: the different authors in their study have mostly considered crude oil prices, gold prices, exchange rate, money supply, interest rate, inflation, FII as the major macro economic factors affecting the stock market. The studies conducted in India have either considered SENSEX or NIFTY as the representatives of Indian stock market. Based on these studies it can be concluded that macro economic factors do decide the direction and magnitude of stock market movement.
- 2. Assess Methodologies and Approaches: Researcher use different types of statistical test to find appropriate results on SPSS and EViews. Different techniques available for analyzing financial data are- time series analysis, correlation analysis and multiple regression analysis. To analyze time series data normal distribution of data is checked by Jarque-bera test is applied at 5% significance level. Unit root test is applied to check the stationarity of data in other words to check the flow of time series around mean values. To make the series stationary Augmented Dickey Fuller, Levin, Lin & Chu and ADF PP test has been applied. After stationary of data has been confirmed, the analysis has proceeded to check the co-integration by Johansen co-integration test. Granger causality test is used to find bidirectional, unidirectional and no causal relationship causal relationship. The association amongst stock market and macroeconomic variables has been studied using Pearson's correlation analysis. Correlation coefficients are expended for observing short-run co-movements and multi-collinearity among the variables. Some of the variables have correlation coefficient larger than 0.8. If correlation coefficient is larger than 0.8, it specifies that multi-collinearity subsists. To overcome the difficulty of multi-collinearity and have effectual outcomes, factor analysis approach of data reduction has been pertained. In this analysis, it is a statistical extent, which tries to establish association amongst a dependent variable and the other independent variables. To analyze the time series data multiple linear regression models have been pertained to recognize the consequence of macroeconomic variables on stock market. To analyze the panel data first apply POLS (pooled ordinary least square) follow the assumption that intercept are same for all the variables. Second step apply Bruesch-pagan test apply with null hypothesis is no effect (intercept is same) if P > .05hypothesis is accepted and model is correct and conclude the study. If reject then use random effect model and apply Hausman test with null hypothesis is random effect is preferred and accept if P>0.05 model is correct and conclude the study if rejected then Fixed effect model is preferred It discusses the strengths and limitations of different research methods employed in studying the impact of macroeconomic factors on the stock market.
- 3. Identify Consistent Patterns and Inconsistencies: By synthesizing the findings of multiple studies, this study found that overall there exists significant relation among the macro-economic factors and stock market. Gold prices, exchange rate, IIP, inflation rate, foreign exchange rates FIIs, FDI, and all others do affect the stock market but one

study found that there is an absence of a statistically significant relationship between the price of gold and stock prices. This research gap gives the scope of analyzing the effect of gold prices CPI, interest rate and GDS on stock prices with larger time frame by applying econometrics analytical tools.

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