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Symmetric impact of Trade, exchange rate, and inflation rate on Stock Market in Pakistan: New evidence from Macroeconomic variables

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Abstract
This study's primary objective is to investigate how the stock market affects the rate of inflation, exchange rate, US dollar and trade are related to each other or not. The regression analysis or Pearson correlation is used. Secondary and monthly data is used. This research solve the Pakistan stock market is considerably impacted inflation rate, exchange rate US dollar, and trade. The findings indicate that there is a considerable positive correlation between the inflation rate and the stock market. The US dollar exchange rate has a substantial negative correlation with the Pakistani stock market. Conversely, trade and the Pakistani stock market have a strong positive correlation.
Keywords: Inflation rate, Exchange rate US dollar, Trade, KSE100 Index, Regression and Correlation test

1. Introduction

The economy's growth relies heavily on the interplay macroeconomic variables and the stock market. The stock market functions as a platform for investors to purchase company shares, enabling businesses to raise funds for their operations. Ethical crowd fundraising in a private stock exchange can have similar effects as public exchanges. Financial markets include various instruments like stocks, bonds, currencies, and derivatives, and are reliant on information availability for appropriate price setting. Financial markets facilitate the flow of savings and investment, supporting capital accumulation and production. Improvements in the financial sector promote major investments and growth while mitigating inflation (Ahmad Shahid et al., 2023). Macroeconomic factors like inflation rate, exchange rates, and trade impact the stock market's performance with operations dating back to 1947, the Karachi Stock market (KSE) is the biggest stock market in Pakistan. The KSE has 584 listed companies with a market capitalization of Rupees. 4836.362 billion as of May 27th, 2013. Exchange rates influence the profitability of a company's import and export activities. Stock prices are positively affected by favorable exchange rate movements, while unfavorable movements lead to a decline in standard values (Huang et al., 2024; Awan et al., 2023; Shahzadi et al., 2023).

Investors aim for a positive real return on their stock portfolio, especially during inflationary periods. Higher inflation rates negatively affect investors, and less inflation is preferred as it encourages stock market investment. Inflation affects both lenders and borrowers, with higher inflation rates favoring debtors over creditors. High inflation also tends to increase stock price volatility. Macroeconomic variables and stock market performance are closely intertwined. For example, one of the most important elements affecting the performance of the stock market is exchange rates. Exchange rates have an impact on how competitively strong businesses are in global commerce (Minhas et al., 2024; Shahid et al., 2024). Strong local currencies increase the cost of exports and lower local industries' ability to compete on the world market. Conversely, a weak local currency makes exports cheaper and enhances the competitiveness of local industries. The inflation rate is another important macroeconomic factor that influences the stock market. The rate of growth in the average price of goods and services within an economy is known as inflation. High inflation rates reduce the purchasing power of consumers and lead to a decline in the value of money. Investors are wary of high inflation rates since they can lead to poor economic conditions and make stock market investments risky. Inflation also affects lenders and borrowers (Tabassum et al., 2023; Zhao et al., 2023; Ullah et al., 2023).

The interest rate is another macroeconomic factor that affects the stock market's performance. Central banks have an impact on the interest rate, which is the price of borrowing money. Borrowing money is expensive when interest rates are high, which might lower the amount of money available purchasing stocks. Conversely, low-interest rates make borrowing cheaper, which can stimulate investment in the stock market (Abro et al., 2024). To sum up, the stock market is a significant economic entity that is impacted by macroeconomic variables such as interest rates, inflation, and currency rates. These elements have an impact on investor behavior as well as the competitiveness and profitability of businesses. When making investment decisions or putting economic plans into action, policymakers and investors need to take these aspects into account (Chaudhary et al., 2023; Javaid et al., 2023; Shahzadi, Sheikh, et al., 2023).

1.1. Research Gap

In this current study the researcher main purpose is to analyze, impact of macro-economic variable, Inflation rate, exchange rate US dollar, trading in the stock market of Pakistan.

1.2. Objective

This study's main objective is to observe or look into the
Impact of the inflation rate on the performance of the stock market
Exchange rate US dollar on the performance of the stock market
Balance of trade on the performance of the stock market
Karachi stock exchange (KSE100 INDEX) on performance of stock market

1.3. Research Question

Does macroeconomic variable have impact of stock market?

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1.4. Research Problem

The influence of the KSE100 stock market index, trading, US dollar exchange rate, and inflation rate are macroeconomic variables that are significant to the research problem. Investors get more uneasy about their stock market investments as inflation increases (T. A. Shahid et al., 2023). In light of the rising US dollar exchange rate, declining value of the Pakistani rupee, rising dollar value, and challenging import-export trade, we have highlighted in this study the effects of macroeconomic variables on the performance of the standard market. The study conducted to notice association among the macro-economic indicators exchange rate US dollar, inflation rate, trade is effect on the stock market.

Chapter 1 discussed about introduction (Background, Importance, Research Gap, Problem Statement, Research Question and Objective). In chapter 2 discussed about Literature review (Each variable define, History, Types, Benefits, Issues other similar variables). In chapter 3 discussed about Research Methodology (Hypotheses, Critical framework, Investigation plan, Period distance, Facts gathering, Facts inquiry). In chapter 4 discussed about Result (Recoding variables, Frequencies and Tables, Descripted Strategy, Correction and regression, summary of result). In chapter 5 discussed about conclusion (Discussion of result with comparison, Conclusion). In chapter 6 References are given about the related studies.

2. Literature

In order to better understand how the property and real estate industries on the Indonesia Stock Exchange were affected by GDP growth, inflation, and stock markets between 2005 and 2013, this study will identify and analyze those factors. The first theory claims that the stock price is negatively impacted by the inflation rate, and the second claims that the stock price is positively impacted by GDP growth (Li et al., 2022; Song et al., 2024; Naz et al., 2022). The annual financial statements of the company stock prices as calculated using the Yearly Closing Price. The real estate and industrial property proposed on the Indonesia Stock Exchange between 2005 and 2013 served as the study's model. Using the sampling method, ten businesses and pieces of real estate that fit the criteria for the research sample were gathered as a whole sample. The consumer price index rate measures inflation, and return on assets, which measures GDP growth resulting from changes in nominal GDP, measures inflation (Fabiana Meijon Fadul, 2019; Zahra et al., 2023; A. U. Shahid et al., 2022).

The stock market is a significant economic variable for a nation, thus it's critical to accurately identify every factor that hinders the stock market's success, according to the study's researchers. This study looks at the relationship between macroeconomic indicators and the performance of the Nigerian stock market using annual time series data from 2009 to 2018 (T. A. Shahid, 2023). These figures are derived from the CBN Statistical Bulletin, the International Monetary Fund, and the World Bank Development Indicators. The results of the regression analysis show that the share price index is significantly impacted negatively by the inflation rate. The hypothesis of GDP and stock market performance states that the share price index is greatly and favorably impacted by GDP. According to the study and other studies, the economy's growth should be sustained to keep the stock market robust, and the government should control macroeconomic variables for inflation to prevent any negative effects on the performance of the stock market (Studies, n.d.; Hafiza et al., 2022; S. ur Rahman et al., 2022).

In this study researcher examined the macroeconomic variables are necessary for any change in the economy of a country. These variables are all affected by sudden changes that have a number of impacts on the economy. The regulatory authority works directly and changes their policies in the case of any change in order to set the economy on a path toward development v(T. A. Shahid, 2024). Finding out how Pakistan's GDP and inflation rate affect stock values is the main objective of the study. Month-by-month data from January 1st, 2001, to December 31st, 2011 were analyzed for this research project. To ascertain the potential influence of macroeconomic variables on stock prices, the data has been the subject of cointegration and Granger causality analyses (K. M. Rahman & Ahmed, 2014; Info, 2022; Usman et al., 2023).

In this study researcher indicates the adjusting for inflation is one of the government of Vietnam's primary goals. The results accept the concept of the 6% inflation level as well as the negative impacts of high inflation and too-low inflation above the level on GDP growth. The impacts of inflation on GDP growth are negative if examined as a whole. Finding the 1940s and 1950s inflation and growth models is the goal of this research concentrate on the investment replacement process by which increasing inflation made investment more capital because it is more attractive to maintain than money activity, as well as throughout move to faster growth (Irfan et al., 2024; S. Rahman & Bakar, 2019; Ur Rahman & Bakar, 2018). The experimental Growth and inflation are shown as inversely connected. Analyzed explanations of this negative correlation are then implemented into a straight forward model of money maximization. When real balances are lower with higher inflation, factors of production are less efficient, and there may be a relationship between government expenditure and the implementation of the inflation tax, higher inflation is related to weaker growth. Analysis of relative dynamics and steady states show the generally negative correlation between inflation and growth, both in change processes and stable states.(Barro, 2020). In this study the researcher observed the Economic growth is the improvement in a nation’s ability to handle the population's working capital requirements. Measuring the gross domestic product makes it possible to determine if economic growth is high or low (GDP). Given the fact that inflation has almost no impact on GDP, it can be used in this study as a supporting variable of GDP (Semuel, Hatane & Nurina, 2015; Nkechukwu et al., 2013).

The purpose of this observational study is to investigate the connection between stock prices and inflation in Pakistan. Numerous excellent studies conducted in the past have looked at the relationship between inflation and stock price and have come to fresh results, many of which point to a positive correlation. Nonetheless, certain tests revealed a negative association between these two phrases. Based on a ten-year analysis of data from the Karachi Stock Exchange (KSE 100), the analytical findings of this study show a negative relationship between inflation and stock price Moreover, companies just join the stock market at periods of low stock prices, waiting for the central bank to approve the company's capital market investment plan. Furthermore, the share price of the company is greatly impacted by the rate of inflation. This means that those with low incomes will have more money to invest in products or stocks that will reduce inflation and stock prices if monetary policy tightens (Qamri et al., 2015; Zulfiqar et al., 2022).

In this study researcher indicates the stock market can be realized as a good measure of a nation's gross domestic product health of the economy. The movement of the stock market index also shows the various business and economic cycle stages. The stock

market's aspect movements showed that the relationship between a nation's economic factors and stock market activity. Therefore, any stock market index's movement is strongly affected by the movement of macroeconomic variables. The GDP's movement is one of many macroeconomics variables that is very important. The performance of the Indian economy is measured in the Gross Domestic Product. Empirical studies research has been inspired by the latest changes in the GDP and continuing developments in the Indian stock market. The existence of a direct causal relationship is indicated by the regression analysis and Similarity Measures Granger causality test. Changes in the stock market will have an impact on GDP, and vice versa (Indian et al., 2012; (Ur Rahman & Bakar, 2019).

This study of the research looks about how Pakistan's stock market returns are impacted by the macroeconomic indicators like inflation. Secondary data was gathered from January 2007 to December 2012, and the inflation rate was used in conjunction with the Pakistan Karachi Stock Exchange 100 index as a gauge for stock market performance and macroeconomic indicators. To analyze the data, multiple linear regression has to be done. The analysis found that there is just a possible connection between Market returns and macroeconomic variable. The research supports the results of previous research, and discussions of conclusions and solutions of the following.(Ilahi et al., 2015; Hakim Ali et al., 2021).

In this study researcher claimed the investment replacement method, which claimed that increase in inflation made keeping investment more desirable to holding money, results in higher capital investment and, during the period of transition, higher growth, was underlined in frameworks of inflation and growth in the 1960s. Empirical findings, however, shows that the growth and inflation are negatively correlated. Researched explanations of this negative correlation are incorporated into a simple model of money maximizing. When lower balances decrease the performance of the factors of production and because there may be a connection between government expenditure and the application of the inflation tax, higher inflation is related to lower growth. Comparing dynamics and stable levels are examined, and it is shown that inflation and growth, both in steady conditions and during change processes, are usually negatively correlated (Ilahi et al., 2015;Ehigiamusoe et al., 2021; Investment et al., 2022).

In this study the researcher we have allow to examine how inflation has impacted Brazil's amounts earned from 1985 to 2002. The findings, which were based mainly on time-series data and analysis and then on panel time-series data and analysis and were stable for different pricing purposes and stock market development indicators, show that inflation during the period has negative impact on economic development. The main conclusion from the findings is that poor macroeconomic performance, as indicated in Brazil by high inflation rates, has negative impact on economic development, a variable significant for affecting people like economic growth and income inequality. As a result, obtaining a deeper and more active economic sector with all of its associated advantages requires first maintaining low and stable inflation and all that it requires.(Günther & Harttgen, 2006; Qureshi et al., 2022).

In this study the researcher observed The data from September 1995 show no indication of a stable after excluding countries experiencing periods of high inflation, when the annual inflation rate exceeds 40%, the relationship between growth and inflation, at any stage. However, growth has a tendency to decrease significantly in isolated crises of high inflation and to surprise no one by recovering significantly after inflation decreases. Maybe inflation crises are only cyclical, or maybe they have a positive stomachic impact over time. The condition has improved with the addition of time series data set, but an average empirical model is still unclear. High-inflation crises, according to Bruno and Easterly's non parametric concept, were periods when overall inflation is greater than 40%. They find no indication of a steady correlation between inflation and growth, regardless of time, by excluding economies with significant inflation crises. They do find that growth has decreases in isolated crises of high inflation, then very strong recoveries after inflation decreases. The Macroeconomics and Growth Unit, Economic Research Group, and the Department of the Economics jointly produced this study as a part of an overall Bank program to look at the variables that impact economic growth.(Bruno & Easterly, 1998)

In this study researcher observed the assessments of the relationship indicate that inflation and growth are generally negatively correlated, I show that such a relationship has two stabilities the problems that impact all model assumptions. The first point is that the growth inflation results are very sensitive to adjustments in the country sample, which is mainly limiting to low- and moderate-inflation countries. The Second point is that the data are equally subject to changes in the period of analysis. These results should further encourage utilizing cross-county growth regression analysis to measure the impact of inflation These conclusions should to makes it less common to analyze inflation's impacts utilizing cross-county growth regressions. (Clark, 1997)

This research explores the relationship between growth and inflation at the OECD stage using such as converge calculations. It also explores if the correlation suggests up after just a number of modifications to the empirical studies that aim to solve the most common objections of this research. The following are the main results: 1) The knowledge of high-inflation economies cannot describe the negative correlation between growth and inflation 2) When country-specific impacts are taken into consideration in the empirical model, the expected cost of inflation remain significant 3) The measured correlation cannot be rejected on the grounds of reverse causation from GDP to inflation.(Eok & Oecd, n.d.). This study researcher indicates an analytical attempt to investigate into the stock prices, inflation, and interest rates have changed in Greece between 1988 and 1999. It is important for an investor to determine if the stock markets follow inflation or interest rate changes because the majority of the time period under analysis has been defined by decreasing inflation and interest rates. The results confirmed the relationship between stock prices and inflation.(Apergis & Eleftheriou, 2002).

This relationship that the theory seeks to describe. The story's major theme is anticipating, as the brief description up top makes clear; the expectation made in this article will be that of reasonable expectations. The structure of the essay is as follows. In Part I, the theory is explained, and in Sections II through IV, the economy's behavior can be explained under the extreme but useful assumption that prices will always maintain constant. The research is extended in Sections V and VI to cover the situation in which price will eventually approach their equilibrium. In this study the researcher observed in a collection of developing economies, we discover that the interest rates are significantly counter cyclical and give rise the economy, consumption is much more variable than growth, and economic cycles are more unstable than in developed economies. There are also differences over time and sectors. The further factor that separates market situation from deflation periods is that changes in interest rates and inflation have a potential to have an impact that is more evident under extraordinary market situation.(Jareño et al., 2016)

The goal of this research is to indicate that how banking system, which is registered on the Indonesia Stock Exchange, is impacted by interest rates, inflation with profitably working as an intermediary indicator. Purposeful sampling was utilized in the research method, with a total of 12 banking institutions included in a sample of financial statements published between 2015 and 2019. The Utilizing intervening factors, the research process utilizes partial least squares to indicate how external variables affect endogenous variables. The study's findings suggest that interest rates and inflation have a big influence on profitability. Stock returns are significantly influenced by profitability, whereas inflation and interest rates have the opposite effects. The impact of interest rates, inflation on stock returns cannot be changed by profitability.(Kusumaningtyas et al., 2021)

In this article the researcher observed we conduct an empirical study of trading orders' effects on the market. We are particularly interested in large, incrementally executed trading orders, also known as hidden orders. They are rebuilt using data from the Spanish Stock Exchange and the London Stock Exchange along with information regarding market member codes. We discover that market impact is significantly concave, roughly increasing as order size squared. Also, as a given order is carried out, the impact increases over time in accordance with a power-law; once the order is completed, it returns to a level that is between 0.5 and 0.7 times what it was at its peak. With the exception of minor variations at the start and end of the transaction, we see that hidden orders are executed at a rate that roughly corresponds to trading in the general market.(Moro et al., 2009)

This study examines the possible impact of stock price trading on 769 tax-exempt (mostly pension) funds' holdings using fresh data. We discuss two aspects of the trading that these money managers engage in: herding, which is the practice of buying (selling) the same stocks at the same time that other managers do, and positive-feedback trading, which is the practice of purchasing prior winners and discarding prior losses. These two elements of trading are frequently cited in support of the claim that institutions cause stock prices to fluctuate. According to the findings, pension managers do not actively seek these potentially unstable behaviors.(Lakonishok et al., 1992)

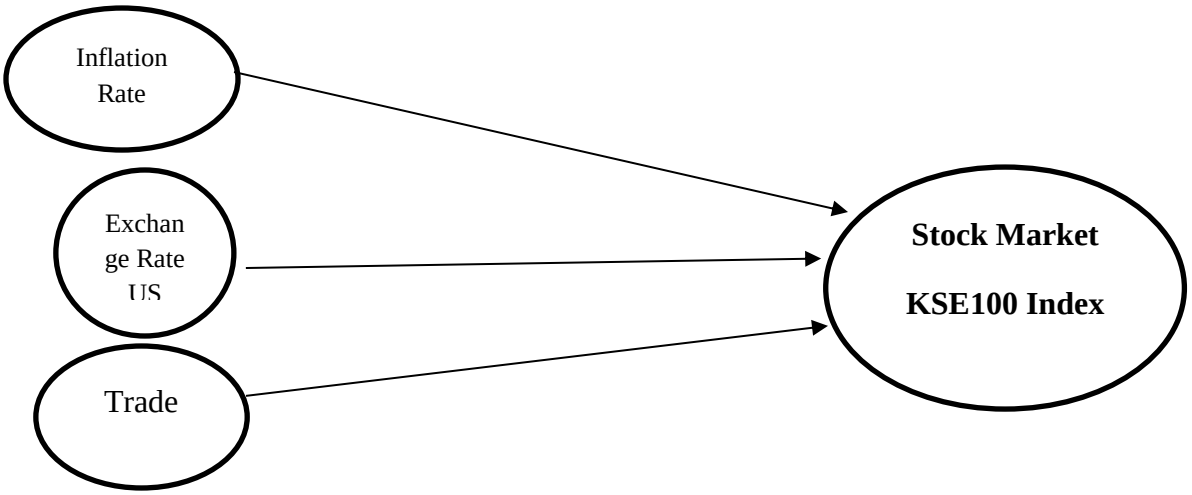
This study examines the function and behavior of the block trader in the economy. We identify the block trader's ideal method for forming a group of buyers and sellers within the framework of a sequential choice model. We demonstrate the block trader's pricing technique and the circumstances under which he takes a position. We also examine how the knowledge gained through the block trader's syndication activity affects his decisions. We also show how information impacts on secrecy pricing may be produced by the trading process itself.(Burdett & O'hara, 1987)

In this study, we investigate whether trading on an anonymous market is more informed than trading on a non-anonymous market. According to popular belief, institutional traders prefer to transact in an anonymous atmosphere, whereas market makers safeguard themselves in a non-anonymous situation by directing informed trades to other trading venues. We undertake our research utilizing the distinctive institutional features of the London Stock Exchange, where a non-anonymous voluntary dealer market and an anonymous electronic order book market (SETS) coexist. Using metrics based on both trade flow (PIN) and price impact, we quantify asymmetric information. PIN is identical across marketplaces, but our data on how transactions affect prices provides solid evidence that dealers can recognize educated order movement. Informed traders may not gain much from dealers, as the permanent price impact of trades is substantially lower on the Dealer market than on SETS. Additionally, we discover that Dealer markets can successfully compete with SETS for uninformed order flow. Because most large deals are routed to the Dealer market rather than the SETS, institutions also appear to prefer trading with dealers. Lastly, we demonstrate that trades on the Dealer market have a transitory price impact that is noticeably greater than that of trading on SETS, showing that liquidity for large trades can be achieved on the Dealer market, albeit at a significant cost.(Jain et al., 2003)

2.1. Hypothesis

Ho: Inflation has no impact on the performance of stock market.
Ho: Exchange rate has no impact on the performance of stock market.
Ho: Balance of trade has no impact on the performance of stock market.

2.2. Critical framework



3. Research Methodology

The purpose of the study is to ascertain how the stock market is affected by macroeconomic factors such as trade, exchange rates, and inflation. We can explain it by using the KSE100 index as the dependent variable and the independent variables of trade, inflation, and currency rates. Inflation, which is a gauge of purchasing power, is the first. It is defined as the rate of change in goods

and service prices over a specified time frame. Put simply, as prices rise and consumers can no longer afford to buy as much, consumer spending declines. The second is the exchange rate, which is the price at which one currency can be exchanged for another. One might speak directly or indirectly about an exchange rate when discussing the two components: the home currency and the foreign currency. A direct quotation expresses the price of a foreign currency unit in terms of the home currency, while an indirect quotation expresses the price of a domestic currency unit in terms of the foreign currency. The final one is trade, which is the exchange of goods and services between individuals. I can go on to say that trade is the act of purchasing, selling, or transferring products or services between individuals, businesses, groups, nations, or organizations. The amount a lender charges a borrower, expressed as a percentage of the principle amount lent, is known as the interest rate.

The annual percentage rate (APR) represents the interest rate on a loan and is calculated annually. The most popular way to gauge economic activity is via GDP. A country's total monetary worth of all finished goods and services produced during a certain period of time is represented by its GDP, or gross domestic product. The KSE-100 index of the Karachi Stock Exchange determines the worth of each of the 100 specific equities that are traded there.

3.1. Research Strategy

In this study we use the deductive reasoning as a current substructure and its attributes are used to identify the relationship between variables. We make conclusions from general premises, similar to deductive reasoning. Three macroeconomic variables—trade, inflation, and exchange rate—are employed in this data set. This study uses the KSE100 stock market index as a dependent variable. As a result, the effect of macroeconomic factors on the stock market is examined, and in order to arrive at particular findings, theories are formed based on general data.

3.2. Data Collection and Sources

The methodology used in this study is quantitative. In order to ascertain the link between variables, secondary data is gathered. In this research, monthly KSE100 index data from past events, ranging from January 2013 to December 2021, is analyzed using time series data. The data which is associated with the market indices for Pakistan can be collected from the websites. The KSE100 index data is collected from this website, https://www.investing.com/indices/karachi-100-historical-data, The inflation rate, exchange rate us dollar, and trade data is collected from this website, https://www.sbp.org.pk/ecodata/ibf_arch.xls, https://www.pbs.gov.pk/trade-summary.

3.3. Data Analysis Tool

The procedure that follows is used to ascertain how macroeconomic factors and the stock market are related. We are time series data using and check the correlation and regression data analysis through SPSS software.

3.4. Model Construction

The independent variable data on inflation rate, exchange rate US dollar, balance of trade and stock prices were collected from 1st January, 2013 to December 31th 2021. The independent variable (KSE100 index). Stock prices were calculated using the KSE100 index points. Additionally, the effect of macroeconomic variables on the stock market is investigated in this study. The empirical model is given as following.

$KSE100\ INDEX = \alpha + \beta^1 (var^1) + \beta^2 (var^2) + \beta^3 (var^3)$

KSE100 INDEX = Karachi stock exchange100 index

α = Constant

$\beta^1 (var^1)$ = Coefficients of inflation rate

$\beta^2 (var^2)$ = Coefficients of Exchange rate US dollar

$\beta^3 (var^3)$ = Coefficients of Balance of trade

The KSE100 index represent the Karachi stock exchange. α indicates the constant. β^1 shows the coefficients of inflation rate. β^2 display the exchange rate US dollar and β^3 represent the balance of trade.

4. Result Analysis

4.1. Descriptive Statistics

Descriptive statistics is a method of describing, patterns of a data set by creating summaries of data samples. It is described as a summary of data explain, the contents of data. The suitable test has been applied to analyze the data and interpret our result. The summary of results is given below.

Table 1 the value of independent variable exchange rate US dollar is not good so we can apply log. The independent variable exchange rate US dollar mean value is -.8394 and median is-.7550 which shows where center of data is located. Minimum value is -4.61 and maximum value is 2.27 so the mean value -.8394 and median value is -.7550 can lies between minimum and maximum value. Skewness -.167 which should be -1 to 1 so it's good and the value of kurtosis is -.872 which is closer to 3 so it's shows data is normal and acceptable.

Table 2 display the results of the model summary. The R value represents the correlation between the dependent and independent variables. For the analysis, a value greater than .4 is used. 0.4 is chosen for further analysis. The value of R in Table 2 is .787 which shows, the value is acceptable and significant. The R square values greater than 0.5 indicate that the model is defected, enough to determine the relationship. The value of R square is .620 which shows, the value is significant and good. The value of R square indicates that 62 percent variation show, in depend variable due to these independent variable is explaining in this model. The R square value .620 shows that there is 62 percent of these independent variable, has impact on the dependent variable KSE100 index and other 38 percent, is impact of other variable. The R square value equal to 0 represent that there is no relationship, between dependent and independent variable.

Table 1: Descriptive Statistics

	Inflation Rate	Exchange Rate US Dollar	Balance of Trade	KSE100 Index
N (Valid)	108	108	108	108
Missing	0	0	0	0
Mean	6.5684	.5751851852	-2357667686	36604.52500
Median	6.0250	.0850000000	-2194292438	37883.58000
Mode	3.20	.0500000000	-4.9762E+9	47896.34000
Std. Deviation	2.89907	2.049455128	802656072.8	8088.700968
Skewness	.370	1.251	-.679	-.469
Std. Error of Skewness	.233	.233	.233	.233
Kurtosis	-.546	5.671	.935	-.469
Std. Error of Kurtosis	.461	.461	.461	.461
Minimum	1.32	-6.56000000	-4976168681	17242.74000
Maximum	14.60	9.650000000	-202606399	50591.57000

Table 2: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787	.620	.603	5532.634506

a. Predictors :(constant), exchange rate US dollar, balance of trade, inflation rate.

Table 3: Coefficient

MODEL		Unstandardized Coefficients		Standardized Coefficients Beta		
		B	Std. Error		t	Sig.
1	(Constant)	20527.614	2625.694		7.818	.001
	Inflation rate	-761.804	290.261	-.228	-2.625	.011
	Lexusdollar	-463.273	441.670	-.090	-1.049	.298
	Balance of trade	-8.190E-6	.000	-.826	-10.436	.001

a. Dependent Variable: kse100 index

4.2. ANOVA Analysis

Table 4: ANOVA

Model		Sum of Square	df	Mean Square	F	Sig.
1	Regression	3341923743	3	1113974581	36.392	.001
	Residual	2050872987	67	30610044.58		
	Total	5392796730	70			

a. Dependent variable: KSE100 Index
b. Predictors: (constant). Balance of trade, exchange rate US dollar, inflation rate

Table 3 displays the Anova results. The P value, which is.001, ought to be lower than 0.05. As a result, the hypothesis is likewise accepted and the result is noteworthy and good. The F value shows how much the variable's prediction improved when the model was fitted, accounting for the model's imperfection. The F value in Table 3 is 36.392, which should be greater than 1. Therefore, the results are significant and acceptable.

4.3. Coefficients Analysis

This table displays the degree of influence the variable has on the dependent variable, as well as the strength of the relationship and the variable's importance in the model. The summary of the coefficients results is given below.

Table 4 shows the Regression test analysis. These are the Null Hypothesis of the observations. Table 4 shows that 1-unit increase in the inflation rate than decrease in the beta value (-.228) and strong negatively correlate on the Karachi stock exchange (KSE100 Index). The significant P value of inflation rate is .011 which should be less than 0.05. Therefore, the inflation rate null hypothesis is accepted. The exchange rate US dollar 1-unit increase than beta value (-.090) decrease and strong negative correlate on the Karachi stock exchange (KSE100 index). The significant P value of exchange rate, us dollar is .298 which should be less than 0.05. Therefore, the exchange rate US dollar, null hypothesis is rejected because the value of exchange rate US, dollar is greater. The balance of trade value one-unit increase than beta value (-.826) decreasing and strong negative correlate impact on the (KSE100 INDEX). The

significant P value of balance of trade is .001 which should be less than 0.05. Therefore, the balance of trade null hypothesis is accepted.

4.4. Correlation Results

Correlation analysis determines if strongly two variables are correlated. By correlation analysis, you may find the correlation coefficient, which shows how much one variable swings when the other one does. Correlation analysis can be used to find the two variables' continuous correlation.

Table 5 shows the correlation test results. Table 5 shows there is negative strong relationship and significant value is -.029 between KSE100 index in inflation rate. The P value is .768 which should be 0.05. This is not significant. There is also a strong negative relationship and significant value is -.003 between KSE100 INDEX and exchange rate US dollar. The P value is .981 which should

Table 5: Correlation

		Inflation rate	Exchange Rate US Dollar	Balance of trade	KSE100 index
Inflation rate	Pearson Correlation	1	.461**	-.069	-.029
	Sig. (2tailed)		.001	.480	.768
	N	108	71	108	108
Lexusdollar	Pearson Correlation	.461**	1	-.232	-.003
	Sig.(2tailed)	.001		.051	.981
	N	71	71	71	71
Balance of Trade	Pearson Correlation	-.069	-.232	1	-.713**
	Sig.(2tailed)	.480	.051		.001
	N	108	71	108	108
KSE100 Index	Pearson Correlation	-.029	-.003	-.713**	1
	Sig.(2tailed)	.768	.981	.001	
	N	108	71	108	108

be 0.05. This is also not significant. Moreover, there is a strong negative relationship and high significant value -.713** between KSE100 index and balance of trade. The P value is .001 which should be 0.05. This is significant.

5. Conclusion

The effect of the US dollar exchange rate, the balance of trade, and the macroeconomic variable inflation rate on stock market performance have all been examined in this article. Does the stock market become affected by macroeconomic variables? is the research question. In this study, a quantitative and deductive approach was adopted. The current study's utilization of secondary data. The analysis makes use of time series data. The most recent nine years' worth of data are gathered; monthly statistics are used from January 2013 to December 2021. In this study, linear regression analysis and Pearson correlation were used. Additionally, the balance of trade has a strong positive significant impact on the stock market. Inflation has a strong positive significant impact on the stock market, while the US dollar exchange rate has a strong negative significant impact. These findings have created a new area of research. This study spans the years 2013 through 2021.Numerous other eras are ours to study. Numerous more macroeconomic factors that significantly affect Pakistan's stock market should be investigated further. The model might be enlarged to account for any potential effects on the stock market from interest rates, GDP (gross domestic product), unemployment, and fiscal policy. The variables under investigation in this article are the inflation rate, the US dollar exchange rate, and the influence of the trade balance on the stock market in Pakistan. We can research the effects of many macroeconomic factors on the stock market, such as the GDP (Gross Domestic Product), interest rate, fiscal policy, unemployment, etc., by looking at other nations.

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