THE EFFECTS OF MACROECONOMIC VARIABLES ON STOCK MARKET PERFORMANCE IN THE NAIROBI SECURITIES EXCHANGE

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF BUSINESS ADMINISTRATION, DEPARTMENT OF FINANCE AND ACCOUNTING, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

DECLARATION

I, Gachuhi Victor Macharia reassert that this project of research has been done best to my knowledge and it’s my original work has not been submitted to any learning institution for examination.

Signed…………………… Date……………………..

Gachuhi Victor Macharia D61/81674/2015

This inquire about extend has been submitted for examination with my endorsement as the University Supervisor.

Signed……………………… Date………………………

MARTIN ODIPO

ACKNOWLEDGEMENT

I would like to begin with thanking the All-powerful God for the blessing of life, great wellbeing, his direction, provision and assurance all through my scholarly travel.

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DEDICATION

I commit this venture to my guardians late Richard Gachuhi and Veronicah Gachuhi, who ensured that my education was their priority in their entire life and their love and encouragement.

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ABBREVIATIONS

ARDL- Autoregressive Distributed Lag Model

ASEA- African Securities Exchange Association

CAPM- Capital Asset Pricing Method

CMA- Capital Market Authority

DW- Durbin Watson

EASEA- East Africa Securities Exchange Association

EMH- Efficient Market Hypothesis

GARCH- General Autoregressive Conditional Heteroscedasticity

GDP- Gross domestic product

M-Nominal Quantity of Money

NASI- Nairobi Securities Exchange All Share Index

NSE- Nairobi Securities Exchange

OLS- Ordinary Least Square Model

P- General Price level

Q- Index of the Real Value of Final Expenditure

SGMM- System Generalized Methods of Moments

SPSS- Statistical Package for Social Scientists

V- Velocity of Money in Final Expenditures

VAR- Vector Autoregressive

VIF- Variance Inflation Factor

ABSTRACT

Stock market execution is measured by stock showcase file which may be marker of the course of share cost development. It may be a speedy degree for judging the generally heading of the market and is considered to be an exact pointer of changes within the stocks market. The think about looked for to look at the impacts of macroeconomic factors on stock showcase execution at NSE measured by the share costs. The selected macroeconomic variables were Inflation Rate, Gross Domestic Product, Interest Rates and USD Foreign Exchange Rate. This consider utilized quarterly information on a time series of 2007 to December 2017. The subordinate variable utilized in this think about was NSE 20 share file utilized as an intermediary for the share cost. Information utilized in this ponder was auxiliary and was collected from different sources I.e. Data on Swelling rate and Intrigued rate were gotten from the Central Bank of Kenya reports, net household item, USD trade rate was gotten from Kenya National Bureau of Measurements, and NSE 20 share record was gotten both from Nairobi securities Trade websites and KNBS. This study used multiple regression analysis to analyze data in SPSS software. The results from the analysis expressed a variation of 55.8% in the share prices which was explained by the four macroeconomic variables. This meant that the difference variation of 44.2% in the share price was brought about by other macroeconomic elements which were to taken into consideration by the study. The study concluded that GDP and Intrigued Rate had a wonderful impact on share prices, FER and IR had a terrible impact on share cost and hence an influence on inventory market performance. The study concluded that the chosen macroeconomic elements represented a moderate response on share prices listed at the NSE. Finally Inflation rate had the highest negative unit of -51.807 in share prices.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Growth of the Kenyan economy is highly determined by the growth of the inventory showcase. Inventory showcase is a place where investors, whether citizens or foreigners, can invest or take the funds for capital appreciation. The indicators of the general trend in the economy are the stock indexes, which are maintained by the stock exchange. Stock exchange regulates the stock price fluctuations**,** raises government capital for development projects such as the Euro Bond issued by the Kenyan government (2014) in order to fund its budget deficit**,** creates investment opportunities for small investors, and mobilizing savings for investments. At the stock trade, offers rise and drop subject to advertise powers (financial, political etc.). When a specific economy appears signs of solidness share costs tend to rise or stay steady. Hence, the generic trend in a given state is indicated by the evolution of share prices.

Macroeconomics is an analysis of the nation’s economy as a whole. Brinson (1991), it analyzes the recurrent movements and trends that exist in an economy. e.g. Inflation, Gross Domestic Production, Foreign exchange rate, Budget Deficits, International Trade, and Exchange Rate only to mention but a few.

The major variables to be discussed in this research will be the inflation rate, gross domestic product, and the interest rates. These variables are identified as critical in determining the behavior of the stock market. They are used to describe the macro-economy state. Investors both local and foreign must closely screen these variables to forecast future investments trends and make correct or accurate investments decisions to avoid future loses.

The mean of the price weighted indicia of the 20 best-performing companies is referred to as the NSE 20 share index. Based on the following various essential principles companies are selected mainly due to a weighted market performance amid the period under consideration: a minimum of twenty percent of company’s shares must be cited at the NSE, measurement of the exchange activities, Capitalization in the market, traded shares, a ratio of 4.3.2.1 must be maintained of turnover and liquidity during this period, a company should have at least Ksh. twenty millions of market capitalization and finally a company should have shares that result to high returns in favorable market conditions and shares capable to put up with tough market conditions.

No doubt, a relationship exists between stock showcase advancement and development of the economy and stock costs are by and large accepted to be decided by a few essential macroeconomic factors such as loaning rate, swelling, cash supply and trade rate. Experimental confirmations have appeared that variations in inventory costs appear to be connected alongside macroeconomic conduct in progressed nations (Zafar et al. 2008). Ross (1976) utilized measurable apparatuses like calculate examination within the Arbitrage Pricing Theory (APT) which was a substitute of capital asset pricing show (CAPM) and so started the utilize of factors without the required of pre determination of factors in assurance of stock returns. But it did not take as well long some time recently the reactions begun to seem. One major feedback was that APT seems not to indicate the components, but just determine them factually. This insufficiency of the Well-suited was acknowledged indeed within the to begin with experimental Well-suited consider done by Roll and Rose in 1980.

1.1.1 Macroeconomic variables

Macroeconomics is the analysis of the nation's economy as a whole. The major variables to be discussed in this research will be the inflation rate, gross domestic product, and the interest rates. These variables are identified as critical in determining the behavior of the stock market. They are used to describe the macro-economy state. Investors both local and foreign must closely screen these variables to forecast future investments trends and make correct or accurate investments decisions to avoid future loses.

Inflation can be described as the decline in the purchasing power of currency in a particular economy with the general prices of commodities increasing over a particular time series. Inflation is calculated by the percentage shift in price indicia, which is the standard price for a set of commodities, relative to a base year. (Romer, 2009).

Consumer price index (CPI) is the most frequently used method for determining inflation. Ability of an economy to purchase its products in an economic entity is lessened by an increase in price level of commodities. Subject to who gains from the price increment inflation causes income and wealth re-apportion (Romer, 2009). Moreover, in the macroeconomic stage, inflation creates unsureness in the economy, deviates resources from production as firms and consumers spend more time and resources trying to prevent inflation and manipulate long-time planning and commitments (Totonchi, 2011).

High inflation once related to hyperbolic worth variability will cause uncertainty regarding the longer term gain of investments comes, resulting in lower levels of economic process and investments. Inflation may additionally scale back a country’s international fight by creating its exports comparatively dearer so impacting the balance of payments. Moreover, inflation will cause construe of loaning and borrowing choices after they move with the legal system. Organizations are also forced to inject a lot of resources therefore on subsume effects of inflation. E.g. be a lot of cautious once watching their competitors’ costs to notice if associate degree will increase area unit a part of an inflationary trend within the economy or because of non-monetary problems e.g. natural calamities.

Lending and borrowing square measure directly plagued by interest rates. With higher interest rates mating loans becomes additional expensive. Once interest rates drop, shopper outlay will increase and this reciprocally enhances economic process. This growth will cause conjointly inflation. The main work of the central bank is to keep growth at check since excessive economic growth can be quite harmful.

In most cases, many companies fund their capital investments through borrowed money. Hence a decline in interest rates will provide a conducive environment for business. Due to the reduced interest rates, the firm's’ future returns are guaranteed and therefore investors will expect improved dividends. If they invested in such a firm, this will result in increased demand for the stock and the stock prices are expected to rise. This may also cause an inverse relationship if the rate of interest goes up.

Gross Domestic Product (GDP) could be a financial live of the market price of all the ultimate merchandise created by all individuals corporation and firms within the country and it doesn’t matter if they're non-citizens or voters in hand companies as long as they're placed at intervals the country's boundaries, the govt. counts their production as GDP. Economic performance of an entire country or region is set by the nominal GDP estimates thus on build international comparisons.

Kenya's vision 2030 laid down macroeconomic frameworks aimed at fostering economic growth. The vision 2030 also laid out monetary policies to be followed by the CBK with an overriding aim of maintaining inflation rates as low as 5% and accelerating GDP growth to a high of 10% annually. These policies would also help to reduce poverty and create employment (the Republic of Kenya, 2007). However, this target has been far from reached given the ratio was 4.9% at the end of 2017. However, this was attributed to the prolonged electioneering period.

Levine and Zervos (1996) considered whether or not there's a solid observational affiliation between securities showcase progression and long run improvement for 41 countries by using data from 1976 to 1993 on real per capita file and average development. The outcomes of cross-country development regression advocate that a pre-condition of securities market advancement is positively and effectively related to long-run financial development. Mun et al. 2008) assessed the causative interconnection amidst the securities advertise and financial activity in Malaysia between 1977 and 2006. This ponder utilized yearly information on the genuine net family thing (GDP) and the Kuala Lumpur Composite Record (KLCI), the conclusion comes about of the Granger causality check appeared that the association from the securities market to the economic movement and not the inverse Pearce (1983) study demonstrated that the inventory prices might lead on the course of the economy. This study was dispensed out for the time span of 1956 to 1983 for the U.S. Associate and unconcealed that securities market performance is as an indicator of economic process.

Cash supply is sketched out as the whole stock of currency and distinctive fluid rebellious streaming in a country's nation as of a specific time. Cash offer will epitomize cash control in hand, and equalizations control in checking and reserve funds accounts. By decreasing or increasing the quantity of cash flowing into the economy and interest rates economic expert analyze monetary resource and develop policies to guide them.

The general level of costs in associate degree economy changes to bring monetary resource and cash demand into equilibrium. Once the financial institution will increase the availability of cash it causes the value level to rise in different words, the inflation will increase.

Ben Bernanke and Kenneth Kuttner (2005) examined the cost of an inventory could be a part of its monetary esteem and the supposed risk in holding the inventory. In case the monetary value it bears is high a stock is referred as attractive. Besides, a stock is not attractive if the supposed risk is high. They contended that the money supply influences the stock showcase through its affect on both the money related esteem and the gathered chance. They acknowledged that settling the escape clauses cash supply raises the intrigued rate. An increment in interest rate would result in the rise of the markdown/discount rate, which would diminish the value of the stock as kept up by the real activity theorists.

1.1.2 Stock market performance

Stock showcase execution is measured by stock advertise list which may be a marker of the course of share taken a toll advancement. It may be a speedy degree for judging the generally heading of the market and is considered to be an exact pointer of changes within the stocks market. This implies that a stock market index ought to not one or the other downplay nor exaggerate the market position and ought to be both exact and correct. The market index comprises of a determination of recorded companies which represent to a critical portion of market capitalization and exchange effectively. The three primary lists at the NSE are the Nairobi Stock Trade (NSE) 20 List, NSE All Share File (NASI) and the American Universal Gather (AIG) record (Kibuthu, 2005).

1.1.3 Macroeconomic Variables and Stock Market Performance

Theory and exploratory overview holds that the change of a nation is especially related to the economy, which comprises of unmistakable factors like GDP, swelling rate, Charmed rate and cash supply and a couple of others (Aduda, Masila and Onsongo, 2012

In studying the determinants of stock showcase execution, this paper will fundamentally consider GDP, swelling rate, Intrigued rate and outside trade. Expansion and cash supply have positive relationship among themselves. Be that as it may, inflation and money supply have a double impact on stock returns. Hypothesis holds that an increment in money supply will result to an increase in inflation, which is seen to extend anticipated rate of return. Too, increment in money supply and inflation leads to increments on future cash stream of the firm, which in turn, increments anticipated profit, and will increase stock costs. Deterioration of the household cash against remote monetary forms increments export.

Rachel did example of a local case study in Kenya and Moses (2017) to determine the performance of NSE after the Kenya government introduced the capping of the interest rates on borrowing by the commercial banks. This was as a result of high interest rates rising up to 11.5%. The researcher collected data for six years i.e. 2012 to 2017. The study used event study methodology to analyze data and the final findings expressed that the capping of interest rates had negative effect on stock market performance.

1.1.4 Nairobi Securities Exchange limited

In sub-Saharan Africa, Kenya is among the fastest growing economies. NSE has been in existence for the last six-decade and is among the most influential securities exchanges in Africa. It provides a world-class trading amenity for both local and international investors considering acquiring knowledge to Kenyan and other African economic growth.

Kenyan economic growth is influenced by the NSE through urging of saving of the people and investment. NSE also helps residents and Non-residents Company's obtain cost-effective funds. Under the jurisdiction of the Capital Markets Authority is where the NSE operates. NSE could be an author relate of the East Africa securities exchanges association (EASEA), African securities exchanges association (ASEA) and it's a full associate of the world federation of exchange. The NSE is a member of the Association of Futures Market and is a partner exchange in the United Nations-led SSE initiative.

NSE is categorized as an emerging market in the world since Kenya is among the developing countries. The Nairobi Securities Exchange 20-Share index was 3,186 points in December 2016 which rose to 3712 points in December 2017, with market capitalization rising to KSh. 2,522 billion in December 2017.

Because of the state of the economy in Kenya today, the Central Bank of Kenya (CBK) has been rolling out different monetary policies to ensure that Kenya comes out of recession through manipulation of the monetary policy rate. The policy drives other interest rates in the economy and it has continuously intervened from time to time in foreign exchange supply to reduce the exchange rate.

Further, the CBK implemented the amendments made on the Banking Act with regards to the capping of interest rates which came into effect on September 14, 2016. This made the performance of the NSE to degrade. NSE was further affected by Kenya's general election that was held in August 2017. Investors did not want to take the risk since there were uncertainties about the election outcome including fear of post-election violence as previously witnessed in 2008.

1.2 Research Problem

The effects of macroeconomic components that influences the stock showcase is the Net household item, remote trade rate, intrigued rates, and swelling. There have been numerous thinks about done to this impact and the distinctive analysts make changing conclusions. The observational audit considered in this venture appears that the interface between macroeconomic components and thus the stock advertise execution may be either negative or positive due to the unmistakable nature of each study.

Towards the end of the year 2011, Kenyan economy experienced the very unpredictable movement of macroeconomic variables like high rates of inflation went up to 13.97%. These unfavorable conditions made the foreign currency rates to be volatile. Importers were losing funds on imports since the foreign currency rates were not favorable. Farmers and exporters were recipients of the same conditions. Central bank of Kenya was forced to rise base lending rates so as to neutralize the Kenyan currency that had performed poorly as compared to the major world currencies.

Further, in 2015 there were high interest rates up to 11.5%. This enabled the CBK to draft amendments on the Banking Act {The Banking (Amendment) Act, 2015} with regards to the capping of interest rates. The amendments came into effect on September 14, 2016. As a result, the performance of the NSE dropped. NSE was further affected by the Kenya general election that was held in August 2017. The investor did not want to invest since there were uncertainties about the election outcome. There was fear of post-election violence like in 2008. The study is thus determined to establish the resultant link between these specified factors within the economy.

Kenya's vision 2030 laid down macroeconomic frameworks aimed at fostering economic growth. Vision 2030 also laid out monetary policies to be followed by the CBK with an overriding aim of maintaining inflation rates as low as 5% and accelerating GDP growth to a high of 10% annually. These policies would also help to keep health stock market prices, reduce poverty, and create employment. (The Republic of Kenya, 2007). Therefore, in order to meet vision 2030 targets, inflation and interest rates should be reduced to deal with depressed economic growth experienced over the years. Despite Kenya intensively reforming its monetary policies aimed at achieving stable prices and an enabling environment for economic growth, inflation rate and interest rates have remained high.

Mutuku and Ng'eng (2015) examined the affiliation of four financial factors with the execution of offers costs at the NSE and concluded that Treasury bond rate, GDP and trade rate had a favorable relationship with the share costs at the NSE.
Masila (2010) carried out a study to set up the determinants of stock showcase improvement at NSE. In her case study, the analyst considered macroeconomic steadiness in common without taking an in profundity study on different macroeconomic factors. The outcomes of the past studies have too changed concurring to the macroeconomic variables utilized, the investigate strategy utilized and the nations inspected.

The modifications in inventory costs and the tendencies of modifications are constantly of pastime inside the capital showcase given their have an impact on the inventory market soundness and techniques embraced via speculators (Wang, 2010). According to this study it attempts to give a clear understanding of the below question: Is there an effect of macroeconomic variables on Nairobi securities exchange 20 share index for 11 years 2007 to 2017?

1.3 Research Objectives

1.3.1 General Objective

The intent of the study is to evaluate the effects of macroeconomic factors on stock market advancement in Kenya.

1.3.2 Specific Objectives

(i) To assess how inflation rate affects the NSE 20share index in Kenya.

(ii) To assess how GDP affects the NSE 20share index in Kenya

(iii) To assess how interest rates affects the NSE 20share index in Kenya

(iv) To assess how foreign exchange affects the NSE 20share index in Kenya

1.4 Value of the Study

My examination is meant to improve the understanding of the effects of macroeconomic factors on the NSE 20 share index in Kenya and the following parties may find it important in their decision-making:

The national policymakers especially the government will benefit from the study since it explains the descriptive variables in the movement of stock prices and develop tools to strengthen the stability of the inventory market.

The citizens of the country and foreign investors to understand the economic fundamentals which will guide them in forecasting future trends in the market so as to invest in shares that will yield positive returns.

Researchers and scholars who are interested in the affairs of Kenya and are keen on increasing knowledge, donors and other partners interested in the investment environment in Kenya.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will investigate the hypothetical and experimental interconnection that exists amidst macroeconomic factors and stock showcase. Different hypothetical contentions will be analyzed in this chapter that gives linkages amidst macroeconomic factors and stock showcase. This chapter will too return to the systems clarifying the forms through which the stock advertise leads to financial development and improvement.

2.2 Theoretical literature

Numerous literature on arguments in favor of macroeconomic variables as an important determinant of the stock index has been considered. The following theories will be discussed in this chapter: Monetary theory of inflation, Capital resource estimating show, Arbitrage estimating hypothesis and productive showcase theory. The above theories will help the research in explaining the how the macroeconomic factors affects the economic growth of a particular economy

2.2.1 Monetary Theory of Inflation

Agreeing to monetarist, the foremost noteworthy components impacting swelling is how quick cash supply increase or decreases within the economy. Moreover, the monetarist considers government spending, fiscal policy and taxation as ineffective in controlling inflation in an economy.

Monetarist focuses out that the observational think about of budgetary records proposes that swelling was continuously a financial occasion. The concept of amount of cash genuinely states that any alter within the sum of cash in an economy will alter the cost level. The speculation starts with the change condition.

$MV=PQ$ in which: M is the negligible amount of cash, V is the fastness of cash, P is the, generally expense level and Q is an file of the genuine cost of exceptionally final costs.

In the above components, the overall fee level is associated with the extent of real financial interest (Q), cash (M) and cash speed (V). The system is an identity because the rate of money (V) rises to the ratio of the very last nominal expenditure (PQ) to the amount of money (M).

Monetarist accept that cash speed isn't influenced by monetary policy, i.e. Within the long term, the real fetched of yield is eventually determined by the money related system's productive potential. Within the over presumptions, changes within the amount of cash within the economy are the primary driving force of trade in the general rate phase. With exogenous speed, money supply executes the fetched of ostensible yield (which compares to final fetched) within the brief run. In hone, speed isn't exogenous inside the quick run, and the components don't continuously cruel that there can be a stable brief - run relationship between cash and ostensible yield. Indeed in spite of the fact that, within the long run, alterations in pace are accepted to be decided by way of the advancement of the bills component organizations through the government. In conclusion, the theory indicates that ultimately, fees are mainly stricken by the boom rate in cash, whilst having no actual impact on growth. Inflation will result if the money delivered is higher than monetary increase

2.2.2. Capital asset pricing model

CAPM may be focused for a hypothetical plan to concretely measure those hazard connected with a certain level about profit as stated by the singular utility work. That CAPM tries to respond to the inquiries that turned from Markowitz’s mean-variance approach.

The model hypothesis concerns the behavior of the individual and that of the market: forecast is formulated at the beginning of the period and the investment period is unique, the investor is risk averse and want to maximize their final wealth, there are no transaction cost or taxes, the assets are perfectly divisible, the only parameters that familiarize the portfolio choice are the standard deviation and the expected return: projections of the investor are uniform and all securities are flexible therefore each of the investors has similar understanding concerning the variance and expected return: the cost-effective boundary and equal to all investors.

This association illustrates that the anticipated trade related with a specific security illustrates a direct interface with that existing co-variance between this return and the showcase portfolio return.

In order to explain a given common stock return, CAPM uses just one factor i.e. stock market index. The model assumes that the return of an asset is only affected by two risky the non-systematic risks and systematic risks. However, a non-systematic risk is unique to a specific asset and it can be diversified by holding portfolio's along the efficient frontier and systematic risk is inherent in holding a market portfolio that is affected by market moves.

CAPM model has strict assumptions and it has been criticized in many studies that raised important issues. This has led to theories like Arbitrage pricing model.

2.2.3 Arbitrage Pricing Theory

APT assumes that a market may, misprice securities at times before the market inevitably rectifies and securities move back to reasonable value though CAPM expected that markets are perfectly proficient. When utilizing APT, arbitrageur's desires is to require advantage of any deviations from fair market esteem. But, usually this is not a risk-free operation of arbitrage, since financial specialists are assuming that the demonstrate is redress and making directional exchanges instead of locking in risk-free profits. There a few studies that exist that look at the interconnection that exist amidst stock market returns and a few macroeconomic components. A brief run relationship between macroeconomic elements and the inventory cost are a few of the characteristic based by experimental works done utilizing APT hypothesis (Fama, 1981 and Fama and French, 1989).

2.2.4 The efficient market hypothesis

The idea suggests that contemporary inventory prices absolutely mirror available information almost the worth of the firm, and there's no manner that can be utilized to win abundance benefits, by utilizing this data. It has exceptionally critical impacts for financial specialists and for monetary supervisors.

E.F. began the productive market in a paper in 1965. Fama prescribed that in an efficient market, competition in the ordinary, the overall impacts of new information on inborn values to be reflected " promptly " in actual costs will be reviewed. EMH proposes that it is particularly difficult to benefit from the anticipated cost developments. Foremost instrument behind price changes is the presence of new information. A market is said to be “resourceful” within the occasion that costs change quickly and, on average, without inclination, to fresh information.

A key reason for the nearness of an effective market is the strongly competition among financial specialists to benefit from any modern data. It’s profitable to recognize underpriced or overrated stocks. Subsequently, numerous individuals spend a vital sum of time and assets in an exertion to recognize "mispriced" shares. In balance, as it were a generally little number of investigators will be able to benefit from the discovery of mispriced securities, for the most part by chance. The data examination payoff would likely not eclipse the exchange costs for the tremendous lion's share of speculators.

The suggestion of the EMH can be put within the shape of a trademark: ‘Trust market prices’. Costs of securities inefficient markets reflect all known data accessible to financial specialists at any point in time. There's no room for deluding speculators, and as a result, all ventures in productive markets are similarly estimated, i.e. on normal speculators get absolutely what they pay for. The sensible assessing of all securities does not on a very basic level brutal that they will all do so too, or that in fact the likelihood of rising or falling in fetched is the same for all securities.

Capital markets hypothesis, recommend that the anticipated return from a security is basically a work of its chance. The cost of the security copies the show esteem of its anticipated future cash streams, which joins numerous factors. The effective advertise speculation gives three forms:

Weak form suggests that all past market costs are as of now taken under consideration within the cost of a stock. Financial specialists can't estimate where a stock is moving by taking after past cost designs through specialized analysis.

Semi-strong form proposes that all promptly accessible data is as of now completely reflected by the stock cost.

Strong form proposes that all data is completely reflected within the stock cost.

This hypothesis of the efficient market hypothesis is pertinence to my study in that Fama (1970) portray a market as efficient in the event that costs continuously completely reflect all accessible data. A segment of the freely accessible data would be alter within the financial essentials counting; expansion, intrigued rates, foreign exchange and GDP.

2.3 Determinants of Stock Market Performance

Maghayereh (2002), and Osisanwa and Atanda (2012) established that the main stock prices determinants are as follows:" GDP, inflation rate, intrigued rates and USD foreign exchange". These variables should be closely monitored so as the investors can get the best returns from putting their money in the stock market.

2.3.1 Inflation rate

Inflation can be described as the decline in the purchasing power of currency in a particular economy with the general prices of commodities increasing over a particular time series. Inflation is calculated by the percentage shift in price indicia, which is the standard price for a set of commodities, relative to a base year. (Romer, 2009).

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2.3.2 Gross Domestic Product

It could be a financial live of the market price of all the ultimate merchandise created by all individuals corporation and firms within the country and it doesn't matter if they're non-citizens or voters in hand companies as long as they're placed at intervals the country's boundaries, the govt. counts their production as GDP. Economic performance of an entire country or region is set by the nominal GDP estimates thus on build international comparisons.

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2.3.3 Foreign Exchange rate (USD)

Cash offer will epitomize cash control in hand, and equalizations control in checking and investment funds accounts. By decreasing or increasing the quantity of cash flowing into the economy and interest rates economic expert analyze monetary resource and develop policies to guide them.

The general level of costs in associate degree economy changes to bring monetary resource and cash demand into equilibrium. Once the financial institution will increase the availability of cash, it causes the value level to rise in different words, the inflation will increase.

2.3.4 Interest rates

Lending and borrowing square measure directly plagued by interest rates. With higher interest rates mating loans becomes additional expensive. Once interest rates drop, shopper outlay will increase and this reciprocally enhances economic process. This growth will cause conjointly inflation. The main work of the central bank is to keep growth at check since excessive economic growth can be quite harmful.

2.4 Empirical Literature Review

Several studies have examined the interconnection between macroeconomic components on stock market shares index. This research contains mainly local literature review done by Olweny and Kimani (2011) and several international reviews which contains the author, objectives, data and estimation techniques and findings. The literatures review will help in explaining the interconnection between the macroeconomic variables that affect the stock market and hinders economic growth.

Badawi (2004) considered the impact of macroeconomic approaches on private speculations in Sudan utilizing yearly information from 1969-1998. This study focused mainly on public investment, credit, devaluation and interest rate policies. This consider utilized co-integration, Vector autoregressive (VAR) and error correction methods to set up the short-run and long-run connections between these factors. The study results suggested significant crowding out effect of public investments on private investments in Sudan. It concluded that devaluation discourages private investors from expanding their capital base. Also the study stated that monetary policies relating to credit such as interest rates also impact negatively on private investments.

Chen et al (1986) inspected the connections between a few macroeconomic factors and stock costs, the study found out that utilization, oil costs, and market file have no relationship with stock costs. The ponder, be that as it may, found critical connections between stock costs and expansion, mechanical generation, net household item, and cash supply. Gjerde and Frode (1999) reviewed the interconnection amidst macroeconomic components and inventory returns in Norway. This study clarified that there exists a wonderful interconnection amidst oil costs, GDP and inventory returns. This consider did not appear any imperative interconnection amidst advancement and inventory returns.

In spite of the fact that, bidirectional causality existed between stock cost and remote trade save, money supply, unrefined oil cost as well as the total cost list. This study built up a negative impact on stock costs and gold costs, whereas the adjust of exchange, intrigued rate, outside trade save, net residential item, mechanical generation record and cash supply were found to emphatically impact the Indian stock costs.

Ahmed (2008) considered the interconnection amidst total financial factors and stock markets in India and found out a wonderful interconnection amidst intrigued rate and inventory costs on the Indian stock market. Zafar et al. (2008) examined the impact of intrigued rates on stock returns and instability on the Karachi stock trade in Pakistan. This study utilized GARCH models to set up the relationship. The examination utilized a timeline between January 2002 and June 2006. The studies result were that there exists a negative critical interconnection amidst intrigued rates and inventory showcase returns.

Furceri & Sousa (2009), Christensen (2005) and Easterly & Re-belo (1993) utilized time arrangement information to analyze contrasts in financial development between created and creating nations. In their studies, they used co-integration and vector autoregressive models. Christensen concluded that there exists significant crowding out effect evidence in developing countries.

Coleman and Tettey (2008) considered the effects of macroeconomic factors on the Ghana Stock Trade. The study utilized quarterly information for the period 1991 to 2005. They set up that market loaning rates from store money banks have the unfavorable impact on stock showcase execution. The study too found out that expansion is adversely related to stock advertise execution and this impact takes time since of the nearness of a slack period.

2.5 Conceptual framework

The study adopted a conceptual system to re-examine the interconnection amidst macroeconomic variables in Kenya. The study utilized the following independent variables as a measure of share index: intrigued rates, inflation, Foreign Exchange rate and gross domestic product and the subordinate variable as the stock index in Kenya.

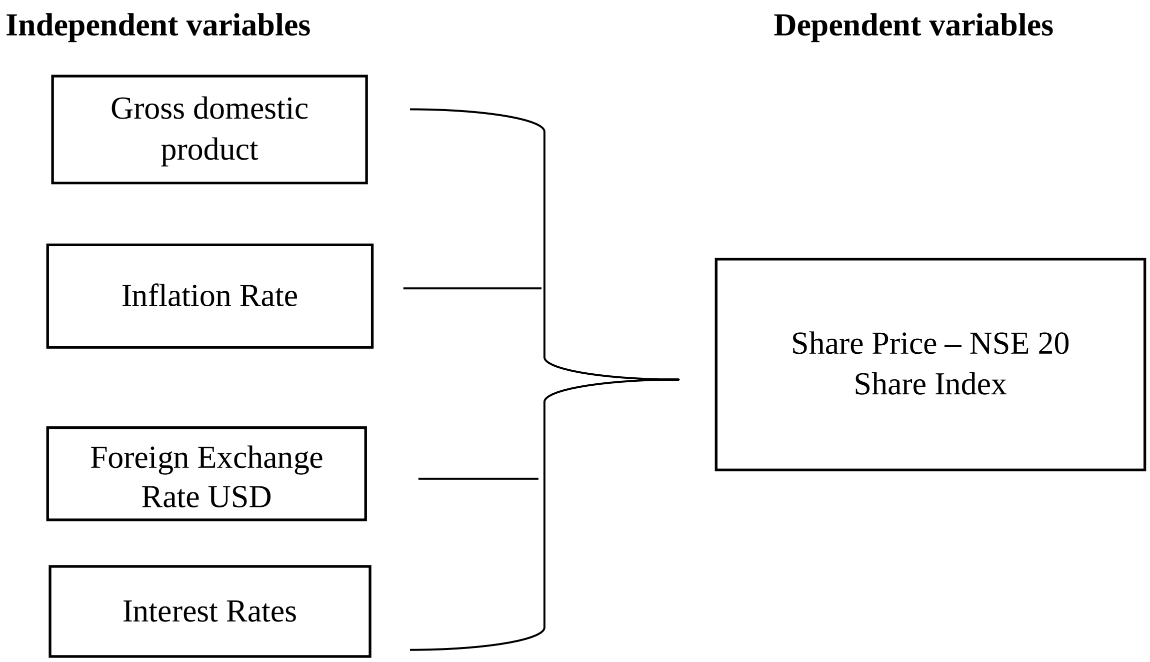


Figure 1 Conceptual framework model

2.6 Research Gap

There have been many studies done on this effect and the different researchers conclude differently. The empirical review studied in this project shows that the interconnection amidst macroeconomic factors and the inventory showcase performance can be either negative or positive; this is due to the distinctiveness of each study.

This consider will look for to look at the relationship that exists between macroeconomic factors and stock showcase execution.

2.7 Summary

In conclusion, the hypothesis prescribes that within the long-run, costs are basically influenced by the development rate in money, whereas having no genuine impact on growth. If the development within the money supply is higher than the financial development rate, inflation will occur.

From the literature review of the macroeconomic factors that affect the stock market: Gross domestic product, Foreign Exchange rate, interest rates and inflation. There have been many studies done on this effect and the different researchers conclude differently.

The empirical review studied in this project shows that the interconnection amidst macroeconomic factors and the stock market performance can be either negative or positive. Therefore, this suggest that there should be more studies conducted in order to bridge this gap and provide adequate solutions to the national policy makers especially the government will benefit from the studies since they explain the descriptive variables in the movement of stock prices and develop tools to strengthen the stability of stock market and also citizens of the country and foreign investors to understand the economic fundamentals which will guide them in forecasting future trends in the market so as to invest in shares that will yield positively.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

According to this chapter it will sets out unmistakable stages and stages which can be watched within the whole think about. It contains a format for the aggregation, estimation, and examination of data. This part portion an by and large arrange or structure considered to help the consider in reacting to the raised ask around inquire about address. This region I recognize the procedures and strategies that will be utilized interior the collection, taking care of and examination of information. Accurately the taking after subsections are included; investigate plan, populace, data collection methods, information collection techniques and at final information/data examination.

3.2 Research Design

Clear inquire about plan will be utilized for this inquire about issue. Cooper and Schindler (2003), implied to a graphic consider as a ponder is concerned with finding out the what, where and how of an event. A graphic investigate plan may be a plan that's utilized when the investigate needs to depict the specific behavior since it happens inside the environment (Greener, 2008). The point of this consider is to choose and report the affect of macroeconomic factors, in case any, on the on NSE 20 share list in Kenya.

3.4 Data Collection

Based on the nature of the ponder, auxiliary information will be collected for the factors distinguished. Key sources of information will be the Central bank of Kenya reports will allow data on the swelling rate and intrigued rates, Nairobi securities exchange will give information on stock index Government of Kenya publications and Kenya National Bureau of statistics publications will give information on Foreign Exchange rate and gross domestic product. The study time series will be from 2007 to 2017.

3.5 Data Analysis

Information collected will be simply quantitative and it will be analyzed by graphic examination procedures. The clear measurable devices such as SPSS makes a difference the analyst to portray the information and decide the degree utilized. The findings will be displayed in utilizing tables and charts, rates, organizations, implies, and other central inclinations.

In this study, I will be interested in measuring the relationship between macroeconomic variables and the stock share index.

3.6 Model Specification

To look at the relationship of macroeconomic on stock share index, the study utilized the conventional ordinary least squares model (OLS). $y = a + x' t_b + e_i$

Beneath this approach, it'll be considered that the OLS's primary presumption is that errors must be uncorrelated.

Brooks, (2008), expressed the econometric model as follows;

Model Specification.

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mathcal{E}$

Where: Y is the dependent variable (Share price as measured by the NSE 20 share index)

α= Constant Term;

$\beta 1$, $\beta 2$, $\beta 3$ and $\beta 4$ = Beta coefficients;

X_1 (Gross domestic product), X_2 (interest rates), X_3 Inflation rate X_4 (foreign exchange rate USD) are the independent variables and $\mathcal{E}$= Error term. The above variables will be measured quarterly.

Where Y denotes Share price as the dependent variable, GDP denotes gross domestic product, IR denotes the interest rates, IFR denotes inflation rate, FER as Foreign Exchange rate and ε denotes an error term.

3.7 Estimation Techniques

3.7.1 Autocorrelation Test

Autocorrelation alludes to the case in which the error term in one time period is related with the error term in any other time.

Classical linear regression accept that such relationship does not hold. As a result of a vital imperative of Durbin-Watson (DW) measurement, that it gets to be unenforceable when connected to a regression condition which incorporates a slacked subordinate variable among its regresses and cannot test for higher arrange autocorrelation, the Breusch-Godfrey (LM) test will be utilized.

3.7.2 Multicollinearity Test

Multicollinearity alludes to an occurrence in which two or more illustrative factors within the relapse demonstrate are profoundly connected making it challenging to confine their person impacts on the subordinate variable. Detection was by Variance Inflation Factor (VIF). Gujarati (2004) examines that the rule of the thumb is that in the event that Variance Inflation Factor (VIF) surpasses 10, that variable is accepted to be profoundly collinear.

3.7.3 Heteroscedasticity Test

Heteroscedasticity happens when the fluctuation of the error term isn't diligent. This study will utilize White's, General Heteroscedasticity Test. Gujarati (2004) states that the common test of heteroscedasticity proposed by White does not depend on the ordinariness suspicion and is simple to implement.

3.7.4 Causality Test

Co-integration gives a signal that there's a plausibility of causality but does not appear heading of causality. This study will consider the Granger Causality test since according to Gujaratti (2004), the test could be a valuable clear instrument for time arrangement data.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the comes about from the investigation performed on the information and conclusions of the ponder carried out to decide whether macroeconomic factors are critical in clarifying stock advertise execution through the changes in share costs of firms recorded within the Nairobi Securities Trade. Information on Swelling rate and Intrigued rate were gotten from the Central Bank of Kenya reports, net household item, USD trade rate was gotten from Kenya National Bureau of Insights, and NSE 20 share record was gotten both from Nairobi securities Trade websites and KNBS. Graphic insights, relationship, relapse examination and linearity were utilized within the think about to analyze information.

4.2 Descriptive Statistics

Mean and SD for the dependent variable and autonomous variables were computed using the descriptive statistic in this study.

Table 4.1 Descriptive Statistics

Descriptive Statistics

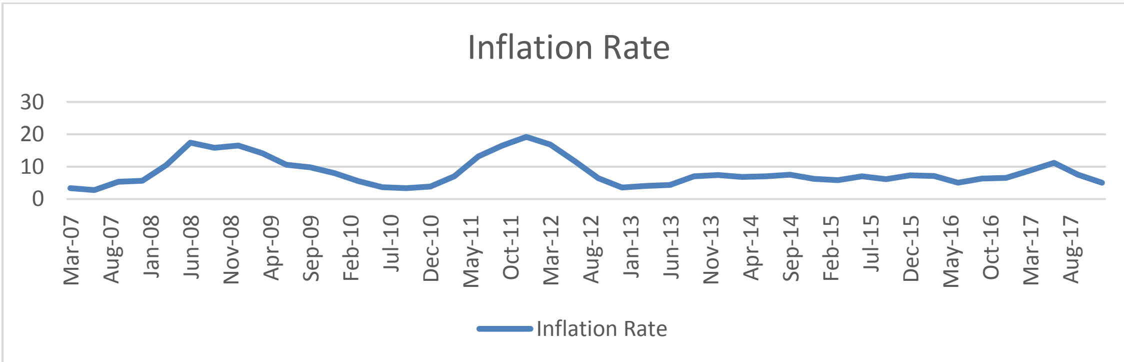
	N	Min.	Max.	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Stats.	Stats.	Stats.	Std. Error	Stats.	Stats.	Std. Error	Stats.	Std. Error
Inflation Rate	44	2.71	19.19	8.2905	.65909	4.37190	1.051	.357	.127	.702
GDP	44	.20	12.40	5.3409	.33696	2.23516	.118	.357	1.706	.702
Interest Rate	44	5.83	18.00	9.2798	.43727	2.90055	1.480	.357	2.513	.702
FER USD	44	62.95	103.64	85.1577	1.71996	11.40892	-.013	.357	-.614	.702
NSE 20 Share Index	44	2805.03	5444.83	4162.8868	112.54998	746.57214	-.003	.357	-1.272	.702
Valid N (listwise)	44									

a. dependent variable : NSE 20 share index

b. independent variable: inflation rate, GDP, interest rate and FER USD

According to this computed descriptive statistic above GDP, FER and NSE 20 share index are approximately symmetrically skewed meaning that this variables are normally distributed. This is because of the standard of the thumb, which expresses that on the off chance that skewness is between - 0.5 and 0.5, the dissemination is said to be around symmetrical.

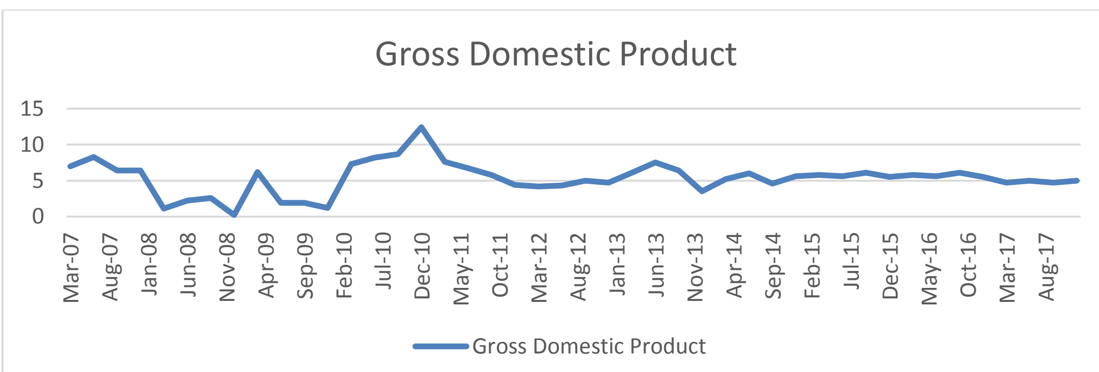
Figure 2. This a line graph showing Inflation Rate from March 2007 to December 2017



Source: Central Bank of Kenya

Inflation rate in the study had a mean rate of 8.29% and a SD of 4.37%. In this study period, inflation had reached a highset of 19.19 in December 2011but ever since the inflation rate has been declining apart from in 2007 when there was a general election and a lowest of 2.71 in June 2007.

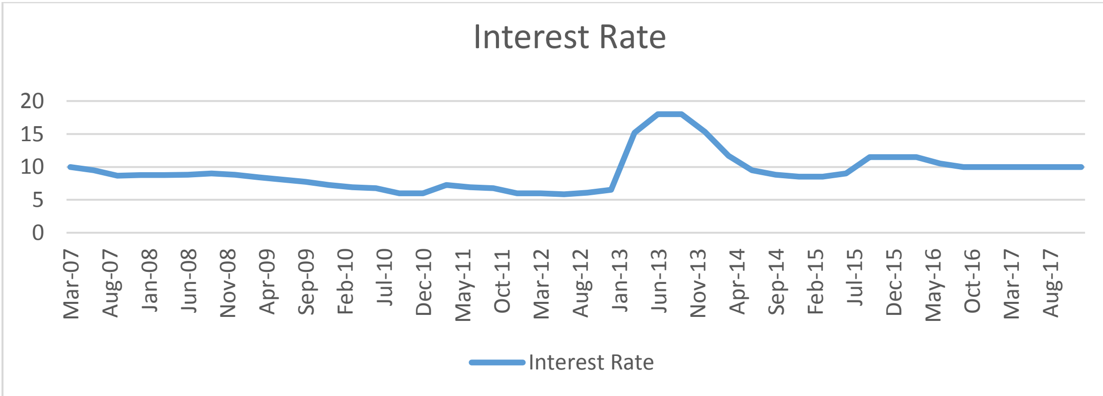
Figure 3 is a line graph of Kenya economic growth measured through the Gross Domestic Product from March 2007 to December 2017



Source: Kenya National Bureau of Statistics

Gross Domestic Product had a mean of 5.34% and SD of 2.23%. Highest economic growth of 12.40% was experienced in December 2010 and the lowest growth of 0.22% was experienced in December 2008 this was due to the post-election violence after the 2007 general election but later the growth picked up.

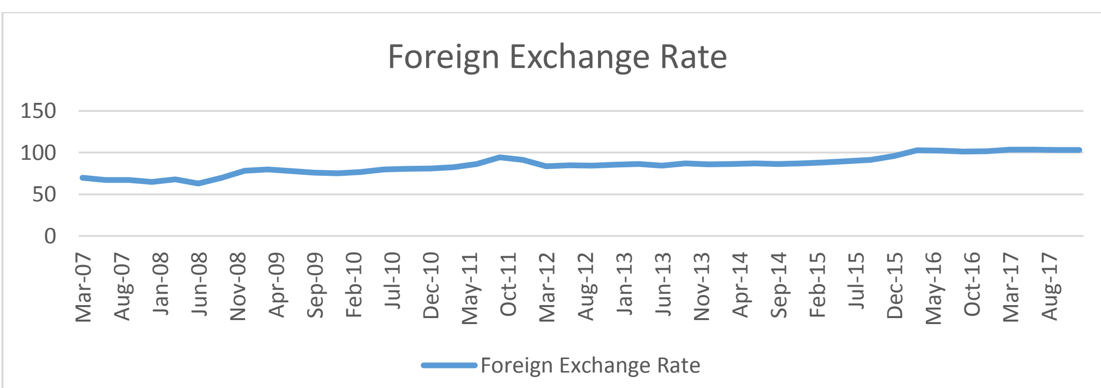
Figure 4 is a line graph of interest rate from March 2007 to December 2017



Source: Kenya National Bureau of Statistics

In my study period, Interest Rate had a mean of 9.27% and standard deviation of 2.90%. The highest interest rate of 18% was experienced in June 2013 and September 2013 and the lowest growth of 5.83% was experienced in June 2012. Interest Rate in this study shows that they have been fairly stable except from the duration of March 2013 and June 2013 where the interest rate rose to 15.17% and 18% respectively. As time went by interest rate declined to 9.5% in March 2013 and increased again to 11.5% in September 2015 this led CBK to draft amendments on the Banking Act {The Banking (Amendment) Act, 2015} with regards to the capping of interest rates. Finally, the amendments came into place in September 2016 and interest rate was set at 10% up to date.

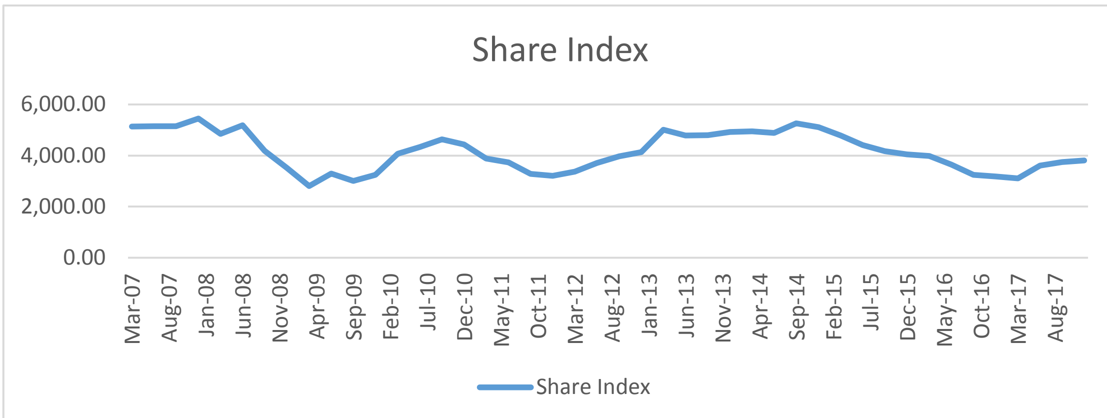
Figure 5 is a line graph of USD foreign exchange rate from March 2007 to December 2017



Source: Kenya National Bureau of Statistics

In my study period, Foreign Exchange Rate had a mean of 85.1 and standard deviation of 11.4. The highest foreign Exchange currency was at 103.10 and the lowest of 62.95. In my period of study, the USD foreign exchange rate had an inclining trend.

Figure 6 is a line graph of NSE 20 share price from March 2007 to December 2017



Source: Kenya National Bureau of Statistics and NSE 29 share index website

In my study period, NSE 20share price had a mean of 4,162.89 and standard deviation of 746.57. The highest was at 5,444.83 in December 2007 and the lowest of 2,805.03 in March 2009.

4.3 Regression Analysis

A various relapse investigation was utilized to build up the interconnection in the midst of the reliant and free factors. The investigation likewise tried the model's integrity as pursues.

4.3.1 Model Goodness of Fit

Table 4.2 Results of Model Goodness of Fit

Model Summary[b]

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Stats.					Durbin - Watson
					R^2 variation	F Variation	df 1	df2	Sig. F variation	
1	.747[a]	.558	.512	521.29833	.558	12.299	4	39	.001	.541

a. Predictors: (Constant), USD Foreign Exchange, Inflation Rate, Interest Rate, Gross Domestic Product
b. Dependent Variable: NSE 20 share index

Source: Own Computation

The dependent and independent relationship was found to be positive at 74.7%, where 55.8% variations in share price is expressed by the fluctuations in Expansion Rate, Total national output, Gross Domestic Product and USD Conversion scale.

This indicates that the difference in variation of the share price of 44.2% can be clarified by different components, which are excluded in the model. These factors can be the non-monetary factors e.g. political or social factors. F statistic of the study was at 12.299 and P Value below 0.001 validates the model and can therefore, be utilized to anticipate the estimation of the reliant variable with certainty (NSE 20 share index).

4.3.2. Findings of Analysis of Variance (ANOVA)

This model findings stated that sum of squares of regression were 13,368,582.074, 4 degree of freedom and a mean square of 3,342,145.519. the sum of squares of Residual at 10,598,326.207, at 39 degree of freedom and a mean square of 271,751.954. The P-value was at 0.001, which is less than 0.05 and therefore significant at 5% level of significance.

This model can be used to forecast the outcome of the autonomous variable since the calculated F value was at 12.99 above the F critical value at 4.64 and significance of 0.001% level of significance.

Table 4.3 Analysis of Variance (ANOVA).

ANOVA[a]

Model		Summation of Squares	Df	Mean Square	F	Sig.
1	Regression	13368582.074	4	3342145.519	12.299	.001[b]
	Residual	10598326.207	39	271751.954		
	Total	23966908.281	43			

a. Dependent Variable: NSE 20 share Index

b. Predictors: (Constant), USD Foreign Exchange Rate, Inflation Rate, Interest Rate, Gross Domestic Product

Source: Own Computation

4.3.3. Estimated Model

The estimated coefficients of regression model are as follows

Table 4.4 Estimated Model of coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	6630.728	735.768		9.012	.001	5142.496	8118.959		
	Inflation Rate	-51.807	23.226	-.303	-2.231	.032	-98.787	-4.828	.613	1.632
	GDP	52.185	43.871	.156	1.190	.241	-36.552	140.923	.657	1.521
	Interest Rate	93.410	29.653	.363	3.150	.003	33.432	153.389	.854	1.171
	USD FER Rate	-37.388	7.180	-.571	-5.207	.006	-51.910	-22.866	.942	1.062

a. Dependent Variable: NSE 20 Share Index

The coefficients of the model demonstrate the way of the interconnection in the midst of the reliant and autonomous factors. The discoveries from this examination affirm the hypothetical suppositions that development in Gross domestic product positively affects share cost while an expansion in Outside Trade and Swelling Rate has negative effect on offer costs. The investigation likewise discovered that financing costs positively affected offer costs. Institutionalized coefficients likewise affirms that there is a converse interconnection in the midst of offer costs and outside swapping scale and expansion rate.

4.4 Multicollinearity Test

Table 4.5 Variance Inflation Factor

	Tolerance	VIF
Inflation Rate	.613	1.632
Gross Domestic Product	.657	1.521
Interest Rates	.854	1.171
USD Exchange Rate	.942	1.062

4.4.1 Findings on Variance Inflation Rate (VIF)

The study found that the VIF values for Inflation Rate, Gross Domestic Product, Interest Rates and USD Exchange Rate were betweeen 1 and 10 and therefore, multicollinearity was not problematic in the examination.

4.5 Heteroscedasticity Test

The study found a significant value of 0.1552, which is more than 0.05 at 95% assuarity level, which implies that zero speculation is not excluded, and therefore variances for errors are the same. The study therefore concludes that the variances were homogenous.

Table 4.6 Findings in heteroscedasticity test

White's Heteroscedasticity	Chi square	19.26
	P value	0.1552

4.6 Linearity

Table 4.7 Linearity Test

			Summation of Squares	Df	Mean Square	F	Sig.
NSE 20 Share Index * Inflation Rate	Between Groups	(Combined)	21761342.903	38	572666.919	1.298	.423
		Linearity	4969896.555	1	4969896.555	11.267	.020
		Deviation from Linearity	16791446.348	37	453822.874	1.029	.552
	Within Groups		2205565.378	5	441113.076		
	Total		23966908.281	43			
NSE 20 Share Index * Gross Domestic Product	Between Groups	(Combined)	18976845.660	29	654373.988	1.836	.115
		Linearity	1825871.349	1	1825871.349	5.123	.040
		Deviation from Linearity	17150974.310	28	612534.797	1.719	.144
	Within Groups		4990062.622	14	356433.044		
	Total		23966908.281	43			
NSE 20 Share Index * Interest Rates	Between Groups	(Combined)	17773523.961	25	710940.958	2.066	.058
		Linearity	2576500.911	1	2576500.911	7.488	.014
		Deviation from Linearity	15197023.050	24	633209.294	1.840	.094
	Within Groups		6193384.320	18	344076.907		
	Total		23966908.281	43			
NSE 20 Share Index * USD Exchange Rate	Between Groups	(Combined)	22655872.834	40	566396.821	1.296	.483
		Linearity	4947883.812	1	4947883.812	11.322	.044
		Deviation from Linearity	17707989.022	39	454051.001	1.039	.580

Within Groups	1311035.447	3	437011.816
Total	23966908.281	43	

4.6.1 Findings in Linearity Test

The study conducted linearity test to determine whether the interconnection amidst the independent variables (Expansion Rate, Total national output, Financing costs and USD Conversion scale) and NSE 20 share index in Kenya was linear or not. According to the results shown in the Table below, the significant deviation from linearity is 0.552, 0.144, 0.094 and 0.580 for Inflation Rate, Gross Domestic Product, Interest Rates and USD Exchange Rate respectively, which is greater than 0.05 implying that there is a linear interconnection amidst the independent variables and NSE 20 share index in Kenya.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This part summarizes immediate outcomes and the summary of the study. The aim of the study was to consider the macroeconomic components on the execution of the stock grandstand on the Nairobi Securities Trade through share costs between Walk 2007 and December 2017.

5.2 Summary of the Findings

This study was to rate the consequences of selected macroeconomic variables. i.e. Inflation Rate, Gross Domestic Product, Interest Rates and USD Foreign Exchange Rate on stock market performance on NSE. The stated macroeconomic variables i.e. thus the independents variables was investigated to establish whether they influence the stock market performance thorough fluctuations pf share prices.

Multiple regression findings model concluded that the four independent variables Inflation Rate, Gross Domestic Product, financing cost and USD outside conversion standard had a joint impact of 55.8% in affecting the adjustments in the offered cost in the NSE. The difference of 44.2% of changes in the share prices was explained by other macroeconomic variables or other non- monetary factors that were excluded in the examination.

The investigation found that the VIF values for Inflation Rate, Gross Domestic Product, Interest Rates and USD Exchange Rate 1.632, 1.521, 1.171 and 1.062 respectively were betweeen 1 and 10 and therefore, multi-collinearity was not problematic in the study.

The study conducted Heteroscedasticity Test and found out that a significant value of 0.1552, which is more than 0.05 at 95% assuarity level, which implies that zero speculation isn’t rejected, and therefore the variances for the errors are the equivalent. The study therefore concludes that the variances were homogenous.

The study conducted linearity test to determine whether the interconnection amidst the autonomous factors (Expansion Rate, Total national output, Financing costs and USD

Conversion scale) and NSE 20 share index in Kenya was linear or not. According to the results shown in the Table below, the significant deviation from linearity is 0.552, 0.144,

5.3 Conclusion

The study concluded that the selected macroeconomic variables contributed to 55.8% variations in the share price. The study also concluded that there are other factors that contributed to the variation of share prices not included in this research. The exploration additionally reason that both Gross domestic product and loan fee had a critical constructive outcome on offer costs, while Expansion rate and USD Outside Trade negatively affected offer costs of firms recorded in the NSE. This implies there exist a backwards connection between expansion rate and remote trade and offer costs of firms recorded in the NSE.

The results showed that a growth economy measured by GDP and interest rate would boost stock prices and stock returns on the capital market, increase market capitalization and increase the confidence of investors in the capital markets. The study implied that economic growth underpins capital markets ' development and is therefore a key determinant in the stock market performance.

5.4 Recommendation of Policy

This examination therefore recommends that the macroeconomic environment is very important and monitored closely in order to ensure stability. Regions with a stable macroeconomic environment benefit from increased stock market activity, resulting in increased performance.

Stock market performance is an indicator of stock market stability for foreign investors; it is therefore, recommended that good measures, such as investor- friendly policies, be put in place to promote stock market activities that increase stock market performance.

The central bank should formulate fiscal and monetary policies that will ensure stable interest rate and inflation rate are maintained to avoid suppressing the economy through increased cost of doing business that erodes profits, which would otherwise be invested in the stock market. Those approaches ought to be defined by CBK to be defend the esteem of the Kenya shilling to guarantee that it increases in value against the major monetary standards hence reinforcing the economy and development of the stock showcase execution.

5.5 Limitations of the Study

The examination conducted was brief for a short period of 11 years, so it did not consider the long relationship of variables. The study also relied on secondary data, which was collected for other uses and not necessarily for this study and therefore could not reflect the actual results for this study**.**

5.6 Recommendation for Further Research

More macroeconomics elements should be incorporated in the further research. There should be exemption of the four elements researched so as to bring out the different elements statistics on the influence of each variable. this study recommends that the further researcher should investigate the effects of organisations characteristics on inventory advancement in Kenya at micro level since this study was at macro level .

The study also utilized only four macroeconomic variables, which were to enough to explain the outcomes of macroeconomic variables on inventory showcase advancement at the NSE. This project recommends that further studies should include others variables not used in this study

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APPENDIX 1: LIST OF CONSTITUENT FIRMS NSE-20 SHARE INDEX

S/N	FIRMS
1.	ARM Cement
2.	Bamburi Cement
3.	Barclays Bank Kenya
4.	Britam
5.	British American Tobacco Kenya
6.	Centum Invest
7.	CfC Stanbic
8.	Co-operative Bank
9.	East African Breweries
10.	Equity Group
11.	KCB Group
12.	KenolKobil
13.	Kenya Airways
14.	Kenya Electricity Generating
15.	Kenya Power Lighting
16.	Nation Media
17.	Safaricom
18.	Sasini
19.	Standard Chartered Bank
20.	WPP-Scangroup

APPENDIX 2: LIST OF LISTED COMPANIES AT THE NSE

	AGRICULTURAL
1.	Eaagads Ltd
2.	Kapchorua Tea Co. Ltd
3.	Kakuzi
4.	Limuru Tea Co. Ltd
5.	Rea Vipingo Plantations Ltd
6.	Sasini Ltd
7.	Williamson Tea Kenya Ltd
	AUTOMOBILES AND ACCESSORIES
8.	Car and General (K) Ltd
	BANKING
9.	Barclays Bank Ltd
10.	Stanbic Holdings Plc.
11.	I&M Holdings Ltd
12.	Diamond Trust Bank Kenya Ltd
13.	HF Group Ltd
14.	KCB Group Ltd
15.	National Bank of Kenya Ltd
16.	NIC Group PLC
17.	Standard Chartered Bank Ltd
18.	Equity Group Holdings
19.	The Co-operative Bank of Kenya Ltd
	COMMERCIAL AND SERVICES
20.	Express Ltd
21.	Sameer Africa PLC
22.	Kenya Airways Ltd
23.	Nation Media Group
24.	Standard Group Ltd
25.	TPS Eastern Africa (Serena) Ltd

26.	Scangroup Ltd
27.	Uchumi Supermarket Ltd
28.	Longhorn Publishers Ltd
29.	Atlas Development and Support Services
30.	Deacons (East Africa) Plc
31.	Nairobi Business Ventures Ltd
	CONSTRUCTION AND ALLIED
32.	Athi River Mining
33.	Bamburi Cement Ltd
34.	Crown Paints Kenya PLC.
35.	E.A.Cables Ltd
36.	E.A.Portland Cement Ltd
	ENERGY AND PETROLEUM
37.	KenolKobil Ltd
38.	Total Kenya Ltd
39.	KenGen Ltd
40.	Kenya Power & Lighting Co Ltd
41.	Umeme Ltd
	INSURANCE
42.	Jubilee Holdings Ltd
43.	Sanlam Kenya PLC
44.	Kenya Re-Insurance Corporation Ltd
45.	Liberty Kenya Holdings Ltd
46.	Britam Holdings Ltd
47.	CIC Insurance Group Ltd
	INVESTMENT
48.	Olympia Capital Holdings ltd
49.	Centum Investment Co Ltd
50.	Trans-Century Ltd
	INVESTMENT

51.	Home Afrika Ltd
52.	Kurwitu Ventures
	INVESTMENT SERVICES
53.	Nairobi Securities Exchange Ltd
	MANUFACTURING AND ALLIED
54.	B.O.C Kenya Ltd
55.	British American Tobacco Kenya Ltd
56.	Carbacid Investments Ltd
57.	East African Breweries Ltd
58.	Mumias Sugar Co. Ltd
59.	Unga Group Ltd
60.	Eveready East Africa Ltd
61.	Kenya Orchards Ltd
62.	Flame Tree Group Holdings Ltd
	TELECOMMUNICATION AND TECHNOLOGY
63.	Safaricom PLC
	REAL ESTATE INVESTMENT TRUST
64.	Stanlib Fahari I-REIT
	EXCHANGE TRADED FUND
65.	New Gold Issuer (RP) Ltd

APPENDIX 3: RAW DATA

QUARTERS	INFLATION RATE	GROSS DOMESTIC PRODUCT	INTEREST RATES	USD EXCHANGE RATE	NSE 20 SHARE INDEX
MAR-07	3.35	7.00	10.00	69.68	5,133.67
JUN-07	2.71	8.30	9.50	67.28	5,146.73
SEP-07	5.34	6.40	8.67	67.08	5,146.46
DEC-07	5.63	6.40	8.75	64.69	5,444.83
MAR-08	10.49	1.10	8.75	67.99	4,843.17
JUN-08	17.44	2.20	8.83	62.95	5,185.56
SEP-08	15.88	2.60	9.00	69.76	4,180.40
DEC-08	16.57	0.20	8.83	78.41	3,521.18
MAR-09	14.14	6.20	8.42	79.89	2,805.03
JUN-09	10.60	1.90	8.08	78.01	3,294.56
SEP-09	9.76	1.90	7.75	75.95	3,005.41
DEC-09	7.98	1.20	7.25	75.28	3,247.44
MAR-10	5.54	7.30	6.92	76.70	4,072.93
JUN-10	3.67	8.20	6.75	79.64	4,339.28
SEP-10	3.33	8.70	6.00	80.66	4,629.80
DEC-10	3.84	12.40	5.99	80.84	4,432.60
MAR-11	7.05	7.60	7.25	82.40	3,887.07
JUN-11	13.16	6.70	6.92	86.33	3,738.46
SEP-11	16.51	5.80	6.77	94.59	3,284.06
DEC-11	19.19	4.40	5.97	91.52	3,205.02
MAR-12	16.86	4.20	6.00	83.54	3,366.89
JUN-12	11.77	4.30	5.83	84.76	3,703.94
SEP-12	6.37	5.00	6.08	84.61	3,972.03
DEC-12	3.53	4.70	6.50	85.71	4,133.02
MAR-13	4.08	6.10	15.17	86.50	5,006.96
JUN-13	4.37	7.50	18.00	84.49	4,787.56
SEP-13	7.00	6.40	18.00	87.26	4,793.20
DEC-13	7.42	3.50	15.33	86.02	4,926.97
MAR-14	6.78	5.20	11.67	86.33	4,945.78
JUN-14	7.03	6.00	9.50	87.25	4,885.04
SEP-14	7.54	4.60	8.83	86.33	5,255.62
DEC-14	6.18	5.60	8.50	87.25	5,112.65
MAR-15	5.82	5.80	8.50	88.25	4,786.74
JUN-15	6.99	5.60	9.00	89.88	4,404.72
SEP-15	6.14	6.10	11.50	91.50	4,173.52
DEC-15	7.35	5.50	11.50	95.84	4,040.75
MAR-16	7.10	5.80	11.50	102.97	3,982.09
JUN-16	4.99	5.60	10.50	102.38	3,640.61
SEP-16	6.33	6.10	10.00	101.34	3,243.21
DEC-16	6.50	5.50	10.00	101.73	3,186.21
MAR-17	8.77	4.70	10.00	103.64	3,112.52
JUN-17	11.18	5.00	10.00	103.49	3,607.18
SEP-17	7.52	4.70	10.00	103.12	3,751.46
DEC-17	4.98	5.00	10.00	103.10	3,804.69