THE EFFECT OF FOREIGN DIRECT INVESTMENTS ON STOCK MARKET RETURNS AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than The University of Nairobi.

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DEDICATION

This work is dedicated to my husband, Tim, and my children, Nurjenna and Adeena, for enduring my absence from home.

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ABBREVIATIONS AND ACRONYMS

CPI	Consumer Price Index
FDI	Foreign Direct Investments
FII	Foreign Institutional Investments
GDP	Gross Domestic Product
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Square technique
SPSS	Statistical Package for the Social Sciences
UNCTAD	United Nations Conference on Trade and Development

ABSTRACT

The study sought to establish the relationship between FDI and stock market returns. The study was grounded on a descriptive research design. The secondary data on FDI, GDP growth, inflation, money supply, and NSE 20 Share Index was obtained from the Nairobi Securities Exchange (NSE), International Monetary Fund (IMF), and Central Bank of Kenya (CBK). The data covered the years 2002 to 2017. The data was analysed using Statistical Packages for Social Sciences (SPSS) (version 24) for descriptive and inferential statistics. Descriptive statistical techniques, measures of central tendency, was used to summarize the data into means and standard deviations. Inferential statistics included correlation and regression analysis. Correlations were used to determine the association between the each of the independent variables, notably, FDI, GDP, money supply, and inflation, the dependent variable, stock market returns. Regressions were used to demonstrate the relationship between FDI inflows and stock market returns, with GDP growth, money supply, and inflation as the control variables. Findings were presented in tables and graphs. The descriptive findings show that FDI inflows have consistently declined since 2011. On the other hand, money supply has consistently increased for all the years covered in the study. On the other hand, inflation has been highly volatile over the 15-year period. GDP growth has averaged between four and six percent over the past 10 years. Finally, NSE 20 Share index analysis indicates fluctuations in stock performance, with volatilities observed annually. Correlation analysis show that FDI has a weak but positive association with stock market returns. There was a strong and significant association between money supply and stock market returns as well as GDP and stock market returns. Inflation was negatively associated with stock returns. Regression coefficients indicate a positive and insignificant link between FDI net inflows and NSE 20 share index growth. R Square value shows that FDI is a weak predictor of stock market returns. Taking the money supply, inflation, and GDP as control variables, FDI has a positive effect on stock market returns; however, it is not statistically significant. The study recommends adoption of strong monetary and fiscal policies governing money supply and inflation. Further, the study also recommends the development of tailored policies that have the potential of overcoming market imperfections and promoting the integration of domestic and foreign firms into global networks hence increasing their ability to attract foreign capital.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Foreign Direct Investments (FDI) is viewed as a measure of economic development in both the first world counties and third world countries in the world (Onyinyechi & Ekwe, 2016). FDI and FII have since become powerful instruments of economic integration and development as evidenced by the fast-growing economies of Taiwan, China, Singapore, Hong Kong and South Korea (Wu, 2006). Foreign capital plays a significant role in every economy. Developed countries needs foreign capital to sustain its development projects while developing economies needs the foreign capital to support the much-needed resources for domestic investments, helps create job opportunities and transfer of managerial and technological expertise and skill set much needed to stimulate growth (Kinyua, 2014). While most countries appreciate the fundamental contribution of FDIs, a lot of work needs to be done to create business friendly environments to attract more of these funds (Kucbany, 2017).

The foreign direct investment dependency theory notes that there exists a dependency between the developed countries and developing economy. This has been explained by the fact that the third world countries export raw materials to the developed countries. The industrialized economies add value to the raw materials that they export back to the third world countries (Paskal & Chombo, 2009). The process of value addition increases the cost unlike for raw goods therefore the developing country would never get enough earnings from their exports earnings to cater for the imports. This theory supports explanations of a negative association between FDI and stock market returns (Onyinyechi & Ekwe, 2016). On the other hand, the internalization theory indicates that the

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multinational firms exist due limitations in the business environment in their countries of origin and therefore a need to expand to foreign markets and countries (Paskal & Chombo, 2009). In these foreign countries, the multinational firms then create internal markets through the diverse operations in countries that they operate from (Ngotho & Kerongo, 2014). The multinational companies with diverse operations and assets across the world achieve their business objectives through exploiting their resources for both tangible and intangible resources.

Nairobi Securities Exchange has been one of the best performing securities market in Africa. This trend is largely because of sound macroeconomic policies and strong economic performance that has been witnessed in Kenya (Munyao, 2013). The enabling economic environment has also attracted huge amounts of FDI and FII into the country. Additionally, innovations relating to new products and new listings have also helped to boost the profile of the NSE to local and international investors (Paskal & Chombo, 2009).

1.1.1   Foreign Direct Investment

As defined by Paskal and Chombo (2009) foreign direct investment refers to ownership of business enterprise or a company in given country by a foreign entity. Munyao, (2013) reported a positive relationship between FDI and investment returns, and a subsequent impact of foreign capital on the improvement of the economy. Foreign direct investment involves ownership of at least 10% equity in business enterprise by a foreign entity. The FDI have been categorized into three classes; equity capital, reinvested earnings and related party transactions (Mbithe, 2016).

A country's appeal for FDI is influenced by many factors. Exchange rate volatility, government trade restrictions and barriers, political environment and economic growth

potential. High growth countries with business-friendly environments present high return-low risk profiles for investments hence attracting more funds (Ssebugwawo & Peter, 2010). According to World Bank, report of 2017, Kenya was ranked 92nd out of 189 countries which benefit from FDI (Kucbany, 2017). This presented an improvement in the ranking from 105 position in 2016 to 92 position 2017. Although FDI remains relatively weak, it has been on an increasing trend since 2010 implying that in future, Kenya will be one of the largest recipient of FDI in Africa (Kucbany, 2017). This is attributable to simplified business formation requirements, simplified procedure for mergers, take overs and transfer of ownership as well as enhanced access to business loans and electricity. As part of Vision 2030, Kenya aims to simplifying licensing of business enterprises for foreign investors and enhance opportunities for public-private partnerships (Jamesa, 2016). This is outlined in the economic pillar of the Vision 2030.

1.1.2 Stock Market Returns

Return on stock is the difference between the wealth accumulated at the end of a period and an initial amount invested on the stock. It relates to the money made or lost on an investment. However, the precise definition of return is situational and dependent on the financial metrics and the period used to measure it (Wahome, 2013). To have a unified definition, investors usually covert the different returns to the same time interval in a process called annualization; it involves converting shorter or longer return intervals to annual returns. Stock market returns positively affect the economy (Wu, 2006). Developing a unified measure of return helps investors and policy makers draw comparisons, develop benchmarks and evaluate stock market returns performance. Stock performance generally examines the behaviour of a security relative to a market benchmark (Onyinyechi & Ekwe, 2016).

The growth of returns in stock exchange in Nairobi Securities Exchange (NSE) has been so encouraging for foreign investors. There has been a variety of explanations for these high returns; productivity has escalated across the country, technological improvements, increased FDI and FII, improvement in technical skills of Kenyan labour market, and also due to the increase in the number of investors in stock-market (Kinyua, 2014). There has also been an increase in the level of awareness of benefits of investing in stock market returns and whereby the participants in the stock market returns hope for more returns in future and this keeps them investing more (Mbithe, 2016).

1.1.3 Foreign Direct Investments and Stock Market Returns

Theoretical literature links the impact of foreign direct investment on stock market returns through various channels such as technology transfers, investments, and increased output and market participants' expectations. The Capital Arbitrage Theory states that foreign investors direct their capital resources according to the return rates of capital investments (Onyinyechi & Ekwe, 2016).

Generally, studies have shown that there is a positive association between FDI and returns of stocks. Increase in FDI brings with it improved technology in production, which increases production and GDP. Increased GDP boots share prices which in turn increases returns (Onyinyechi & Ekwe, 2016). Foreign investors invest their capital in countries that have insufficient capital but high expected return on investments (Kucbany,2017). These investments last until the rates of return on investment reach an equilibrium as compared to other countries of investment. This theory assumes that the investing foreign firms enjoys some technical or managerial advantages as compared to the country of investment making it prosper in the foreign county than the local investors in that country (Ssebugwawo & Peter, 2010). The theory assumes that in a perfect market, any additional

investment results into an increase in the level of returns until an optimal point where more investments results into diminishing returns (Jamesa, 2016). Therefore performance of FDI is attributable to various factors such as the nature of the market, level of investment and productivity of labour among other market factors (Onyinyechi & Ekwe, 2016).

FDI has other positive effects on a country's economic development. This is evidenced by both the country's security market development and returns on the listed companies (Paskal & Chombo, 2009). Since most economies are evaluated by the performance of their securities market, numerous African countries are implementing aggressive strategies with a view to attract more FDI (Wahome, 2013). This performance is usually measured by the market index movement, market capitalization and stock turnover.

1.1.4   Foreign Direct Investments and Stock Exchange in Kenya

In the year 1954, Nairobi Securities Exchange (NSE) was formed by interested stockbrokers through registration and in compliance to Societies Act. NSE had a very humble beginning but with time in continued to grow (Kinyua, 2014). Despite its registration in the year 1954, NSE genesis is tracked back in the 1920s under the British colony whereby only Europeans and Africans were allowed to informally trade in shares and stocks (Mwaura, 2016). Asians were allowed to trade in the shares 10 years after the registration of NSE and immediately after the Kenyan Independence in the year 1963. The NSE was fully owned by the government until the year 1988 when the government sold 20% of its stake to private investors (Kucbany, 2017).

The Nairobi Securities Exchange has been one of the best performing securities market in Africa. This trend is largely because of sound macroeconomic policies and strong economic performance that has been witnessed in Kenya (Munyao, 2013). The enabling

economic environment has also attracted huge amounts of FDI and FII into the country. Additionally, Innovations relating to new products and new listings have also helped to boost the profile of the NSE to local and international investors (Paskal & Chombo, 2009).

Mwaura (2016) noted that FDI was positively correlated with price volatility of securities in Kenya. Amongst the aspects that were found to influence the price volatility included foreign currency exchange rates. Mutindi (2013) undertook a study that examined the foreign exchange rate fluctuation on stock market returns volatility. Kucbany (2017) examined the influence of the macroeconomic variables and FDIs in Kenya and reported a strong positive relationship between FDI and macroeconomic variables, including the GDP.

1.2   Research Problem

Amongst the aspects used in measurement of economic growth is stock market returns. These are monetary returns that investors in the stock exchange get in return for their investments. The monetary returns could be in form of profits and dividends. The FDI has been associated with stock market returns in diverse ways including increasing market capitalization. The FDIs have thus been associated with stock market returns development and consequently returns for the investors. The FDIs also act to signify a stable economic environment in a given country.

Diverse studies have examined the influence of FDIs on stock market returns. In India, Sultana & Pardhasaradhi (2012) demonstrated a significant positive link between FDI and stock market returns in India. Adam and Tweneboah (2009) examined the role of FDI on stock market returns development in Ghana and showed the existence of a significant relationship between the FDI and stock market returns; that a 1% increase in FDI

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increased stock prices by 8.22%. Oseni and Oluwafeni (2011) studied the effect of foreign direct investment on the Nigerian economy and established a positive impact on stock market development.

In Kenya, Njane (2017) examined the effect of FDI inflows on stock market development, using economic growth, interest rates, inflation, and exchange rates as the control variables. Employing a descriptive research design and a multiple linear regression model, the study revealed that individually, FDI inflows, economic growth, interest rates, exchange rates and inflation were statistically insignificant determinants of capital market returns development in Kenya. Mwaura (2016) investigated the relationship between FDI and stock market price volatility at the NSE. The study concluded that an increase in FDI inflows, exchange rate and interest rate leads to price volatility of securities while inflation adversely affects price volatility of securities at the NSE.

There is mixed results from studies on the role of FDI on stock market returns across the world and in Kenya. Because of the inconclusive findings this study seeks to examine the impact of FDI's on stock market returns in relation to a different set of variables; GDP, inflation and money supply, other than interest rates and exchange rate commonly studied, to establish the nature of the linkages.

1.3   Research Objective

To investigate the effect of foreign direct investment on stock market returns at the Nairobi Securities Exchange.

1.4 Value of the Study

The study is beneficial to the government. The government, through the Central Bank of Kenya and the National Treasury, are responsible for decisions that directly impact economic growth and development. The capital markets are central to the operations of the financial sector in the economy. The study can be used by the government not only to provide insight on the links between FDI and capital market growth, but also influence monetary and fiscal policies necessary for achieving and maintaining sustainable growth and development.

The study is beneficial to investors, particularly foreign investors, interested in investing on equities at the NSE. Foreign institutional and high net worth investors will benefit immensely from this study since they are interested in making attractive returns on their investments. Whether this return is primarily due to company specific fundamentals or because of other factors like FDI flows is important.

The study also provides additional empirical evidence to enrich ongoing economic research and academic debates on the determinants of stock market returns, by focusing on a single macroeconomic variable, the FDI. The evidence provided in this study suggests a positive effect of FDI on returns at the NSE, but this effect is not statistically significant. The finding therefore support earlier studies that reported a positive association.

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

This section presents an analysis of existing literature on the relationship between foreign direct investment and stock market returns. The section covers the theoretical background, which describes two theories grounding the study: neo-classical growth theory, foreign direct investment dependency theory and internalization theory, followed by an empirical review showing studies on the determinants of stock market returns, and the relationships between FDI, GDP, inflation and money supply on stock market returns, globally and locally. The chapter ends with a presentation of the conceptual framework.

2.2   Theoretical Review

2.2.1   The Neo-Classical Growth Theory of Solow/Swan

This theory was propounded by Fredrick Taylor in 1920. The theory notes that FDI within a country is beneficial in many ways. These ways include assisting the host country have investments that surpass their capital availability. This capital availability is often through the country saving. Therefore FDI acts as a source of capital which is associated with economic productivity and hence increase in stock market returns. Mankiv (2003) notes that in respect to the FDI there is a difference between the private and public sector investments. In this context, the public sector investment may have a preference for infrastructural investments unlike the private sector. Mankiv (2003) notes that the host country policy makers must ask which type of investments they desire most.

This theory is useful in the study as it helps explain how FDI relates to stock market returns. The theory supports the position that FDI is beneficial to the country and this can be measured using the stock market returns will thus be tested in this study.

2.2.2 Foreign Direct Investment Dependency Theory

This theory is attributed to Prebisch in 1950 in which the role of the FDI on the economy was examined. The study indicated that FDI doesn't have a positive but rather a negative influence on the economy due to the dependency relationship between FDI and developing countries (Kucbany, 2017). The theory notes that there exists a dependency between the developed countries and developing economy. This has been explained by the fact that the third world countries export raw materials to the developed countries. The industrialized economies add value to the raw materials that they export back to the third world countries (Paskal & Chombo, 2009). The process of value addition increases the cost unlike for raw goods therefore the developing country would never get enough earnings from their exports earnings to cater for the imports. In addition, FDI is a form of entry of developed economies into developing countries in which it brings in complicated and superior equipment therefore outperforming local industries by destroying domestic micro businesses through use of higher technology and greater advertising skills (Wu, 2006). FDI contributes significantly to the balance of payment problems of most advancing countries as the profit earned by the multinationals are usually returned to the investing economy. These activities of the foreign investors usually create imbalance in the developing country therefore affecting the chance for economic growth (Musau, 2010).

The implication of this theory is that it supports the position that a negative link exists between FDI and stock market returns (Onyinyechi & Ekwe, 2016). This is because the

higher levels of technologies introduced into the developing country bring about labor savings which influence the demand for domestic labor and then prolongs the level of poverty thereby reducing savings making it difficult to develop stock market returns in terms of liquidity and size (Kinyua, 2014).

This theory is applicable because it posits that FDIs injection makes the country dependent of such financial investments and thus reduces the stock market returns. The study in this context will seek to check on whether increase in FDI has been associated with decrease in stock market returns in the country.

2.2.3   Internalization Theory

The internalization theory was propounded by Ronald Coase in 1937.The theory seeks to examine the contexts in which the multinational firms exist and thrive in diverse markets and economies. The theory indicates that the multinational firms exist due limitations in the business environment in their countries of origin and therefore a need to expand to foreign markets and countries (Paskal & Chombo, 2009). In these foreign countries, the multinational firms then create internal markets through the diverse operations in countries that they operate from(Ngotho & Kerongo, 2014). The multinational companies with diverse operations and assets across the world achieve their business objectives through exploiting their resources for both tangible and intangible resources. Amongst the most critical resources are the proprietary knowledge and the ability to internalize its operations. The operations internalization refers to the ability of the multinationals to standardize their operations across diverse countries where they operate from (Onyinyechi & Ekwe, 2016). This leads to the multinational firms using the same corporate governance mechanisms and governance structures.

The choice of countries on where the multinationals operate from is based on the competitive advantages of the location such as infrastructural development, political stability and ease of doing business amongst other dynamics. Kucbany (2017) also notes that the multinational firms would try to create barrier for entry in their region through the use of their home countries resources. The multinational firms may also fully own the subsidiaries in different countries and additionally post some of their staff in those areas. Thus the purpose of the multinationals engaging in FDI is to increase on the internalization advantages that are present in operations.

The internalization theory is applicable to this study in the context that the study will examine on whether the multinational firms that are associated with the FDIs negate stock market returns during repatriation of their profits to the countries of origins. This will be tested in the study to test the presence of a negative correlation between the two variables.

2.3   Factors Influencing Stock Market Returns

There exits an array of factors that determine stock market returns in a country. The main factors include Foreign Direct Investment, dividend payouts, money supply and inflation.

2.3.1   Money Supply

Paskal and Chombo (2009) note existence of two different explanations on how money supply influences stock prices. These two explanations are in opposite directions and hence are competing in nature. One of these explanations is the monetary portfolio hypothesis. The hypothesis notes that diverse changes in money supply leads to a need amongst the investors to readjust their portfolios in the market to represent their interests. These new portfolios are associated with price changes in the held assets in the portfolios. The second explanation is the efficient market hypothesis which supports a positive

correlation between money supply and demand of shares (Onyinyechi & Ekwe, 2016). This results into increase in prices of shares. The demand for stocks is associated with increase of money supply into the economy. The assumption is that the change in money supply that is reflected in the stock prices assumes that all information on the money supply is reflected in share prices. The findings from the diverse scholars suggest that there is a direct causal relationship.

2.3.2 Inflation

Assaf & Wuorio (2016) notes that inflation a substantive increase in money supply that has an influence on the price increase due to reduced purchasing capacity of the money. In developed countries, empirical results show that inflation is negatively correlated with stock market returns. This has been associated with the fact that high and constantly changing inflation is associated with financial uncertainty which has the effect of reducing investor confidence and hence stock prices (Jamesa, 2016). Diverse scholars have found positive correlation between existing stock market returns and inflation. Onyinyechi & Ekwe (2016) note that the capacity to understand macro variables influencing stock market returns provides an hedging opportunity for investors in the equity market.

2.3.3 Gross Domestic Product

Across the world, countries have been experiencing seasons of boom and seasons of recession in economy. During boom in the economy, citizens have higher purchasing power and therefore increasing the amount of expenditure in the economy as compared to seasons of recession in the economy where the expenditure is low. According to Jamesa (2016), during recession, the GDP declines and the demand for goods and services also declines leading to reduction of profitability by commercial firms. During boom periods,

the GDP increase and demand for goods and services also increasing leading to increase in the profitability of the financial firms.

Keynes's theory seeks to determine the equilibrium between real GDP, prices of commodities and employment in a country by examining the relationship between the amounts of income of citizens and their level of expenditure. Keynes cited that the equilibrium level of real GDP may not correlate with the natural real GDP. According to the income-expenditure model, the level of aggregate expenditure by citizens can be equated to the level of real GDP (Onyinyechi & Ekwe, 2016). Low aggregate expenditure will imply that the citizens are not able to purchase all commodities supplied by the real GDP. This shifts the level of equilibrium below the natural level of GDP leading to fall of prices as well as wages. This further compels the producers to reduce production costs until the demand increases to an equilibrium level to the supply of real GDP (Jamesa, 2016).

2.4   Empirical Literature Review

There is a significant body of empirical studies both locally and internationally to support the linkage of FDI on various aspects of the economy; economic growth, stock market returns development, financial markets development and security prices volatility. However, majority of the previous studies did not look into the link between FDI and stock market returns.

2.4.1   Global Studies

An examination of the literature review on the FDI influence on stock market returns indicates that this relationship has been examined in three different ways. The correlation between the FDI and domestic capital flow has been examined. In this context, FDI was

noted to positively correlate with funds availability in the economy. A majority of the firms that re engaged in FDI often cross list their shares on diverse stock exchanges including in that of the host country (Onyinyechi & Ekwe, 2016). This phenomenon has been attributed from the influences of the country of origin of the FDI companies where stock exchanges play a fundamental role in their financing efforts. The second pillar of argument is that companies involved in FDI would often invest in well-developed and functional stock exchanges (Kucbany,2017). This is due to the perception that such stock exchanges are an indication of financial stability. Finally, the FDI investment in the stock exchange is associated with the firm's greater adoption of local rules and regulations and hence becoming market friendly (Wu, 2006).

Diverse scholars have examined on the role of FDI on different areas of the economy and financial sector. Theoretically, FDI is considered important in the economic development of the host country. These effects could be seen in productivity gains, improved managerial skills and know-how, employee training, introduction of new processes and technological transfers (Oseni & Oluwafeni, 2011). More importantly FDI helps in modernizing the host country's economy and promoting its growth. While such effects are well researched and evidenced, how FDI influences stock market returns is still not clear (Munyao, 2013).

In Ghana, Adam examined the influence of FDI on returns in the capital market returns. The study used multivariate co-integration. The results indicate that there is a long-run relationship between FDI, nominal exchange rate and stock market returns. Using pooled regression, Chousa & Krishna (2008) assessed whether stock market returns attract firm level FDI. The study focused on cross-border Mergers & Acquisitions (M&As) covering nine emerging economies. The data covered the period of 1987-2006. The results showed that stock market returns have a strong and positive impact on cross border M&As deals

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and values. Robert (2008) used the Box-Jenkins ARIMA model and found no significant relationship between exchange rate and oil prices on the stock market returns index prices among four emerging economies.

In India, Shahbaz, Hoang, & Roubaud (2008) in an examination of the relationship between stock market returns and economic growth found that there exists long run bi-directional causality between the two variables. However, the results showed one-way causality from stock market returns to economic growth in the short run. The institutional and regulatory reform, listing requirements, adequate disclosure, and fair trading practices have been noted to be key factors considered by foreign investors. A study by Singh (1997) indicated that economic growth is a significant predictor of stock market returns. A study by Belanes (2007) sought to establish whether the impact of stock market returns in the economy of a country using stock market returns liquidity, saving rate, the stabilization variables, and financial intermediary as predictors of stock market returns. Returns in stock market returns were further found to be influenced by macroeconomic indicators in the Middle Eastern and North African region.

Sakar (2007) used ordinary least square technique (OLS) to investigate the link between stock market returns and capital accumulation in 37 developed and less developed countries. The time series data covered the period 1976-2002. Sakar (2007) found out that there is no positive relationship between stock market returns turnover ratio and gross fixed capital formation in the long term. De-la-Torre & Augusto (2007) investigated the effect of stock market reforms and internationalization policies on domestic stock market returns. The study used data on market capitalization, and covered 117 countries, for the duration 1975-2004. The study found that reforms lead to increased domestic market capitalization and trading. The association between outbound FDI and levels of domestic capital formation was also examined by Fritz & Mihir (2005). The study used regression

analysis for data collected on the 1980s and 1990s using a broader sample of countries. The study concluded that the assumption that FDI comes at the expense of domestic investment.

There are many other factors responsible for attracting FDI inflows, and the exact mechanism through which it affects economic growth remains inconclusive. Bronsznestein et al. have found that the level of human capital has a significant effect on FDI flows, and by extension, economic growth. In this regard, better endowment of human capital increases the ability of host countries' to benefit more from technology transfer. In a sense, the positive effects of foreign direct investment are dependent on other factors such as human capital as well as policies that support trade openness.

A study by Onyinyechi & Ekwe (2016) used a mixed-fixed and random panel data estimation method to determine the influence of FDI on GDP growth rate in the long term. The study found that although the relationship is heterogeneous across countries, the causal relationship is higher for more open economies. Paskal & Chombo (2009) also noted that FDI is a major contributor to economic growth. The level of local financial markets was noted to be of great importance in the realization of positive effects. Wu (2006) indicated that the level of a host country's economic development also the level of benefits of productivity fostered by foreign investment. In this context, higher level of development has been noted to result in stronger positive effect of FDI. However, Jamesa (2016) differ from this stance and argue that FDI and economic growth do not have a significant positive relationship and in instances where the relationship is positive, it is weak.

2.4.2   Local Studies

Mwaura (2016) undertook a study that sought to examine the influence of FDI on price volatility of securities at NSE. The study found that FDI was positively correlated with price volatility of securities using a casual study design in the data analysis. However, the relationship was not found to be statistically significant. Amongst the aspects that were found to influence the price volatility included foreign currency exchange rates. However, this influence was not found to be statistically significant.

Mutindi (2013) undertook a study that investigated the relationship between foreign exchange rate fluctuations and stock market returns volatility at the NSE, using exponential generalized autoregressive conditional heteroscedasticity (EGARCH) in the empirical analysis. The study found that foreign exchange rate affect stock return volatility. Kucbany (2017) examined the influence of the macroeconomic variables and FDIs in Kenya, from 1970 to 2016, and demonstrated that a strong positive and significant relationship exists between FDI and GDP.

Musau (2010) assessed the link between FDIs and economic growth in Kenya, using data covering ten years, 2000 to 2009. Linear regression analysis showed a significant relationship between FDI and economic growth over the period. Kibe (2015) examined the impact of exchange rate volatility on foreign direct investments in Kenya with a focus on Procter and Gamble Kenya. The study found that financial risks have high negative impact performance of companies that have invested in Kenya as Foreign Direct Investments. This study adopted a descriptive research design and sampled 50 finance staff of the Company. Both secondary and primary data were analysed.

2.5   Conceptual Framework

The framework gives an indication of the various variables identified in the literature review. These include FDI and stock market returns. FDI is the independent variable whereas the stock market returns return is the dependent variable. The control variables for this study are money supply, inflation, and Gross Domestic Product.

Independent Variable   **Dependent Variable**
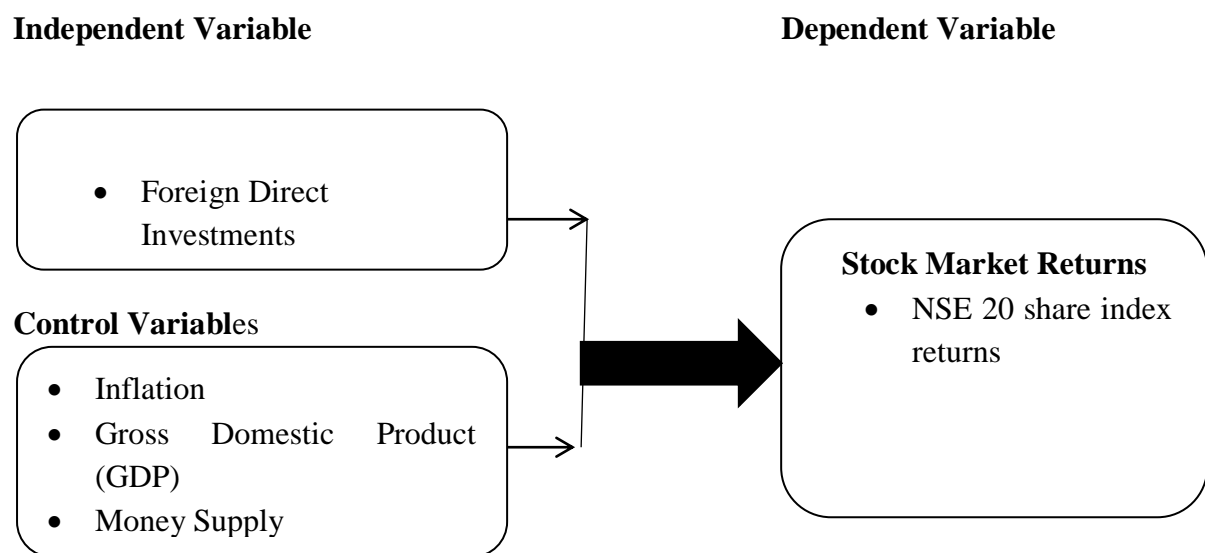
Figure 2.1: Conceptual Framework (Researcher, 2018)

2.6   Summary of Literature Review

In Ghana, Adam &Tweneboah (2009) demonstrated a long-run relationship between FDI, nominal exchange rate and stock market returns. Using pooled regression, Chousa & Krishna (2008) found that stock market returns have a strong, positive and significant effect on the value of cross-border mergers & acquisitions. Robert (2008) found no significant relationship between exchange rate on stock market returns index prices. Shahbaz, Hoang, & Roubaud (2008) found that there exists long-run bi-directional causality between stock market returns and economic growth in India. A study by Singh (1997) indicated that economic growth could be used to predict the level of development

stock market returns. Sakar (2007) reported no positive long-term effect between stock market returns turnover ratio and gross fixed capital formation. A study by Onyinyechi and Ekwe (2016) found that although the relationship between FDI and GDP growth is heterogeneous across countries, the causal relationship is higher for more open economies. Mwaura (2016) undertook a study that found that FDI was positively correlated with price volatility of securities. However, the relationship was not found to be statistically significant. These studies show that there are mixed results in the relationship between stock market returns and macroeconomic variables, and that the empirical evidence on the association between FDI and stock market returns is inconclusive, hence the justification for this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1   Introduction

A research methodology is a framework that assists in effectively collecting data which when analyzed will help answer the research (Kothari, Kumar, & Uusitalo, 2014). The influence of FDI on stock market returns was analyzed using correlation and regression analysis. This chapter systematically outlines the various steps that were undertaken to realize the study's objective of examining the relationship between FDI as the independent variable and the stock market returns index as the dependent variable.

3.2   Research Design

A research design refers to a conceptual structure that guides the conduct of the study in the most efficient way possible. The research design ensures that minimal effort, time, and finances are expended during the collection of relevant evidence to support the research objectives. A descriptive research design was adopted for this study. The research design allows for exploration of quantitative aspects of the influence of FDI on stock market returns in Kenya. This is because the design does not allow for manipulation of variables as respondents record their real attitudes and perceptions on the subject matter. This design enabled the researcher to study explore the long-term and causal link between FDI and NSE 20 share index which are the two main variables of this study. The NSE 20 share index return was used as the proxy measure for stock market returns.

3.3   Population

The study was based on secondary data relating to FDI inflows and the NSE 20 share index compiled from various sources. The data covered the 2002 to 2017 period. This

study period is picked with a view to be able to undertake trend analysis and also a long period of time enables the variables to be accurately measured.

3.4 Data Collection

The secondary data was obtained from the Nairobi Securities Exchange, International Monetary Fund, and Central Bank of Kenya. From the International Monetary Fund and Central Bank of Kenya, the data included FDI net inflows, GDP, inflation, and money supply. NSE 20 Share Index data was obtained from the Nairobi Securities Exchange.

3.5 Data Analysis

The analysis of data entails operations that include organization of data into categories coding which includes assigning numerical numbers to the categories, tabulation for presentation purposes and to provide a summary of the data, and drawing of statistical inferences. The Statistical Package for the Social Sciences (SPSS 24.0) was used to generate inferential statistics necessary for determining the relationship between the study variables, respectively. For inferential statistics, the statistical tools, correlation and regression model, were used. The regression model which will be employed is as follows:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where: Y = Stock Market Returns (NSE 20 share index returns)

X_1 = Foreign Direct Investment inflow rate measured by FDI/GDP

X_2 = Inflation rate measured by Consumer Price Index (CPI)

X_3 = Money Supply (M_2) measured by M_1 plus short term deposits in banks

X_4 = Gross Domestic Product measured as a percentage of Kenyan Shillings

ε = stochastic error term

β_0 = Intercept/ constant

3.5.1 Data Validity & Reliability

Validity is defined as the degree to which a measuring tool is able to measure what it claims to (Mugenda, 2003). On the other hand, reliability refers the ability a measurement tool to deliver consistent results and is an indication of the suitability of the data for analysis (Kothari et al.,2014). The study used tests of significance to determine the degree to which secondary data collected from the official company or organizational websites, peer reviewed journals, and other referenced sources are accurate and can be said to indicate any conclusions. The researcher carried out status checks to ascertain whether it is reliable.

3.5.2 Significance Tests

The study used the F-test and the t-test to test the statistical significance of the study results, were used at 95% confidence level. The F statistic was used to determine whether the model is a good fit for data while the t statistic was used to test whether the study coefficients are statistically significant.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1.Introduction

The chapter presents the data analysis, presentation and interpretation of data. It is divided into subsections covering descriptive, correlation, and regression analysis and discussion of the results. The study sought to determine the influence of foreign direct investment on stock market returns. Based on secondary data obtained from the IMF, CBK, and NSE, the study presents descriptive statistics summarizing data on FDI, money supply (M2), inflation, GDP growth and NSE 20 Share Index growth. The section also presents the correlation analysis and regression analysis showing the relationship between the independent variable (FDI) and dependent variable (NSE 20 Share Index as a measure of stock market returns), as controlled by money supply, inflation, and GDP growth.

4.1.Diagnostic Tests

Diagnostic tests are used to ensure the validity of the findings. Diagnostic tests are important because many statistical measures, including correlation, analysis of variance, t tests, and regression analysis are based on the assumption that the data followed a normal distribution or a Gaussian distribution. One of the major diagnostic tests is the test for normality to determine whether the data follows the assumption of a normal or Gaussian distribution. This study used two tests, the Kolmogorov-Smirnov test and the Shapiro-Wilk test to establish the nature of the distribution. The findings, presented in Table 4.1, shows the normality for all the variables. The FDI inflows showed a statistically significant distribution of NSE Share index on Kolmogorov-Smirnov test (P=0.200) and p= 0.017 on the Shapiro-Wilk test. There was statistically significant distribution of FDI inflows in both the Kolmogorov-Smirnov test (p=0.000) and the Shapiro-Wilk test

(p=0.000). Inflation recorded 0.021 on Kolmogorov-Smirnov and 0.002 on Shapiro-Wilk. GDP was 0.001 on Kolmogorov-Smirnov and 0.003 on Shapiro-Wilk. Finally, for money supply, the values were 0.172 on Kolmogorov-Smirnov and 0.007 on Shapiro-Wilk test. These results show that all the variables are not normally distributed, hence satisfying the preconditions for multiple regressions.

Table 4.1: Tests for Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
NSE 20 share index returns	.082	64	.200[*]	.953	64	.017
Foreign Direct Investment (as a % of GDP)	.244	64	.000	.666	64	.000
Money Supply	.101	64	.172	.945	64	.007
Gross Domestic Product	.152	64	.001	.939	64	.003
Inflation	.121	64	.021	.936	64	.002

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

4.2.Descriptive Analysis

4.2.1. Descriptive Statistics

The study summarized secondary data on independent, dependent, and control variables, using measures of central tendency, specifically mean and standard deviation. The data covered the 2002-2017 period. The results indicate a minimum of 0.113%   and a maximum of 3.465% in FDI net inflows as a % of GDP, with an overall mean of 1.040 for the years covered. For the dependent variable, NSE 20 Share Index, the lowest reported for the period was 1,362.422 compared to the highest metric of 5,270.687. The mean was 3,786.097.

For the control variables, the findings indicate a mean of 7.593% (inflation), 1,133,674.765 (money supply), and 4.91 (GDP growth) over the past 16 years, as shown in Table 4.2.

Table 4.2: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
FDI net inflows (as a % of GDP)	.113	3.457	1.040	1.038
Inflation (%)	2.156	15.101	7.593	3.402
GDP (%)	.232	8.402	4.791	2.151
Money Supply (Kshs)	331,865.510	2,464,988.710	1,133,674.765	734,664.991
NSE 20 Share Index	1,362.422	5,270.687	3,786.097	1,074.426

4.2.2. Trend Analysis

4.2.2.1.FDI as a percentage of GDP

FDI inflows as a % of GDP were relatively low pre-2011, with the exception of 2007 (2.28%). While 2011 reported the highest FDI inflows over the period of analysis, it has been succeeded by a consistent decline in net inflows relative to GDP growth.
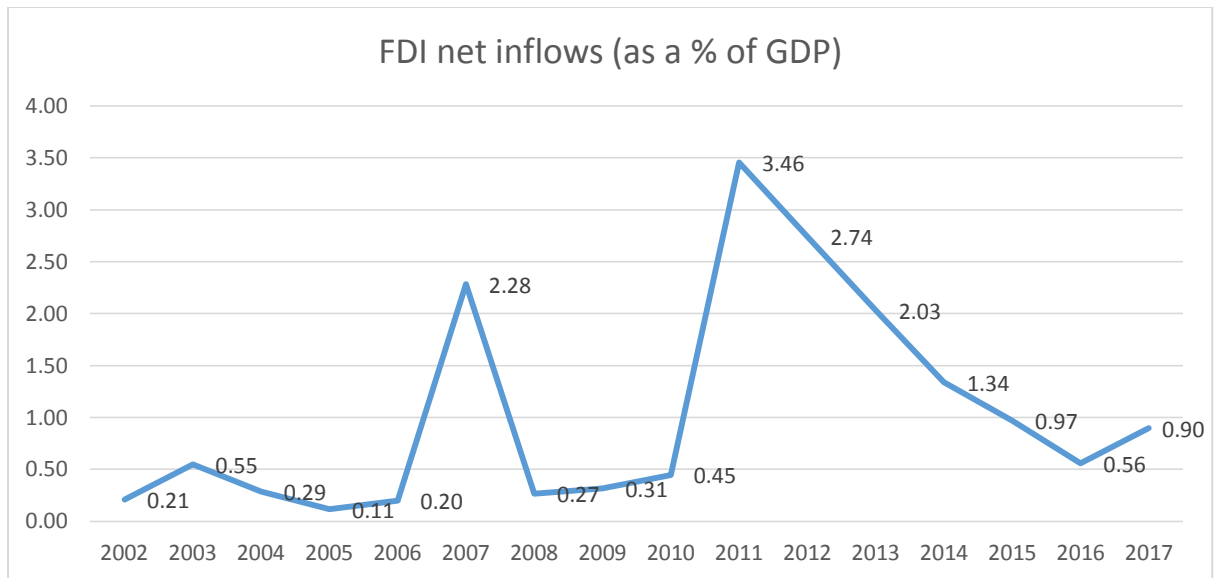
Figure 4.1: FDI as a percentage of GDP trend analysis

4.2.2.2.Money Supply

There has been a consistent growth in money supply, with a steady increase reported from 2002 to 2017. In essence, there has been a consistent growth in the total value of money assets in the economy. This growth is often associated with lowered interest rates and resultant generation of more investment opportunities.
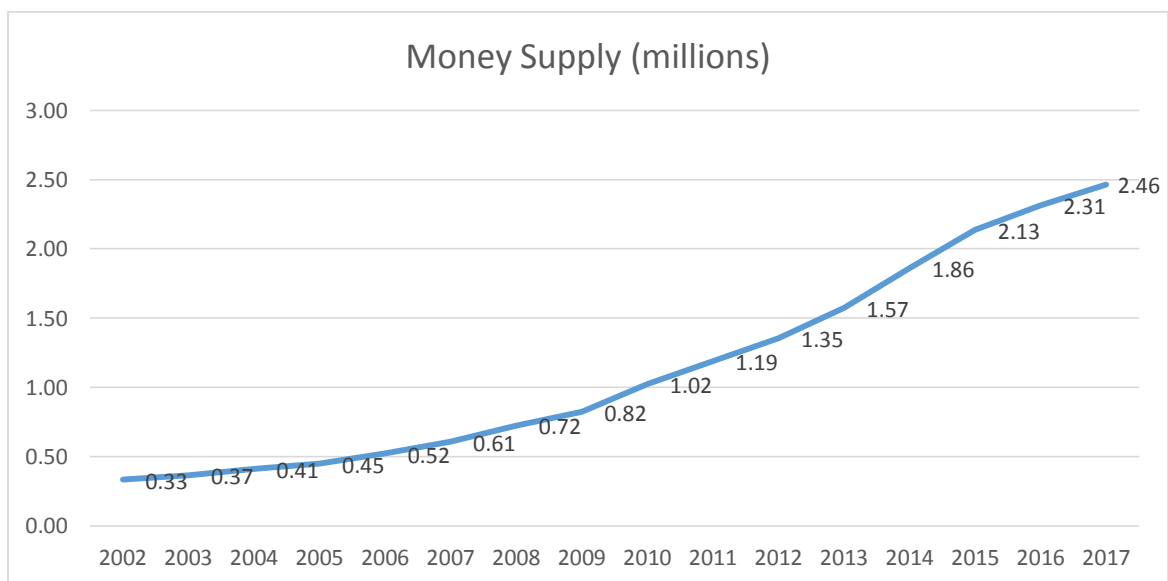

Figure 4.2: Money Supply (M2) trend analysis

4.2.2.3.Inflation

The results show that 2008 and 2011 reported the highest levels of inflation at 15.10% and 14.02%, respectively. The lowest inflation rates were reported in 2002 at 2.16%. For the most part, however, inflation has been highly volatile. With the exception of 2008, 2009, and 2011, inflation rates have been below the 16-year average of 7.593%.
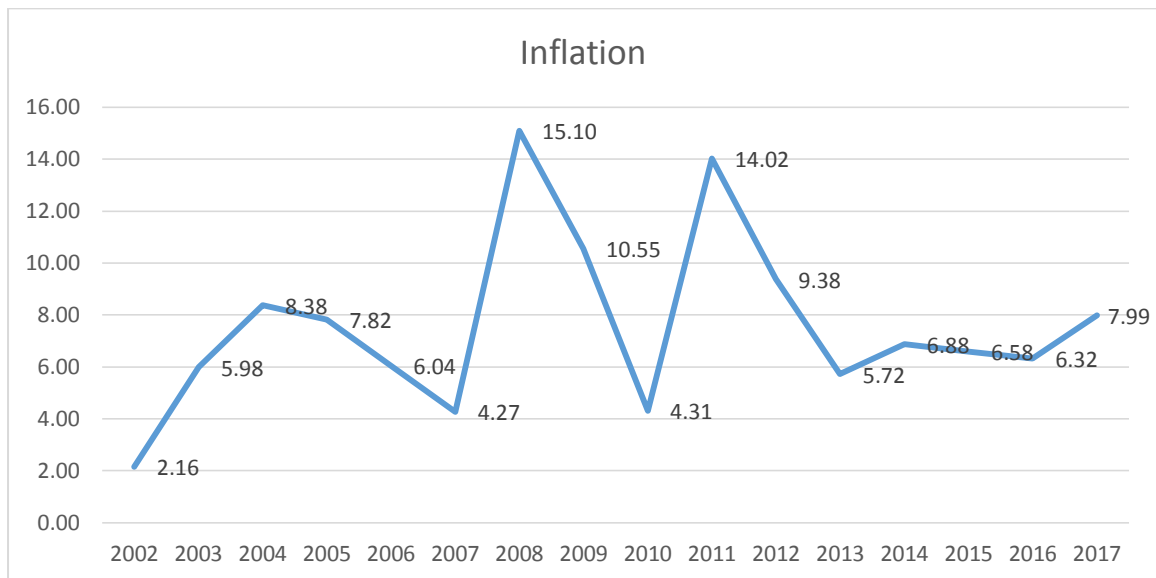
Figure 4.3: Inflation trend analysis

4.2.2.4.GDP Growth

The country maintained a steady GDP growth over the past five years of the Kibaki presidency, growing from 0.48% to 6.85% in 2007. The political crisis in 2007/2008 precipitated decline in economic activity, explaining the poor performance in 2008 (0.23%) and 2009 (3.31%), however, in 2010, the economy grew by 8.40%, the highest GDP growth rate recorded over the past 16 years. From 2011 to 2017, the GDP growth has averaged between 4% and 6%.
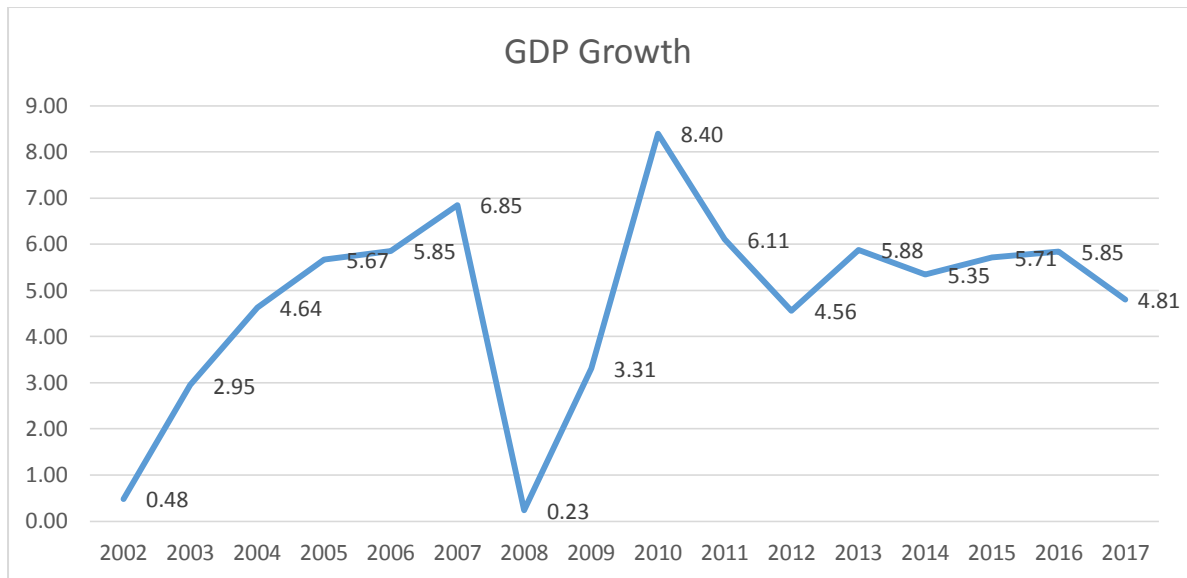
Figure 4.4: GDP trend analysis

4.2.2.5.NSE 20 Share Index

NSE 20 Share Index is a portfolio of stocks representing the entire stock market and is used in tracking the performance of NSE equities market. It is a price weight index calculated as a mean of a share of 20 listed at the NSE. The trend analysis indicates fluctuations in stock market performance over time. There was a steady growth in NSE 20 Share Index from 1362.42 in 2002 to a high of 5270.69 in 2007, followed by a drastic slump owing to the economic effects of the 2007/2008 post-election violence. While the index regained over the next decade, it has been characterized annual cycles of growth and decline, and at 3,554.12 in 2017, the index is at one of the lowest levels over the past 16 years, indicating poor stock market performance.
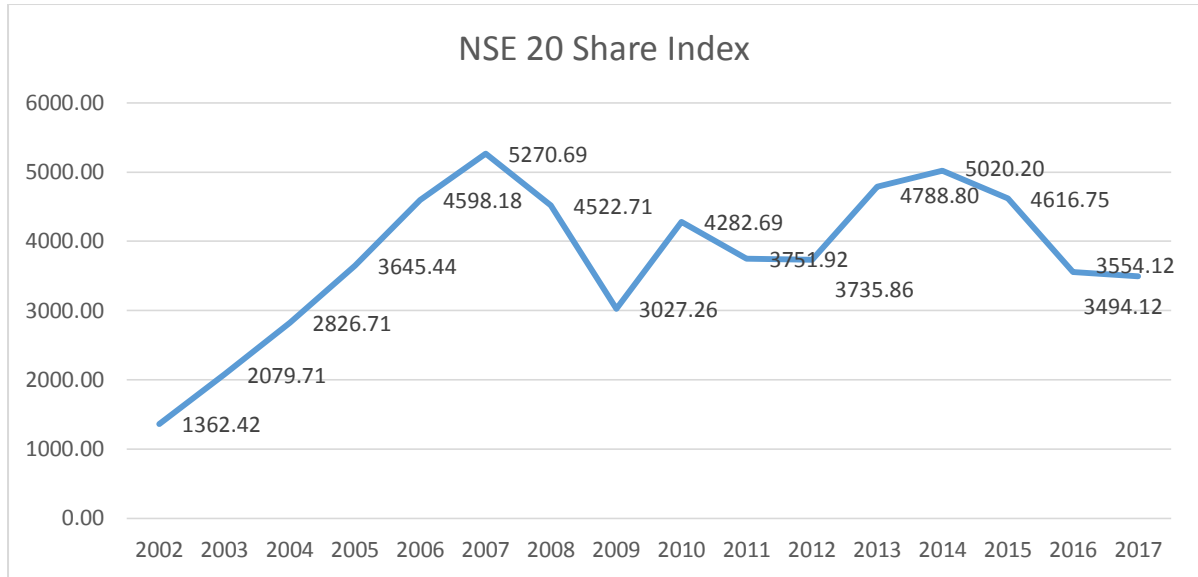
Figure 4.5: NSE 20 Share Index trend analysis

4.3. Correlation Analysis

Correlation analysis was used to establish the association between stock market returns and FDI inflows, coupled to the influence of macroeconomic control variables, notably: money supply, inflation, and GDP growth. Pearson correlation measures the strength and direction of association between two or more variables in the study. Technically, Pearson correlation coefficients can range from a perfect negative correlation (-1.0) to a perfect positive correlation (1.0). The closer coefficients get to -1.0 or +1.0, the stronger the correlation between the two variables.

The Pearson correlation tests show that there is a weak, positive association between FDI net inflows (as a percentage of GDP) with the growth in NSE 20 Share Index. The correlation was not statistically significant at 95% confidence level, ($r=0.235$, $p=0.062$). There was a strong positive and significant association between money supply and stock market returns ($r=0.960$, $p=0.000$), and between GDP and stock market returns ($r=0.365$, $p=0.003$) at 0.01 confidence level. On the contrary, there was a weak and negative

association between inflation and stock market returns (r=-0.132, p=0.299). However, the relationship was not significant.

These findings show that there is a positive association between the macroeconomic variables. FDI inflows, money supply, and GDP growth on stock market growth. FDI inflows has a positive correlation with stock market growth, but the association is weak. Money supply and GDP growth has a positive and significant correlation with stock market returns, indicating that an increase in economic productivity is correlated with an increase in the performance of equities at the Nairobi Securities Exchange. On the contrary, the inflation rate has a negative effect on stock market returns.

Table 4.3: Correlation Analysis

		NSE 20 share index returns	Foreign Direct Investment (as a % of GDP)	Money Supply	Inflation	Gross Domestic Product
Foreign Direct Investment (as a % of GDP)	Pearson Correlation	.235	1			
	Sig. (2-tailed)	.062				
	N	64	64			
Money Supply	Pearson Correlation	.960**	.226	1		
	Sig. (2-tailed)	.000	.073			
	N	64	64	64		
Inflation	Pearson Correlation	-.132	-.118	-.212	1	
	Sig. (2-tailed)	.299	.352	.092		
	N	64	64	64	64	
Gross Domestic Product	Pearson Correlation	.363**	.339**	.284*	-.007	1
	Sig. (2-tailed)	.003	.006	.023	.959	
	N	64	64	64	64	64

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.4. Regression Analysis

The study investigated the relationship between FDI inflows and stock market returns by regressing the outcome variable; NSE 20 Share index, against the predictor variable; FDI net inflows as a percentage of GDP, under three control variables; money supply, inflation, and GDP growth. The model summary presented in Table 4.3 shows that when NSE 20 share index is regressed against FDI inflows, the R square was 0.055. This indicates that FDI inflows accounts for a 5.5% deviation in NSE 20 share index at the Nairobi Securities Exchange over the 2002-2017 test period. However, incorporating the control variables; money supply, inflation, and GDP growth in the regression model, yields R Square value of 0.415. This indicates that the addition of the three control variables changes the rate at which predictor variables influence variations in NSE 20 share index from 12.2% to 41.5%, which represents a significant change in prediction.

Essentially, Model 1 incorporates NSE 20 share index as the outcome/dependent variable and FDI inflows as the predictor/independent variable, while Model 2, incorporates the additional control variables into the regression model predicting the relationship between FDI and stock market returns under the influence of other existing macroeconomic factors. In other words, while FDI inflows exert an influence on stock market growth, it does not do this in isolation, as its effects are greater when other macroeconomic indicators are taken into consideration. Therefore, FDI accounts for a 5.5% deviation in NSE 20 Share index. In the presence of money supply, inflation and GDP growth, the deviation increases to 93.4%. As the R value shows, $r=0.934$. This is a strong correlation.

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.235[a]	.055	.040	1345.1670
2	.967[b]	.934	.930	363.1997

a. Predictors: (Constant), Foreign Direct Investment (as a % of GDP)
b. Predictors: (Constant), Foreign Direct Investment (as a % of GDP), Inflation, Money Supply, Gross Domestic Product

Analysis of Variance (ANOVA) tests are used to establish how well the regression model fits the data, in other words, how well the regression model predicts the dependent variable. Table 4.4 shows that the independent variable do not statistically predict the dependent variable, as presented in Model 1 when control variables are not added, $F(1,62) =3.623$, $p=0.062$, and Model 2 when control variables are added, $F(4,59)=210.289$, $p=0.000$. This shows that the model of the study is statistically significant, in other words, the independent variables are strong predictors of the dependent variable.

Table 4.5: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6555999.586	1	6555999.586	3.623	.062[b]
	Residual	112187398.850	62	1809474.175		
	Total	118743398.436	63			
2	Regression	110960470.051	4	27740117.513	210.289	.000[c]
	Residual	7782928.385	59	131914.040		
	Total	118743398.436	63			

a. Dependent Variable: NSE 20 share index returns
b. Predictors: (Constant), Foreign Direct Investment (as a % of GDP)
c. Predictors: (Constant), Foreign Direct Investment (as a % of GDP), Inflation, Money Supply, Gross Domestic Product

The researcher used t-test to determine the significance of individual variables on stock market returns at the NSE. The p-values under Sig. column indicate the significance between independent variables and control variables on the dependent variable. At a 95%

confidence level, if the p-value is less than 0.05, then the relationship is statistically significant. However, if the value is above 0.05, then the relationship is not statistically significant at 95% confidence level. Additionally, beta coefficients can either be positive or negative. T-tests assess whether beta coefficients are significantly different from zero. A positive beta coefficient shows that for every 1-unit increase in the independent variable, the dependent variable increases by the beta coefficient value.

The study results show that in the absence of the control variables, the relationship between FDI net inflows and NSE 20 share index is not statistically significant, *p*=0.062. The inclusion of control variables changes the effect of FDI on stock market returns. The results show that adding money supply, inflation, and GDP in the model, changes the relationship of FDI inflows and NSE 20 share index. The relationship is not significant even when controlled by the macroeconomic variables. While FDI is a weak but positive predictor of stock market returns, at p=0.928, the control variables are stronger predictors of NSE 20 share index growth. There is a positive and significant relationship between inflation (p=0.047), GDP (p=0.000), money supply (p=0.011), as presented in Table 4.6.

Table 4.6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,916.733	251.382		11.603	.000
	Foreign Direct Investment (as a % of GDP)	643.420	338.027	.235	1.903	.062
2	(Constant)	-3,922.326	277.085		-14.156	.000
	Foreign Direct Investment (as a % of GDP)	-8.982	98.474	-.003	-.091	.928
	Inflation (%)	21.080	10.408	.070	2.025	.047
	Money Supply (M2)	.015	.001	.948	26.415	.000
	Gross Domestic Product (%)	54.696	20.856	.096	2.623	.011

a. Dependent Variable: NSE 20 share index returns

The model specified for the study was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Therefore, the equation can be represented as:

Stock market returns = -3,922.326 + (-8.982) FDI/GDP + 21.080 (CPI) + 0.015 (M2) +

54.696 (GDP)

4.5. Discussion of Research Findings

Foreign direct investment is a powerful tool for economic growth and developed. Developing countries need foreign capital to supplement domestic investments to stimulate economic growth (Kinyua, 2014). Since developing countries predominantly export raw materials to developed countries, who then transform these raw material exports to finished products and export them back to developed countries, examinations under the foreign direct investment dependency theory have established that cycle means that developing countries can never get superior earnings from their exports. The nature

of this cycle offers a background into studies that have showed that FDI inflows are negatively associated with stock market returns (Onyinyechi & Ekwe, 2016). On the contrary, other studies using the internationalization theory state that due to capital limitations in the domestic markets of developing countries, foreign capital offers fuel for growth (Paskal & Chombo, 2009). It is important to note that foreign direct investment involves ownership of at least 10% equity in business enterprise by a foreign entity (Mbithe, 2016), hence analysis of listed companies offers an insight into how variations in FDI inflows influence overall market performance, since stock market returns play a significant role in the economy (Wu, 2006). A study by Adam and Tweneboah (2009) found out that there is a long run relationship between FDI and stock market returns in Ghana.

This study shows that there is a positive association between FDI inflows and stock market returns; however, the relationship is not statistically significant. There are other studies that have also showed a positive a positive association between FDI and returns of stocks. Increase in FDI brings with it improved technology in production, which increases production and GDP. According to Onyinyechi and Ekwe (2016) the relationship between FDI and stock market returns operates through three main mechanisms. The first is that FDI enhances domestic capital flow, and secondly that increased availability of funds in the economy increases economic investment, and third that, FDI leads to the investment on companies listed in the stock exchanges. Wu (2006) notes that the FDI investment in the stock exchange is associated with the firm's greater adoption of local rules and regulations and hence becoming market friendly.

Further, the study establishes that there is a positive association between money supply, inflation, and GDP growth and stock market returns. However, in all these cases, the relationships were not statistically significant. In terms of money supply, Pascal and

Chombo (2009) notes that on one hand, diverse changes in money supply leads to a need amongst the investors to readjust their portfolios in the market to represent their interests and these new portfolios are associated with price changes in the held assets in the portfolios. On the other hand, according to the efficient market hypothesis, there is a positive correlation between money supply and demand of shares, and this leads to increase in stock prices. Inflation causes a significant increase in money supply and this has an effect on price increase. There are other studies that show that there is negative correlation between inflation and stock market returns (Assaf & Wuorio, 2016).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1.Introduction

The chapter presents a summary of research findings, conclusions of the study, and recommendations drawn from the research findings. The section also discusses the limitations and suggestions for future study.

5.2.Summary of Findings

The study sought to establish the relationship between FDI inflows and stock market returns, as measured using the NSE 20 Share Index, from 2002 to 2017. The study incorporated money supply, inflation, and GDP growth. The descriptive findings show that FDI inflows have consistently declined since 2011. On the other hand, money supply has consistently increased for all the years covered in the study. On the other hand, inflation has been highly volatile over the 16-year period. GDP growth has averaged between four and six percent over the past 10 years. Finally, NSE 20 Share index analysis indicates fluctuations in stock performance, with volatilities observed annually. Over the past 10 years, the findings indicate poor stock performance.

Correlation analysis show that FDI has a weak but positive association with stock market returns. The same observation was made for the association between inflation and stock market performance, as well as money supply. However, the findings show a strong, positive, and statistically significant association between GDP and stock market returns.

Regression analysis indicate there is a positive and insignificant relationship between FDI net inflows and NSE 20 share index growth. R Square value shows that FDI is a weak predictor of stock market returns. The findings show that, taking the money supply,

inflation, and GDP into account, FDI has a positive effect on stock market returns; however, the relationship is not statistically significant.

5.3. Conclusion

The researcher set out to determine the relationship between FDI net inflows as a percentage of GDP and NSE 20 share index, over the 2002 to 2017 period. The descriptive findings demonstrate that FDI inflows have greatly fluctuated over the past 15 years. In the same vein, NSE 20 Share index analysis indicates fluctuations in stock performance, with volatilities observed annually, with observed decline in stock performance over time. The regression analysis indicate there is a positive and insignificant relationship between FDI net inflows and NSE 20 share index growth.

5.4. Recommendations

The descriptive statistics also show that stock market performance has been volatile over the past ten years. While the regression results show that FDI inflows have a positive influence on stock market returns, the findings, as observed from beta values, also show that the predictors included in the control variables, have a greater influence on NSE 20 share index when compared to FDI. As a result, there is need for greater focus on fiscal and monetary policies governing money supply and inflation even as economic policies that targeted increased economic growth, and subsequently, increased FDI inflows are being implemented.

The descriptive statistics show that there has been a consistent decline in FDI net inflows, as a percentage of GDP. There are various strategies for attracting FDI that the country can adopt. Some of these strategies include reducing restrictions on FDI by increasing the ease of doing business, enhancing the capacity of Investment Promotion Authorities to

target foreign investors and link them with domestic economy, quality infrastructural development, and providing access to investment finance in the domestic market. Tailored policies have the potential of overcoming market imperfections and promoting the integration of domestic and foreign firms into global networks hence increasing their ability to attract foreign capital.

5.5. Limitations of the Study

There are various factors that affect stock market returns. These factors include economic aspects such as interest rates, inflation, money supply, economic growth, and unemployment; political instability; natural and man-made disasters; and market psychology, among others. This study has only focused on economic factors: FDI, inflation, money supply, and GDP. As a result, the study does not capture the effect of political events, natural disasters, or investor behaviours in influencing stock market returns and development.

The study uses multiple regression to determine the relationship between the independent and dependent variable. While multiple regression offers the researcher the power to establish the degree of influence of FDI on stock market returns, in the presence of incomplete data multiple regressions can lead to inconclusive findings. This study relied on data covering the period 2002 to 2017, that is, 16 years in total. Longer durations may yield different findings.

The study established that the influence of the control variables such as GDP, on stock market returns were stronger than FDI. Additionally, the study does not demonstrate statistical significance, hence other macroeconomic indicators should be tested to establish the most significant factors that influence stock market returns.

5.6.Suggestions for Further Research

Further studies can incorporate additional variables in the model. First, such studies should include all the macroeconomic variables as predictor variables, as opposed to the current study where only FDI inflows as a percentage of GDP has been included as the dependent variable. Second, additional studies can examine the effect of the political environment on stock market returns, as well as the influence of investor decisions on market behavior and returns in the long run.

Further studies can also use other complex statistical analyses such as time-series analyses to establish the long run relationship between FDI and stock market returns. Time series analysis allows for the decomposition of data to establish long term direction, seasonal movements, cyclical movements, and irregular fluctuations.

Finally, owing to the strengths of relationships between stock market returns and the macroeconomic variables, the model needs to be reconfigured to include some or all the macroeconomic variables as independent variables, and incorporating other factors such as political regime as the control variable.

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APPENDICES

APPENDIX 1: SECONDARY DATA

Year	Inflation(%)	Money Supply(Ksh)	Gross Domestic Product(%)	Foreign Direct Investment	NSE 20 share index returns
2002-Q1	1.2	319,248.7	2.1	0.2	1,279.4
-Q2	1.8	327,608.2	0.2	0.2	1,095.7
-Q3	1.9	335,948.8	-2.5	0.2	1,061.2
-Q4	2.9	344,656.3	0.5	0.2	1,213.4
2003-Q1	2.2	330,214.3	-0.5	0.5	1,084.8
-Q2	1.8	337,563.9	0.4	0.5	1,067.7
-Q3	4.4	348,896.2	6.5	0.5	1,344.9
-Q4	9.7	351,432.1	5.2	0.5	1,670.7
2004-Q1	2.1	339,696.0	7.0	0.3	1,107.0
Q2	6.0	350,879.8	5.0	0.3	1,477.1
Q3	12.2	352,250.8	3.2	0.3	1,843.0
Q4	11.0	367,628.7	5.3	0.3	2,015.8
2005-Q1	8.0	351,544.0	1.9	0.1	1,558.9
Q2	13.4	355,533.5	7.2	0.1	1,951.9
Q3	9.0	370,208.8	8.3	0.1	2,164.1
Q4	8.8	386,623.6	5.9	0.1	2,643.9
2006-Q1	13.2	362,052.7	6.0	0.2	2,004.9
Q2	8.4	373,262.4	6.2	0.2	2,314.9

Q3	8.8	391,779.7	8.2	0.2	2,877.5
Q4	8.6	395,029.5	4.9	0.2	2,884.5
2007-Q1	8.6	378,363.3	7.1	2.3	2,524.7
Q2	9.1	393,625.7	8.3	2.3	3,023.6
Q3	6.8	398,774.9	6.3	2.3	2,722.4
Q4	10.1	412,304.9	6.4	2.3	2,685.2
2008-Q1	9.1	393,516.3	1.1	0.3	3,034.6
Q2	6.1	402,946.3	2.2	0.3	2,678.8
Q3	14.4	415,522.4	2.6	0.3	2,695.5
Q4	17.6	426,402.1	0.2	0.3	2,897.9
2009-Q1	6.4	407250.7	6.2	0.3	2,679.0
Q2	17.7	419,186.6	1.9	0.3	2,736.1
Q3	16.5	428,262.2	1.9	0.3	2,985.4
Q4	14.7	433,020.1	1.2	0.3	3,181.8
2010-Q1	18.2	421,197.9	1.4	0.5	2,806.2
Q2	15.3	430,029.7	6.1	0.5	3,076.5
Q3	15.0	435,932.0	7.2	0.5	3,286.4
Q4	10.2	446,858.6	8.9	0.5	3,964.3
2011-Q1	14.3	430,811.9	4.8	0.3	3,136.7
Q2	14.2	438,428.3	3.5	0.3	3,568.4
Q3	7.6	450,647.8	4.0	0.3	3,917.8

Q4	4.4	469,715.2	5.1	0.3	3,958.9
2012-Q1	12.8	441,717.9	4.1	0.3	3,819.8
Q2	5.0	456,886.4	4.4	0.3	3,892.5
Q3	5.9	474,420.1	4.5	0.3	4,047.5
Q4	7.4	495,386.0	5.1	0.3	4,057.3
2013-Q1	4.2	462,677.6	6.1	0.7	3,912.1
Q2	7.3	479,043.6	7.5	0.7	4,063.3
Q3	5.7	504,385.6	6.4	0.7	4,158.9
Q4	4.3	528,513.1	3.5	0.7	4,342.8
2014-Q1	8.4	484,956.7	5.2	0.7	4,106.2
Q2	4.3	514,171.7	6.0	0.7	4,211.8
Q3	4.9	533,743.0	4.6	0.7	4,549.6
Q4	6.6	551,037.0	5.6	0.7	5,525.1
2015-Q1	4.0	521,850.9	5.7	0.6	4,290.3
Q2	5.6	538,214.6	5.6	0.6	4,900.9
Q3	6.0	554,748.7	6.1	0.8	5,710.5
Q4	2.5	572,936.1	5.5	0.9	5,240.1
2016-Q1	6.1	545,624.8	5.3	0.6	5,270.2
Q2	5.0	557,147.8	6.2	0.6	5,634.5
Q3	2.1	581,439.6	5.7	0.6	5,,111.6
Q4	4.9	615,758.2	6.3	0.6	5,286.2

2017-Q1	3.4	564,605.7	4.7	0.9	5,463.9
Q2	2.7	591,195.9	4.7	0.9	5,116.0
Q3	5.3	624,288.7	4.7	0.9	5,286.1
Q4	5.6	649,189.3	5.4	0.9	5,216.8