THE RELATIONSHIP BETWEEN EXCHANGE RATES VOLATILITY AND FOREIGN DIRECT INVESTMENTS IN KENYA

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DECLARATION

I declare that this research proposal is my original work and has never been submitted elsewhere for the award of a degree or diploma at the University of Nairobi or any other educational institution.

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This research project has been submitted for examination with my approval as the university supervisor

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ACKNOWLEDGEMENT

DEDICATION

This work is dedicated to my husband Machel Samora and my dear son Aston Nyamongo

for their great support and prayers

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ABBREVIATIONS

CBK   Central Bank of Kenya

FDI   Foreign Direct Investment

GDP   Gross Domestic Product

KNBS   Kenya National Bureau of Statistics

OEDC   Organization for Economic Corporation and Development

OTC   Over the Counter

PPP   Purchasing Power Parity

SPSS   Statistical Package for Social Science

ABSTRACT

Kenya is a developing country which is in dire need of foreign investment to stimulate the domestic economy, seek new technology and create job opportunities for its continuously growing population. This study sort to, establish the relationship between foreign direct investment and exchange rate volatility in Kenya. Secondary data required for the analysis was collected from the Central Bank of Kenya and the National Bureau of Statistics. The study findings showed a weak positive relationship between foreign direct investment and exchange rate. The study findings showed that 22.5% of the variations in FDI were explained by changes in exchange rate. The study recommended that there is a need for policymakers to minimize the exchange rate volatility through proper planning and well regulated foreign exchange market. The study further recommended an emphasis on price stability since this was also found to have an influence on foreign investment.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Foreign Direct Investment not only offers countries with much-needed resources for domestic investment but also creates job opportunities, help transfer managerial expertise and technology all contributing to the advancement of the economy. Most governments have appreciated the critical role the FDI plays and have established various ways of attracting it. In theoretical literature, the purpose of FDI is that of a carrier of foreign technology that can promote economic growth (Jones, 1995). The most outstanding motivation of FDI has been resource seeking (Dunning, 1993). Economists consider FDI as an essential component of economic progression. The need for better economies, technological advancement, economic growth, poverty eradication and better standards of living has seen Africa's nations endeavor to get Foreign Direct Investments pumped into their economies to help accomplish these (Mishkin & Eakins, 2009).

Foreign direct investment provides capital inflows to the host country. The inflows are used to improve the infrastructure, create job openings for the citizens and cause an upsurge in reserves. Participation of international subsidiaries creates a competitive environment for local businesses. This in turn improves the efficacy with which goods are produced (UNCTAD, 2002). Then again, the macroeconomic conditions in the recipient country must be attractive to foreign investors, and one of the major factors of the operational monetary policy regime are exchange rates of its currency against other foreign currencies. Kenya adopted a liberalized exchange rate system in the early 1990s,

though this has done little to increase the FDI inflows. The exchange rate has been unstable over the free regime with fluctuations pitting the shilling at historical highs and lows against foreign currencies (Obondi, 2013).

Kenya like many other developing countries can count foreign direct investments as one of the key agents responsible for its economic growth. Foreign direct investment is important to a developing economy if it can effectively absorb its spill-over effects. Ryan (2006) defines FDI as 10% ownership interest in a legally recognized foreign entity. This investment involves real assets that are land, buildings or existing plants. Foreign Direct Investment remittances are the largest form of currencies in Kenya. These remittances totaled $1076.9 million in 2015 (CBK, 2015). The country relies heavily on the FDI for capital and employment, as is proven by the fact that the majority of banks in Kenya are owned by foreigners. FDI, therefore, is an integral part of the Kenyan economy.

1.1.1 Exchange Rate Volatility

The value of a given country's currency in terms of another country's currency is what is termed as exchange rate. Central Bank of Kenya has an obligation to compile indicative foreign exchange rates on a daily basis, hence enabling the general public to access and use it (Ndung'u, 2000). These rates are a compilation of daily buying and selling rates averages of main players in the forex market. These rates, therefore, provide an excellent forex pointer for any party who the value of the shilling catches their eye. Such rates are, however, only indicative to forex dealers including commercial bureaus and banks as well as individuals. Commercial bureaus and banks may, therefore, apply different rates in their daily transactions.

Like any other free market, demand and supply of forex transactions influence the rates applied. High competition among dealers may result in reasonable or competitive margins in forex transactions. Forex bureaus cater for the retail end in the forex transactions as per the license given to them. Bureaus therefore often provide favorable exchange rates to their customers compared to commercial banks regarding cash rates, but regarding larger amounts done via telegraphic transfers, commercial banks provide finer rates. These rates are however nominal; the real exchange rate is the actual exchange rate that investors are given in their transactions (Lothian &Taylor, 1997).

The Exchange rates are driven largely by market supply and demand. Using the floating exchange rate system the price of currencies is determined by supply and demand of the coin in the foreign exchange market. It equilibrates the foreign currency demand with foreign currency supply by varying the exchange rate and not the quantity of reserves. This enables the country to apply monetary policy with little concern on the consequences it has to the balance of payments. External jolts and disparities are reflected through exchange rate movements rather than reserve movements or the involvement of the Central Bank to monitor the variation activity (Ndungu, 2000).

1.1.2 Foreign Direct Investment

Foreign direct investment can be described as an investment made in a corporation by an interested party from another country for which the foreign investor has control over the acquired company. This transaction brings about a long term association between the host and home country investors. Since the foreign investor has a controlling interest in the

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purchased enterprise, his opinion on the operations of the company really matters. Typically, above ten percent acquisition of ordinary shares or voting powers of a company abroad is what is considered a direct investment (Olson, 2008). The long term relationship with the host country enterprise normally comprises the setting up of production tools, banking structures, warehouse chains, and establishments with a perpetual life abroad. It involves the incorporation of an entirely owned subsidiary, acquisiton of shares in a related business or through a merger. The investments can be incorporated or un-incorporated and ordinarily include possession of land and buildings by entities (Ismaila & Imoughele, 2010).

FDI includes the preliminary business deal instituting the foreign direct investment association between a home country investor and the host country investment company, as well as all successive dealings amongst them and related businesses. Therefore, this investment association goes further than the initial investor and involves foreign subsidiaries and partners of the direct investor that are a segment of the "parent group" (World Bank, 2011). After foreign direct investment is created, more venture capital can be injected to increase FDI. The undistributed earnings and interbusiness dues like delay of payment to service providers are part of FDI and can therefore be used to increase it. These operations focus on a single feature of funding accessible to investment firms that can expand their setups through domestic and intercontinental borrowing (World Bank, 2002).

Although FDI has several benefits for the host country, it does not fail to present a few undesirable features. For instance, in their quest to get the best out of their business venture, the foreign companies are more likely to overstretch the available resources (Ismaila & Imoughele, 2010). Climate change is another challenge that the host countries face. The business activities of foreign companies may pollute the environment which in turn has adverse consequences to the climate (Olson, 2008). Dumping and increased competition from multinational companies may drive local companies out of business. High wages offered by foreign companies lead to an increase in local wage cost. Tax evasion and overreliance by governments on FDI source countries, all these are possible implications of FDI.

1.1.3 Exchange rates Volatility and Foreign Direct Investment

FDI activity is stimulated by the behavior of exchange rates. On matters FDI, the levels and unpredictability of exchange rate are critical. The rates may determine the total inflows from FDI and how these funds are spent. When the value of one currency declines relative to another two possible repercussions can be observed. One is a reduction in the cost of production and labour. Second, the declining currency appeals to productive capacity investments. For these reasons a declining currency is assumed to provide a favourable rate of return for foreign investors.

The relationship between the levels of exchange rate and FDI depends on two fundamental cosiderations. First, the production costs variations across boarders ought to be associated with exchange rates changes. Hence these costs should not offset each other across borders. Second, the movements in the currency exchange rates should not be

foreseen less the rationale of relative wage is undermined. Therefore, the knock-on effect of exchange rate on FDI holds if the movement in the rates is unforeseen (Goldberg & Klein, 1998).

The practical relevance of the interest-parity type of caveat has been dismissed by some researchers. Countries have structured their financial markets differently. The aspect of capital market imperfection is crucial in ascertaining the speed with which investment returns are realized. According to Froot and Stein (1991) financiers suffer as a result of unavailability of relevant information about their investments. These inadequacies are due to the imperfect nature of financial markets. For this reason investors demand a return high enough to cover the extra cost they incur to keep track of their investments. Given a chance investors opt for private capital as a source of financing. This is because it increases the holdings of the parent company (Madura & Fox, 2011).

1.1.4 Exchange Rate Volatility and FDI in Kenya

In international transactions, country and currency risks are encountered. Country risk occur when financial claims and business contracts become unenforceable, while currency risks occur when the values of currencies increase or decrease relative to each other. Foreign exchange markets developed to enable conversion of cash to different currencies (Kidwell et al., 2008).There is no physical location for the foreign exchange market in Kenya as no physical goods are being exchanged at any given time, rather it is an over the counter market, a linkage of bank currency traders. Mishkin and Eakins (2009) define a foreign exchange market as a place of trading of currency and bank deposits. It involves the provision of credit on foreign trade, transfer of earnings between

the countries involved in the transaction and acts as a hedging platform for importers and exporters to evade losses that accrue from future variations of exchange rate (Eun & Resnick, 2009). These transactions ultimately fix the rate for which currencies are traded and will, in turn, readjust the purchase price of foreign goods.

Trading that occurs in the foreign exchange market will fix the rate an investor will trade his foreign currency to invest in Kenya. The Central Bank of Kenya Act, Cap 491, Section 28, provides that CBK may engage in foreign exchange transactions with public entities, central banks of other countries international financial institutions and any other person or body of persons who may be gazetted for that purpose.

FDI in Kenya is covered in all the sectors be it in the banking, automobile or telecommunications industry. Various multinational companies have set up operations in Kenya, and they include Car and General, Coca-Cola as well as communication firms like Airtel. In every aspect of our lives, FDI is felt, that is on the goods and services that we use. FDI is not in isolation as it provides jobs and technical knowledge as they train their Kenyan employees to maintain the standards that are there in their other investments all over the world. They are the primary source of foreign exchange to the country. FDI has not been consistent over the years with some periods recording low inflows. Between 1980 and 1990, FDI inflow was low due to deterioration in economic performance. Rising problems of poor infrastructure as well as high cost of living greatly impacted negatively on FDI inflows in Kenya (KPMG, 2012).In total, Kenya has more than 200 multinational companies across the sectors with Britain, USA, Germany, South Africa,

Netherlands, Switzerland, China, and India being the main traditional sources of FDI (Kinuthia, 2010).

Kenya serves as the East African business hub for many international firms. This translates to a dependence of FDI for capital inflow that in turn reflects on the provision of jobs and an economy that is helped to grow by these foreign investments. On average, the FDI growth for Kenya between the year 2007 and 2015 was forty percent (40%). These inflows mainly from India, USA and the United Kingdom went to the telecommunication industry, mining and consumer products (Ernest & Young, 2015). In 2015, FDI inflows stood at $1076.9 million (KES 105.29 billion), up from $670 million (KES 65.51 billion) a year earlier which is a sixty percent (60%) increase. This capital mainly went to oil, gas and the manufacturing industries (UNCTAD, 2015).

1.2 Research Problem

The government should regulate its expenditure and impose taxes in such a way as to stabilize the economy. Currency quotation is among the critical elements for managing the economy (Were, 2001). In making FDI decisions the currency quotations are evaluated (Musau, 2011). As reported by Were (2001) a rise in net external influxes is strongly related to better currency quotations. Erratic variations in the economy are the major drivers of changes in exchange rates.

A fall in the value of a country's exchange rate has both a positive and negative impact to foreign stakeholders. By its nature, a weakening exchange rate may raise exports in addition benefit from multinational enterprises whose main goal is to acquire specific types of resources that are unavailable at home or whose cost is lower in the host country

than in home country. On the other hand, when a currency weakens the foreign investors suffer a loss that results from the conversion of either a payment or receipt against the weak currency. A loss could also be realized if the values of assets and obligations are to be translated to the currency of investors. Therefore, an assessment on whether to invest has to be done especially if the investors predict a persistent decrease in the value of a currency of the target country. In consonance to Froot and Stein (1991) financiers have varied responses to the loss of value of a country's currency. In the 1980s the US Dollar appreciated but still minimal FDI was injected into the state. For this reason, a conclusion cannot be made with certainty on how a weak currency affects the FDI inflows.

A number of global studies have denied the likelihood of any association of foreign acquisitions with exchange rates movements. The common confutation remarks that the current state of the world is such that capital can be transferred freely. Therefore, the expected risk-adjusted earnings on all global assets will be leveled (Froot and Stein, 1991). Other studies however indicate that real effective exchange rate movement adversely influence FDI as it yields uncertainty leading to increased variance of expected returns and fall in the net present values of the investment.Ogunleye (2008) found out that exchange rate volatility retards FDI inflows in Nigeria and establishes endogeneity of exchange rate in the relationship, Cushman (1988) found a positive relationship between US foreign direct investment and exchange rate uncertainty. Bénassy-Quéré et al., (2001) found a negative impact of exchange rate volatility and OECD outward FDI.

In Kenya, a number of researches have been conducted aimed at establishing the causal correlation between stocks and economic variables (Nyamute, 1998; Sifunjo, 1999). There have been a few other efforts at studying FDI without bias on any causal relationship. Otieno (2012), studied locational determinants of FDI in Kenya, she found that FDI has a longstanding relationship with exchange rate, direct taxes, GDP, fixed capital formation and openness of the economy. Kinuthia (2010) notes in his literature review that a negative correlation exists between foreign direct investment flows into an economy and the currency quotation. The Kenyan venture market experiences obscurity because of frequent movements of inflation rates and currency quotation. Forecasting of these variables becomes an uphill task to investors and hence adversely influences their judgment. This indefiniteness denotes that prospective global businesses are indeed susceptible to currency quotation risk if they engage in Kenyan businesses. Hence the call for answering the question: what is the relationship between exchange rate volatility and foreign direct investment in Kenya?

1.3 Research Objective

The objective of this research study was to establish the relationship between the exchange rate volatility and Foreign Direct Investment in Kenya.

1.4 Value of the study

The findings are hoped to be of benefit to policy makers in developing investment strategy policies and developing the necessary institutional framework required to market Kenya as an ideal foreign investment destination. Also, it will help them in coming up with monetary policies that ensure exchange rate stability thus protecting the profit margins and net present values of current and potential investors.

The government also stands to benefit from this study as it would be able to understand the factors underlying the dismal performance in the FDI sector specifically exchange rate volatility. This indeed would help it come up with marketing strategies especially under the brand Kenya initiative to actively market the country as the FDI destination of choice while addressing the factors that would curtail this good initiative i.e. exchange rate volatility. It will also try to contain the political situation in the country which has for a long time impacted negatively on the exchange rates and by extension FDI inflows into the country.

The findings of the study will as well be instrumental to researchers as it will be a reference source to them. It can be used as a basis of exploring more research ideas on FDI.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter is divided into five sections; the sections will cover the theories in the study, the determinants of foreign direct investment, the empirical studies, the conceptual framework and the summary of the theoretical and empirical reviews respectively.

2.2 Theories on Exchange Rates Volatility

This section presents theories that are relevant in explaining the association existing between exchange rate fluctuations and foreign direct investment in Kenya. Three theories have been reviewed, which are: The Eclectic Paradigm; The theory of exchange rates on imperfect capital markets and the Purchasing Power Parity Theory.

2.2.1 The Eclectic Paradigm

Professor Dunning (1995) came up with this theory which is in itself a mix of three different but correlated theories. These theories are Ownership, Location and Internalization (OLI) which are used to describe how the factors therein contribute to changes in foreign direct investments. Ownership related advantages are those provided by intangible assets. This assets must however be considered as exclusive possessions held and owned by the company and are transferable to other firms at prices that would lead to reduction of costs to the company, or would lead to the company registering high rates of return. In his arguments, Dunning (2005) argues that when all other factors are held constant, a company with a higher level of competitive advantages, in comparison with its competitors, has a higher chance in increasing its overall production and hence increasing its global presence.

Location benefits, as explained by Denisia (2010) are used to compare the different economies, as per their strengths and opportunity. The end results of this analysis is that the most suitable country is selected to be a host country for the activities of multinational firms. The correlation existing between location and ownership advantages is that when a multinational corporation is able to host itself in the most suitable economy, it is now able to engage in the exploitation of its ownership related abilities, and thus leading to the firm engaging in foreign direct investment.

The third theory, internalization, establishes a need for the firm to be able to have an established business in each of the economies that the company sells its products or services. The firm must derive ways through which it can benefit further through foreign production as compared to the meager fees that are earned in international trade activities such as exporting and franchising. Dunning (2005) states that a corporation is more likely to get higher returns if, it engages in foreign production as opposed to the extension of its production rights to other countries. The eclectic paradigm is therefore in support of the establishment of production markets by a corporation through exploitation of its competitive advantages and the selection of suitable locations. In doing this, the corporations are not only engaging in foreign direct invetments but also gaining much more than their competitors.

2.2.2 The Theory of Exchange Rates on Imperfect Capital Markets

Cushman (1985) and Itigaki (1981) are some of the researchers whose studies can be related to this theory. Itigaki (1981) in his model, found out that the depreciation of the domestic currency led to higher demands for the adoption of a different design when

coming up with the end products. Cushman (1985) observed that exchange rate uncertainties were a function of timing differences. Therefore, corporations engaging in international business required an incentive above their expected gains to compensate the uncertainties relating to changes in exchange rates.

Transnational firms will only have the incentive to invest in a particular country if such investments are profitable to them. This implies that their cost of capital needs to be more than the expected returns. Uncertainty related to macroeconomic variables such as exchange rates, inflation and economic stability of foreign countries will be very key in the computation of a corporation's cost of capital. It is to be expected that the cost of capital will be low if such variables are not so volatile as to make them substantially risky. When exchange rates are adjusted to reflect risks relating to uncertainties, the capital costs of the corporation decreases, thus leading to an increase in the level of investments directed to foreign economies (Cushman, 1985).

2.2.3 Theory of Purchasing Power Parity (PPP)

The purchasing power parity theory was first established by a Swedish economist, Cassel, in 1918. Cassel developed this theory when he was trying to investigate the currencies of different economies, and how they were correlated. The theory thus explains the prices of goods and services in different economies, and how this prices are affected by the translation rates of the different currencies. Therefore, if a unit of a currency in one economy is to have similar purchasing power with a different currency of a different economy, then the translation rates of these two currencies ought to be the same as the ratio of the price levels in the two economies. A similar amount of money that is able to buy a specific combination of services or goods in one economy should also be able to

buy the same combination of services and goods in a different economy (Sarno & Taylor, 2002). When using this theory, one is able to compute the value of the currencies of different economy, and estimate the required adjustments that could be made to the translation rates of different currencies of the economies under investigation, so as to have the translation rates being equal to the purchasing power of the economies (Mishkin & Eakins, 2009). The theory borrows heavily from the law of one price and would hold when there is international goods arbitrage.

Purchasing power parity could be absolute or relative. When the purchasing power of the local currency is the same as that of the currency being used by another economy transalted using the prevailing market rates, then the form of PPP is absolute. However, for relative PPP, changes in exchange rates are compared to inflation changes. If the percentage change in the translation rates of two currencies counterpoises the change that occurred in the rate of inflation of the two economies in a specific period of time, this is relative purchasing power parity (Sarno & Taylor, 2002).

The purchasing power parity theory, however, has inherent limitations due to the assumptions it is built around. It assumes that transportation costs are negligible, abstraction of taxes and tariffs, consumption baskets are identical, no arbitrage profits. It also assumes that the expenses of goods remain the same across borders that all traders have the same amount of information regarding prices and exchange rates across all the countries and that firms would price their goods the same way across all the markets. Perfect markets seldom exist in real world, and thus it would be hard for these

assumptions to hold. However, significant these assumptions are, they are still not compelling enough to discard the theory (Froot & Stein, 1991).

According to Kidwell et al., (2008), the rates of translating currencies flow towards a level that indicates the prices of goods and services are similar in different economies, while using the same currency. If this theory holds for exchange rates, all goods cost the same in the same coin in all countries. Therefore, there is no net saving from buying goods in one place rather than in another. The perfect mode of PPP lie in the notion that when the assumptions of PPP hold, a similar basket of goods from two economies will cost the same if the currencies were converted into one (Madura & Fox, 2011). The assumptions of PPP theory include; no tariffs, no transport costs, no trade barriers, no taxes, customers have perfect knowledge of the markets and thus will buy from markets offering the lowest prices, markets are perfectly competitive, among other assumptions. The cost of goods and services in an economy whose currency is not correctly valued will tend be different from the cost of the same goods and services as sold in a different economy. Thus, if the currency is undervalued, the prices will be lower as compared to other economies, but if the currency is overvalued, the goods will be sold at higher prices. This will lead to a distortion of the level of exports and imports unless trade barriers, transportation costs or the perishability of products makes it feasible for people to buy the same products in various places (Mishkin & Eakins, 2009).

Relative PPP relates to how the change in the currency of the economy can be matched to the change on the level of inflation in the same country. (Sarno & Taylor, 2002). This

means in effect that issues such as transportation costs, tariffs and quotas are taken into account. Relative PPP is more popular as compared to absolute PPP. However, PPP cannot be entirely depended upon when predicting or when developing models of determining the levels of exchange rates. This is because there has been a record of much non-conformity from the theory since its inception (Shapiro, 1992).

According to PPP theory, exchange rates movements are aimed at sustaining parity in purchasing power. Moreover, the movement in translation rates keeps the price indexes in the two economies at par. The unrealistic assumptions of this theory prevent it from explaining exchange rates and their movements. It would not make much sense to assume that all goods are alike, and that costs such as those of transport and of taxes are not present. Moreover, trade barriers cannot be eliminated from existence. Nonetheless, PPP theory cannot be completely ruled out. This is because the theory enables us to draw conclusions based on the very basic circumstances, before adding complexities to our models of exchange rate determination. However, if the assumptions of PPP were to hold, then the level of foreign direct investments would be determined by other factors other than exchange rates. This is because if markets were competitive, the returns earned when operations were opened in economies whose currencies are weak would not be substantial in translating these returns to the domestic currency and would cause a loss in value (Shapiro, 1992).

2.3 Determinants of Foreign Direct Investment

Although a considerable number of studies on determinants of FDI have been carried out, no harmony has been reached. The different approaches to the determinants of FDI do not replace each other but instead explain various aspects of the same phenomenon (Kinuthia, 2010).

2.3.1 Exchange Rates Movement

The exchange rate is an essential component affecting FDI. Asiedu (2002) was the first to propose the significance of exchange rates on the location of foreign direct investment. Asiedu argued that foreign direct investment would be spawned if there are distinct currency areas. According to Dunning more assessment of volatility in future exchange rates is done when one holds a higher share of equity capital in an investment (Dunning, 1993). Goldberg (2011) agrees that exchange rates volatility impact location decisions of MNEs. Other research indicates that exchange rate risk contributes significantly in explaining FDI (Gastanaga et al., 1998).

Exchange rate volatility may negatively affect and reduce direct investment. Gastanaga et al., (1998) based on an analysis of macroeconomic factors, institutional and legal frameworks and risk in determining FDI, proved that market size, fiscal deficit, inflation, and exchange regime and trade openness all were significant. According to earlier research, exchange rate movements have shown to be relevant and meaningful to FDI due to the direct contribution of exchange rate volatility on the unreliability of the repaying business strategy from the home states (Behera, 2008). The comparative currency prices of identically manufactured goods generated in various states are influenced by exchange rates.

2.3.2 Inflation

Provided that there is ambiguity, foreign investors will claim a high value as a measure of safeguarding themselves from inflation risks hence reducing the long run magnitude of capital outlay. A steady rate of inflation is a key factor in attracting foreign investment (Nwankwo, 2006). According to Kadongo (2011) the inability of macroeconomic policies to meet their intended purpose has contributed to the low FDI flows into Africa; he posits that, "Africa is perceived dicey for FDI due to unreliable monetary and fiscal policies that have contributed to the rise in the cost of production". Instability of Macroeconomic variables as evidenced by persistent increase in prices and severe shortfalls in budgets reduces the amount of FDI received by a given country (Kadongo, 2011).

Highly volatile inflation escalates the transaction prices which in turn have adverse consequences on the long-term intentions of investors; this decreases the current and impending gains (Muema, 2013). The less volatile inflation is, the more investors it attracts (Gastanaga et al., 1998). Low inflation is anticipated to have a positive relationship with FDI flows (Madura & Fox, 2011)

2.3.3 Economic Growth

The role played by economic development in attracting foreign direct investment has as well captured the attention of a number of scholars. Charkrabarti (2001) contends that the growth hypothesis developed by Lim (2001) maintains a rapidly growing economy providing relatively better opportunities for making profits than the ones growing slowly or not increasing at all. Mishkin and Eakins (2009) find a significantly positive effect of growth on FDI, while Gastanaga et al., (1998) obtains a strong support for the hypothesis over the period 1983 to 1986, but only a weak link from 1975 to 1978.

Basing on the same guidelines, Aoki (2007) reports a low positive correlation for the less developed economies and weak negative correlation for the developed countries. Asiedu (2002) finds a positive effect on lagged growth for the full sample and non-Sub-Saharan African countries, but the insignificant effect for the Sub-Saharan Africa sample. Gastanaga et al., (1998) found significant positive effects of growth on FDI.

2.4 Empirical Review

Alba, Wang, and Park (2005) conducted a study to determine how the translation rates of currencies caused changes, if any, to the flows of direct investments from other countries into the United States. A model that was used was the one that allowed the researchers to see how foreign direct investments depended on each other as time passed. The dependence of foreign direct investments over time was portrayed in a two state Markov process. These states were determined by assuming the various industries as either being desirable or undesirable environment for foreign direct investment. The researchers also used the unbalanced industry-level panel data that had been collected from the United States wholesale trade sector. This analysis yielded two main results. One, that foreign direct investment was interdependent over time. Secondly, it was discovered that exchange rates did have an effect that was both significant and involving, when the environment was suitable for foreign direct investment.

Udomkerdmongkol, Gorg and Morrissey (2006) analyzed panel data from sixteen economies for a period of twelve years when trying to determine the effect of currency translation rates on the flow of direct investments into the United States of America. The nominal bilateral exchange rate and the real effective exchange rate were used to capture

separate exchange rate effects. When the value of the nominal rate was high, it was assumed to mean that a currency of lesser price caused an increase in the level of foreign direct investments. As for the changes in the real rates, their increase were interpreted that there was an expectation of the depreciation of the currency, and this seemed to discourage foreign investors from investing in the country. The appreciation was expected if the real rate was decreasing and by this, foreign direct investments were expected to increase. 'Chakrabati and Scholnick' hypothesis was sustained in this study. It states that when all other factors affecting foreign direct investments are held constant, the appreciation of a currency will lead to decreased levels of FDI.

Weeks and Mungule (2013) investigated and concluded that the level of Foreign Direct Investment amongst the first world and developing countries is partly impacted by the exchange rate and institutional instability. They did so by presenting an empirical investigation on a panel of countries over two decades, both with cross country and cross sector data, justified by a partial equilibrium model of remote entry. The issue was first presented with a partial equilibrium model of FDI in an oligopolistic industry, where same foreign firms had to decide whether to enter a host market characterized by exchange rate volatility and political risk. The results were that both exchange rate variability and political risk had a dampening effect on FDI flows and that the interaction term was negative, indicating that the two effects reinforced each other. The econometric analysis confirmed and verified the results. The sectoral evidence pointed in the direction of particular industry effects, especially about the purpose of interest rates and wages. The overall conclusion concerning the role of exchange rate instability and institutional risk were verified, with some requirements for the primary, financial, depository, trade

and service.

Mwenda (2012) provided the determinants of FDI and the Transfer of Technology by Information Technology MNCs in Kenya as being market availability,political stability, the absence of maximum retail price, a stable and growing economy, the availability of human resources and the availability of a strategic infrastructure. The impediments to FDI, on the other hand, included delays in licenses and work permits, corruption, political instability and weak infrastructure.

Ullah, Haider, and Azim (2012) investigated the relationship of Foreign Direct Investment (FDI) with exchange rate and exchange rate volatility in Pakistan. Time series data over a 30 years period between 1980 and 2010 was collected. The variables of interest included exchange rate and its movements, inflation, FDI and trade openness. Unit root test, causality analysis, volatility and co-integration technique were used to analyze the data. According to the findings FDI had a positive relationship with Rupee depreciation, exchange rate volatility deterred FDI and trade openness considerably attracted FDI while inflation was found to be insignificant to the study. The outcomes of Granger causality test proposed that exchange rate volatility granger caused foreign direct investment and not the other way round.

Oganda (2012) studied the relationship between exchange rates and foreign direct investment in the horticulture industry in Kenya. The study used a survey of horticulture industries which consisted of 30 horticulture companies that traded in the period 2000 to 2010.Data collected was used to calculate and analyze export of goods and services, import of goods and services, exchange rates, Gross domestic product, interest rates, the

openness of the economy and wages. The study identified a relationship between foreign direct investment and the export of services and goods. This is closely linked with the rate of currencies; the GDP raised, interest rates and general openness of the economy

Omweri (2013) studied the determinants of foreign direct investment stock in the five countries of the East African Community i.e. Kenya Uganda, Tanzania, Rwanda and Burundi, to find out why the region was recording very low increase of FDI. The research employed panel data analysis methods. The study used trade openness, Gross Domestic Product growth, Gross Domestic Product per Capita, telephone line (per 100 people); aproxy for infrastructural facilities, inflation, return on investment and natural resource endowment as independent variables and the stock of foreign direct investment as the dependent variable. The analyzed data covered the period 1991-2012. The study's findings showed that trade openness, inflation, and infrastructure facilities were the most significant determinants of foreign direct investment to EAC countries.

Muema (2013) in analyzing the determinants of FDI in Kenya concluded that the mean rate of change in the annual average of exchange rates of the Kenyan shilling to the dollar was 7.66%. The highest change in the exchange rates was 80.03% realized in 1992 when the value of the shilling dropped from Sh.58 to the US Dollar to Sh.32.22. The lowest change was -8.24% realized in 1994 when the Kenyan shilling appreciated to Sh.56.05 from Sh. 51.43. He established that there was a strong positive relationship between FDI rate and the change in the rates of exchange indicating that higher FDI inflows were associated with the weakening shilling. The conclusion of his study was that the key factor that determined changes in FDI in Kenya was the exchange rate of the Kenyan Shilling to the other currencies proxied by the speed of change to the US dollar.

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Bilawal et al., (2014) investigated whether uncertainty or fluctuations in exchange rate affected the macroeconomy in Pakistan. The study was based on secondary and time series data. A 32 years data of exchange rate and FDI for the period of 1982 to 2013 was used and was collected from the website of State Bank of Pakistan. The tests of Correlation and regression analysis were applied using the SPSS software to check the relationship between Exchange rate and FDI. The correlation results showed that there was a significant positive association between exchange rate and foreign direct investment.

2.5 Conceptual Framework

```
┌───────────────────┐
│ Exchange     rates│
│ volatility        │──────────────┐
│                   │              │
└───────────────────┘              │
                                   ▼
┌───────────────────┐        ┌──────────────────┐
│ Inflation         │        │ Foreign    direct│
│                   │───────▶│ investment       │
│                   │        │                  │
└───────────────────┘        └──────────────────┘
                                   ▲
┌───────────────────┐              │
│ Economic growth   │              │
│                   │──────────────┘
│                   │
└───────────────────┘
```

Independent variables   Dependent variable

2.6 Summary of the Theoretical and Empirical Reviews

The main objective of the above theories was to explain the relationship between exchange rates volatility and foreign direct investments. The theories advanced on

explaining exchange rates can only work in a perfect market. The law of one price in the dearth of market deficiencies arbitrage ensures that exchange–adjusted prices of similarly traded goods, and financial assets are within transaction costs globally (Mishkin & Eakins, 2009). The theories advocate for equilibrium relationships which may not be achieved. This is because the motives of the different players in the market are never the same. While profit making is the ultimate motive for any investor, the other players, that include the government, are more occupied with a currency that will sustain growth. The theories do not explain the differences that ultimately exchange rates have on influencing FDI.

Barell et al., (2003) argued that while an increase in the value of a currency lowers the foreign exchange cost of imports, it decreases the rate of return to tradable goods in part, through foreign exchange cost of exports and import swaps. When the local currency is not trading as well as a foreign one, the host country is deemed attractive. Some of the studies that have been done show that this statement is not always correct. Muema (2013) concluded that exchange rates were a determinant of FDI. Ndung'u (2001) focused on the liberalization of the Foreign Exchange Market having looked at the previous regimes of the foreign exchange systems Kenya had before (Ndung'u, 1997). Given the above, there exists a gap on the relationship between exchange rates volatility and FDI in the foreign exchange market in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents information on the research design, the population, and sample that was selected for the study. In this section, we will also discuss the data collection methods, data analysis and presentation techniques that were used in this study.

3.2 Research Design

According to Kothari (2004), a research design is a frame of methods and procedures for the acquisition of information that is needed. It is the overall framework of the project that stipulates the information that is to be collected, from which source and by what procedures.

This study used a descriptive-explanatory research design to investigate the relationship between exchange rates and foreign direct investment. A critical research seeks to explain the phenomena being studied; to determine the correlation between exchange rates and FDI while a descriptive research design is typically outlined with the aim of providing a general picture of a given situation as it unfolds naturally. It is usually used to make a justification of current practice and make an objective judgment and also help develop key theories (Kothari, 2004).

3.3 Population and Sampling

A population is an entire group of individuals, events or objects having the same observable characteristics (Mugenda&Mugenda2003). Each population has some unique features that differentiate it from the other. This study investigated the relationship

between exchange rates volatility and FDI using secondary and time series data. Time series data was utilized for both exchange rate and FDI.

The study focused on aggregate data collected from the Kenyan economy from 1970 to 2015. This period was considered long enough to provide sufficient variables to assist in establishing the relationship between exchange rates and foreign direct investments in Kenya. This period was chosen in order to capture the most recent data and to give results that are conclusive and reflect the current trend.

3.4 Data Collection

According to Cooper (2008), data refers to factual information used as a basis for reasoning, discussion or calculation. Mugenda & Mugenda (2003) identified that there are two types of data: primary and secondary data. This study used secondary data which was available in the form of published bulletin and other publications from CBK and KNBS.

Data relating to foreign direct investment, inflation and economic growth was collected from KNBS. Quantitative data on exchange rates that would be useful in the study was gathered from the CBK website for forty six years covering years 1970 -2015 and clustered annually.

3.5 Data Analysis

According to Mugenda & Mugenda (2003), data analysis is the process which starts immediately after data collection and ends at the point of interpretation and processing.

The data was sorted, classified and coded then tabulated for ease of analysis. Data collected was scrutinized using descriptive and inferential statistics.

Data was analyzed using MS Excel and Statistical Package for Social Sciences (SPSS version 21). Regression analysis was used to show the relationship between exchange rates volatility and the level of FDI (remittances) as indicated in the model below. The regression model was used to test the relationship between exchange rates volatility and FDI. Multiple regression analysis and correlation analysis were used to predict the nature and significance of the relationship.

3.5.1 Analytical Model

The analytical model was as follows;

$$Y = \alpha + \beta_1 EX + \beta_2 I + \beta_3 EG + \varepsilon e$$

Where

Y= Foreign Direct Investment as measured by (LN FDI)

α= y intercept

β= regression co-efficient

EX= exchange rates volatility calculated by the annual standard deviation of the direct quote between the USD and the KES currencies

I= inflation rates as measured by the Consumer Price Index

EG=Economic growth as measured by total per capita GDP

εe = error component that represents the deviation of the response from the actual relation.

All factors were calculated on an annual basis.

3.5.2 Tests of Significance

Correlation Coefficient (r) was determined and used to measure the strength and direction of the relationship between the dependent variable (Foreign direct investment) and each of the independent variables. The coefficient of determination (R square) was used to measure the proportion of variance in the dependent variable that can be explained by independent variables.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS, AND DISCUSSION

4.1 Introduction

This chapter focused on the analysis of the collected data from the central bank of Kenya to establish the relationship between exchange rate movement and foreign direct investment for the period between 1970-2015.The results were analyzed using descriptive statistics, tabulated and graphically presented as shown in the following sections.

4.2 Findings

This section presents the detailed results of this study, measures of central tendency, the trends analysis Kenya shillings compared to Dollar, inflation rate, exchange rate and economic growth measured by capita income.

4.3 Descriptive Statistics

From the analysis of descriptive statistics, the finding clearly reveals that foreign direct investment has a mean of 122,971,048.36 with a maximum of 1437000004.37 and a minimum of 394430.63 and standard deviation of 263811041.64. The economic growth has a weighed mean of 1.28% maximum of 17.93% and minimum of -7.92%, inflation rate weighed mean of 9.20% maximum of 56.37% and minimum of 1.22% and standard deviation of 9.20 and exchange rate weighted mean 43.19,maximum of 98.17, minimum of 7.00 and standard deviation of 32.04.

Table 4.1

	Mean	Maximum	Minimum	Standard deviation
FDI	122971048.36	1437000004.37	394430.63	263811041.64
USD	43.19276	98.17854	7.00121	32.04631
Inflation	11.65280	56.36836	1.22115	9.20232
Growth	1.28443	17.92923	-7.91551	4.08564

Figure 4.1 Foreign direct investment trends
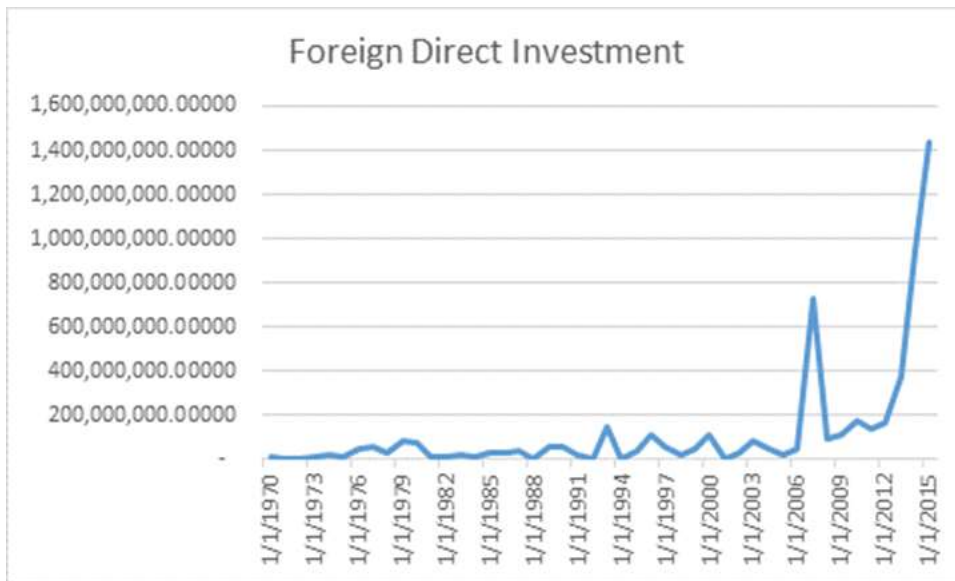
From the analysis of foreign direct investment between 1970 and 2015, it was found that average foreign direct investment from different sectors of the economy remained steadily low between 1970 and 2006 with a significant increase in 2007 which was followed by a drastic decrease in 2008. The period between 2012 and 2015 showed a gradual increase in the foreign direct investment in the country.

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Figure 4.2 Kenya shilling and dollar rate
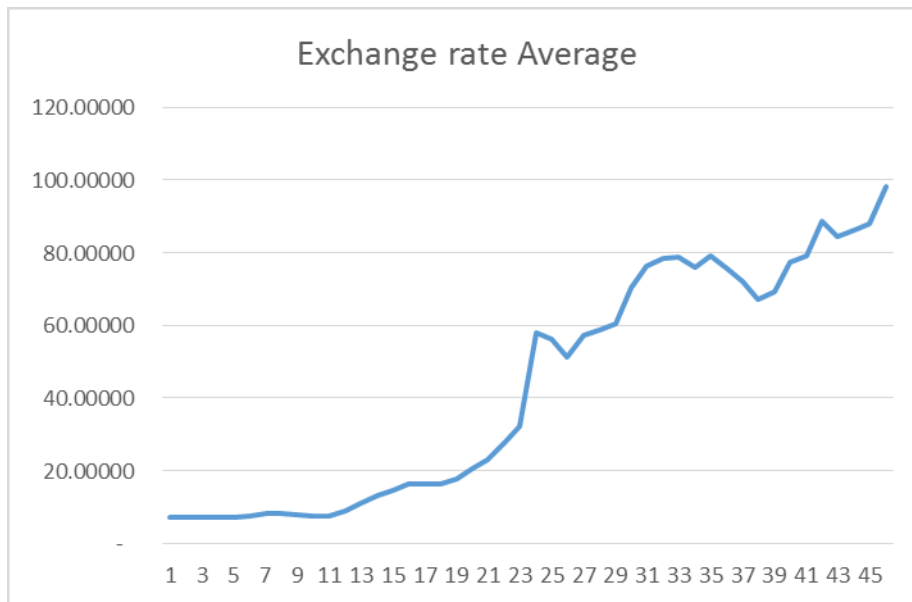
From the analysis of exchange rate measured by Kenya shilling compared to Dollar, it was found that the exchange rate fluctuates upward between 1998 and 2005 which was followed by a sudden downward fluctuation between 2006 and 2008. An upward trend is again seen between 2009 and 2015 with the highest point being in 2015.

Figure 4.3Control variables trend
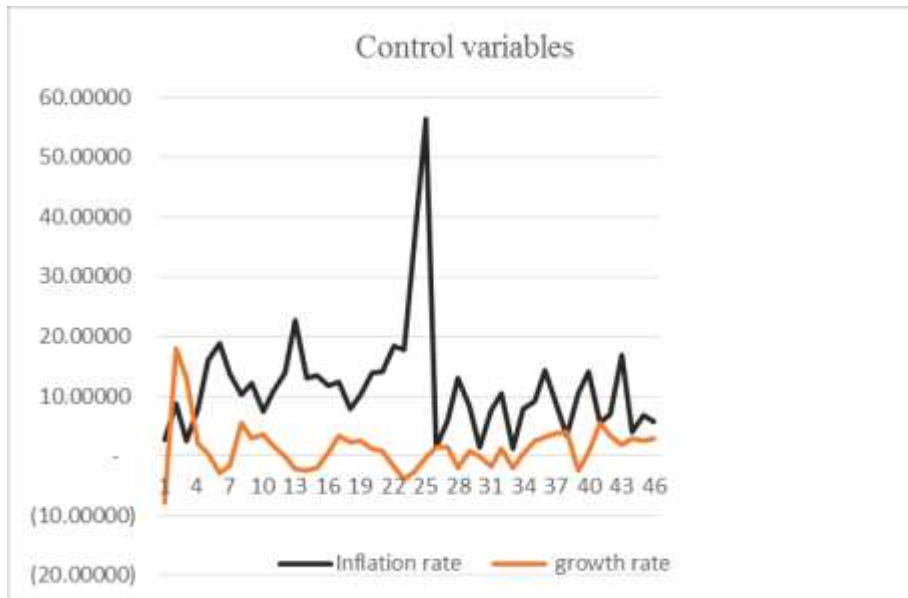
From the analysis of inflation rate between 1970 and 2015, the findings show that inflation rate recorded a sharp increase between 1991 and 1994 with the highest point being in 1994. This was followed by a drastic decrease in 1995. After 1995 an upward and downward trend is observed. The economic growth rate was highest in 1972. Some of the years show a positive growth rate while others show a negative one.

4.4 Correlation Analysis

Correlation analysis is used to establish if there exists a relationship between two variables which lies between (-) strong negative correlation and (+) perfect positive correlation. Three variables were generated using SPSS (exchange rate, inflation rate, and economic growth).

Table 4.2

	Y	EX	I	EG
Y	1			
EX	0.255626689	1		
I	-0.23288368	0.468592957	1	
EG	0.016225161	-0.212279961	-0.261996928	1

From the analysis of the correlation analysis, it was found that there exist a weak positive correlation between exchange rate and foreign direct investment. This implies that the exchange rate determined by market forces influence the foreign investor's decisions but not in a significant way. The relationship between foreign direct investment and inflation rate was found to have a weak degree of negativity. This implies that movement in inflation rate has adverse consequences on the foreign direct investment decisions. The study also showed that there exist a very weak positive correlation between economic growth and foreign direct investment. This study also found that there exist a positive correlation between exchange rate and inflation while the correlation between exchange rate and economic growth was found to be negative.

4.5 Model Summary

Table 4.3

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
	0.474050413	0.22472379	0.169346922	1.333743792

Predictors: (Constant), Exchange rate, Economic growth, Inflation rate

R squared tells us how well the variations in the dependent variable are explained by the differences in the independent variables. Table 4.3 above indicates that there is an R^2 value of 22.5%. This value indicates that the three independent variables explain 22.5%

of the variance in the foreign direct investment. It is very clear that these independent variables influence the foreign direct investment but the degree of the influence is low. It is therefore sufficient to conclude that these variables do not significantly influence the foreign investors' decision given the unexplained variance of 77.5%.

4.6 Anova Analysis

Table 4.4
ANOVA

	Df	Sum of Square	Mean Square	F	Significance F
Regression	3	21.65642249	7.218807496	4.05808	0.012776348
Residual	42	74.71264515	1.778872504		
Total	45	96.36906764			

a. Predictors: (Constant), Economic growth, Inflation rate, Exchange rate
b. Dependent Variable: FDI

Significance F indicates the probability that the regression results could have been obtained by chance. The lower the significance of the more valid the regression results are. Table 4.4 shows the value significance F as 0.01277 meaning that there is only a 1.28% chance that the result is a mere chance occurrence. Given 5% level of significance, the numerator df =3 and denominator df =42, critical value 2.83, Table 4.4 shows computed F value as 4.05808. F (3, 42)=4.05808 is greater than the critical value 2.83. This confirms that overall the multiple regression models is statistically significant, in that it is a suitable prediction model for explaining how the selected independent variables affect the foreign direct investment.

4.7 Regression analysis

Table 4.5

	Coefficients	Std. Error	t Stat	P-value
Intercept	17.89342095	0.348814322	51.297839	1.62432E-39
EX	0.261447883	0.086576789	3.019838068	0.004290149
I	-0.071968907	0.024902374	-2.890041969	0.00607136
EG	-0.001148822	0.050705463	-0.022656769	0.982031362

Using a significance level of 5%, any independent variable having a significant value greater than 5% is considered not statistically significant. This study found that exchange rate and inflation with p-values 0.4% and 0.6% respectively are statistically significant with economic growth rate having a significance of 98.2% which is more than 5% and hence not statistically significant. The equation from the model can therefore be written as;

FDI=17.89+0.26EX-0.072I-0.001EG

CHAPTER FIVE

SUMMARY, FINDINGS, AND RECOMMENDATIONS

5.1 Introduction

This chapter tends to give the account of the results of this study, conclusions, and recommendations for practice and areas for further research.

5.2 Summary

The objective of this survey was to establish the relationship between exchange rate movement and foreign direct investment for the period between 1970 and 2015. From the analysis of the finding, it was found that average foreign direct investment from different sectors of the economy remained steady between 1970 and 2005 with a significant increase in 2007 followed by a drastic decrease in 2008. The period between 2012 and 2015 showed a gradual increase in the foreign direct investment in the country. From the analysis of inflation rate between 1970 and 2015, the findings show that inflation rate recorded a sharp increase between 1991 and 1994 with the highest point being in 1994. This was followed by a drastic decrease in 1995. After 1995 an upward and downward trend is observed. The economic growth rate was highest in 1972. Some of the years show a positive growth rate while others show a negative one.

The findings also found that there exists a weak positive relationship between exchange rate and foreign direct investment. The results showed that economic growth and inflation rate have an insignificant negative impact on foreign direct investment.

5.3 Conclusions

This study concludes that independent variables selected for this study economic growth rate, exchange rate, and inflation rate influence foreign direct investment but to a minimal extent. It is therefore sufficient to conclude that these variables influence foreign investor's decisions though not to a large extent. The overall multiple regression model is statistically significant, in that it is a suitable prediction model for explaining how the selected independent variables affect the foreign direct investment.

5.4 Recommendations

Kenya is a developing country whose population goes up day by day. An increase FDI flows will go a long way towards promoting the domestic economy and creating job opportunities for the citizens. Although the impact exchange rates have on foreign investment is weak they could still be used as a tool to increase the country's foreign investment.

From the findings, there is a need for policy makers to minimize the exchange rate volatility by improvising suitable plans and properly regulating the foreign exchange market. The study further recommends an emphasis on price stability since this was also found to have an influence on foreign investment.

5.5 Limitations of the Study

The study used secondary data that was obtained from the publications of Kenya National Bureau of Statistics and Central Bank of Kenya which could be prone to shortcomings. This study was based on a forty six years study period starting from the year 1970 to 2015. This period of the survey experienced different exchange rate systems. This may have had an impact on the study.

5.6 Areas for Further Research

Further studies can be conducted on the patterns of foreign direct investment in Kenya.

This will enable us to know which industry if any attracts foreign investors and why.

A study on FDI and corruption can also be undertaken to ascertain the effects corruption

has on foreign investment.

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APPENDICIES

Year	FDI	Exchange rate Average	Inflation rate (Variable 2)	EG
1970	13,800,000.00	7.14	2.70	(7.92)
1971	7,400,000.00	7.14	8.77	17.93
1972	6,300,000.00	7.14	2.42	12.96
1973	17,260,000.00	7.00	7.87	2.12
1974	23,420,000.00	7.14	16.06	0.32
1975	17,158,747.47	7.34	18.87	(2.77)
1976	6,371,850.86	8.37	13.76	(1.57)
1977	56,545,225.67	8.28	10.23	5.45
1978	34,414,129.64	7.73	12.24	2.98
1979	84,009,903.28	7.48	7.52	3.63
1980	78,973,745.62	7.42	10.84	1.66
1981	14,147,557.18	9.05	13.88	(0.11)
1982	13,000,894.96	10.92	22.71	(2.30)
1983	23,738,842.68	13.31	13.09	(2.48)
1984	10,753,527.42	14.41	13.48	(2.01)
1985	28,845,949.04	16.43	11.77	0.49
1986	32,725,776.79	16.23	12.33	3.33
1987	39,381,344.20	16.45	7.80	2.20
1988	394,430.64	17.75	10.18	2.52
1989	62,189,917.27	20.57	13.79	1.14
1990	57,081,096.18	22.91	14.20	0.73
1991	18,830,976.84	27.51	18.33	(1.86)
1992	6,363,133.14	32.22	17.79	(3.95)
1993	145,655,517.11	58.00	35.83	(2.74)
1994	7,432,412.60	56.05	56.37	(0.39)
1995	42,289,248.46	51.43	1.38	1.49
1996	108,672,931.62	57.11	5.88	1.39

1997	62,096,809.78	58.73	12.99	(2.05)
1998	26,548,245.97	60.37	8.27	0.77
1999	51,953,455.95	70.33	1.34	(0.18)
2000	110,904,550.40	76.18	7.67	(1.88)
2001	5,302,622.94	78.56	10.54	1.18
2002	27,618,447.06	78.75	1.22	(2.00)
2003	81,738,242.64	75.94	7.97	0.30
2004	46,063,931.45	79.17	9.10	2.40
2005	21,211,685.40	75.55	14.32	3.18
2006	50,674,725.18	72.10	8.43	3.72
2007	729,044,146.04	67.32	3.35	4.08
2008	95,585,680.23	69.18	10.49	(2.37)
2009	116,257,608.99	77.35	14.14	0.61
2010	178,064,606.75	79.23	5.54	5.56
2011	139,862,091.10	88.81	7.05	3.31
2012	163,410,210.30	84.53	16.86	1.79
2013	371,846,696.37	86.12	4.08	2.91
2014	944,327,305.01	87.92	6.78	2.58
2015	1,437,000,004.37	98.18	5.82	2.93