EFFECT OF FOREIGN DIRECT INVESTMENT ON THE PERFORMANCE OF THE REAL ESTATE SECTOR IN KENYA

BY

EVERLYNE AMONDI

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DECLARATION

I declare that this project is my own original work and that it has not been presented and will not presented to any other university for similar or any other degree award.

Everlyne Amondi

D61/77630/2015

Signature-----------------------------------Date--

SUPERVISOR

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

Signature-------------------------------Date---

Dr. Mirie Mwangi,

Senior Lecturer Department of Finance and Accounting, University

of Nairobi.

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ABBREVIATIONS

ANOVA:	Analysis of Variance
AVIC :	Aviation Industry Corporation of China
FDI :	Foreign Direct Investment
FREI :	Foreign Real Estate Investment
GDP :	Gross Domestic Product
ICT :	Information and Communication Technology
KPDA :	Kenya Property Developers
LAPSSET:	Lamu Port Southern Sudan-Ethiopia Transport Corridor
MNC :	Multinational Corporation
MNE :	Multinational Enterprises
NEMA:	National Environmental Management Authority
NCA :	National Construction Authority
NSSF:	National Social Security Fund
SPSS :	Statistical Package for Social Science

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ABSTRACT

Over the years the Kenyan economy has enjoyed several developments in terms of infrastructure and policies as well as experts relocating in Kenya and corporations interested in expanding operations in Kenya. Foreign Direct Investment has become an area of concern to many developing nations due to the economic benefits it presents to the host nation. The role played by real estate sector in the economy has become critical especially in emerging economies. As the property market around the world is experiencing a bubble, developments in FDI has ensured the real estate market has remained strong with the demand for middle to high income housing remaining steady. This study sought to establish the effect of FDI on the performance of the real estate sector in Kenya. The study adopted a descriptive research design where secondary data was used and the analysis was done using SPSS software. The study used both descriptive and inferential statistics to analyze the collected data. Inflation and interest rates were used as controlling variables. The study concluded that foreign direct investment, interest rates and inflation rates all affect the performance of real estate sector in Kenya with foreign direct investment having the highest effect, followed by inflation and finally interest rates. Together they were established to contribute to 49% change in performance of the real estate sector. Additionally, foreign direct investment was established to have a positive effect on the performance of the real estate sector while inflation and interest rates were established to have a negative effect on the performance of real estate sector. Further, the study established that Foreign Direct Investment, Inflation and interest rates were statistically insignificant individually. Test of significance at p-value of 0.004 and F-test value of 6.89 with a confidence level of 0.05 indicated that multiple regression model was significant in explaining the relationship between FDI and performance of real estate sector in Kenya. The study recommended that national government ought to create a conducive climate to encourage more investments in the Kenyan Real estate Sector from both local and foreign investors, financial institutions should offer attractive lending interest rates on mortgages to attract more real estate developers to the sector, financial institutions should strive a balance between the retaillending and interest rates charged to real estate developers and regulators should put in place strong monetary and fiscal policies to minimize the negative effects of inflation and interest rates on the performance of real estate sector.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Over the years the Kenyan economy has enjoyed several developments in terms of infrastructure and policies as well as experts relocating in Kenya and corporations interested in expanding operations in Kenya. Due to these developments, Kenya has attracted foreign capital and its real estate sector has become an area of interest to external economies (Kenyan Economic Report, 2013). The movement of expatriates into the country and inflow of businesses has led to increased demand for residential as well as commercial housing. This increased demand has further lead to developments in satellite and commuter town evidenced by Tatu City in Kiambu and Konza City in Machakos. To meet the expatriate demand for housing, developers have resorted to developments that are geared towards the quality demand of the expatriates. An example is Migaa in Kiambu County which is a modern, developed, equipped project with commercial and retail space, hospital, museum and a golf course, (Kenyan Economic Report, 2013). Further investors in the real estate sector have been seen to explore alternative means of capitalizing on the promising sector through use of real estate investment trust and partnering with financial institutions (Kenyan Economic Report, 2013).

Studies have identified Macroeconomic factors as the major factors affecting the real estate sector performance in Kenya (Loyford & Moronge 2014) with the effect of Foreign Direct investment being looked at in terms of the economy at large. At the global level the Foreign Direct investment and real estate relationship has been viewed in the same light with some studies exploring the effect of Foreign Direct investment in specific sectors of the economy (Alfaro 2003) and others examining the effect of Foreign Direct investment on Foreign Real Estate investment

(Fereidouni & Masron, 2012). Drawing on this gap in literature, this study seeks to establish if Foreign Direct investment has contributed in any way to the performance of the real estate sector in Kenya.

1.1.1 Foreign Direct Investment

Foreign Direct investment has become an area of concern to many developing nations due to the economic benefits it presents to the host nation. Following this developing nations are putting in place policies such as subsidies to foreign firms and import duties exemptions to encourage the inflow of Foreign Direct investment (Ezeanjeji & Ifebi 2016). Bjorvatvatn (2000) defines Foreign Direct investment as an investment made to acquire a long term investment in a foreign enterprise with the view of having a voice in the enterprises management. Foreign Direct investment can take three forms Horizontal Foreign Direct investment which occurs when a company undertakes the same activities abroad as at home, Vertical Foreign Direct investment where different stages of activities are added abroad and Conglomerate where a company expands its operations abroad through either Greenfield or Acquisition (O'Connor, 2003). Foreign Direct investment also differs in their objective abroad; they can be resource seeking, efficiency seeking and market seeking. Resource seeking is concerned with moving their operations close to the resources, efficiency seeking is concerned with cutting costs and market seeking is concerned with the market for its products (Spatz & Nunnenkamp, 2004).

Over the years' studies have remained obscure on the impact of Foreign Direct investment on the various sectors of the economy with some arguing that it has a negative impact and others arguing that it has a positive impact (Slywester, 2005).

According to Bloomstrom & Kokko (2003) as foreign capital flows into a country, there is an increase in demand for labor. This in return creates employment in the host country as well as contributes to liquidity in the market. As more employment opportunities are created the host country will benefit from higher tax revenue from employment income and profitable MNE. Additionally, as MNEs move into a country, local firms are forced to improve their managerial effort, adopt the latest marketing strategies, adopt the use of new technologies and train workers on the latest skills which they will employ in the local firms. Through research and developments, MNE transfer technologies to local firms by transferring inventory techniques, standardization and quality control to their local distributors and suppliers. Finally, as MNE moves into the foreign market, they create competition in the local market forcing local firms to produce more efficiently while at the same time doing away with monopolies (Olga Chernysheva, 2011).

Foreign Direct investment measurement is based on Foreign Direct investment stock which is expressed as a percentage of the GDP of a country. It’s normally published at the end of year with its components being outward Foreign Direct investment stock that includes residences equity investments and credits to foreign countries and inward Foreign Direct investment stock which is foreigners’ equity investment and credits to host economy. The problem with this method is that developing countries do not possess the necessary systems and technology to collect these data efficiently. Along with Foreign Direct investment stock, Foreign Direct investment flows is also a measure of Foreign Direct investment though its volatile nature makes Foreign Direct investment stock a suitable measure of Foreign Direct investment as Foreign Direct investment stock incorporates changes in the economy such as inflation and exchange rate (Nunnenkamp, 2002).

1.1.2 Performance of the Real Estate Sector

The role played by real estate sector in the economy has become critical especially in emerging economies. Due to economic developments and heavy investment in infrastructure in these regions, demand for better quality housing and emergence of new cities has been on the rise. Real estate can be defined as property consisting of land and anything permanently fixed to it along with its natural resources such as crops, minerals or water (Brown & Matysiak 2000). The sector is made up of three major segments namely agency, investment and operations (Kimmono 2010). Real estate investing involves the purchase, ownership, management, renting of land or sale of real estate for profit. While real estate operations entail developing, renting, leasing, managing commercial and residential properties, consultation services, real estate appraisal services, brokerage and agency services (New York Times 2016). Kenyan real estate property covers all property categories including single and multifamily residential dwellings, commercial and agricultural land, office space, go-dawns and warehouses, retail outlets and shopping complexes. Other aspects of real estate include mortgage industry, real estate investment trust and other financial activities related to real estate sector (Bardhan & Kroll, 2007). In the context of this study, growth in investment will serve as a proxy for performance of real estate sector.

Several benefits accrue from investments in real estate sector with one of them being property tax on the new constructions which contribute positively to the economy in terms of funding for infrastructure developments. Real estate sector also provides employments for those working in the real estate sector thereby contributing to a reduction in unemployment and growth in a countries economy as income earned from employment are spent locally (Economic Impact of Commercial Real Estate, 2014).

Two parameters namely housing prices and real estate investment are employed in measuring real estate sector performance. As demand for housing increases, there is an increase in housing prices as well as increased investment in real estate as firms attempt to capture the increased demand (Knight Frank Economic Report of 2011). It can therefore be said that due to the positive relationship between housing demand, real estate prices and investment they present a suitable measure of the performance of the real estate sector. Therefore, in the context of this study, growth in the level of investment will serve as a measure of the performance of real estate sector in Kenya.

1.1.3 Relationship between FDI and Real Estate Sector

As the property market around the world is experiencing a bubble, developments in Foreign Direct investment has ensured the real estate market has remained strong with the demand for middle to high income housing remaining steady. Studies over the years have established that FDI can either have a positive or a negative impact on the economy (Sylvester, 2005). Real estate sector being a part of the economy, it's clear that Foreign Direct investment is likely to impact on it.

Jr-Tsung, Yu-Ning Hwang and Kuang Tu Lo (2014) in their article on the role of Foreign Direct investment in Shanghai real estate prices primarily established that Real Estate Foreign Direct investment does not have a significant effect on real estate prices for both office and housing prices in the short run but affects office prices in the long run. Borrowing on this assumption it can be argued that FDI in real estate has a significance on the performance of the real estate sector of the host nation based on its established relationship with the real estate prices. As inflow of Foreign Direct investment increases, there is increased demand for housing by MNCs in terms of residential and commercial property. The increased demand is likely to attract foreign as well as local investors looking to capitalize on the increased demand. With both sectors seeking to profit from the increased demand, mortgage financing and

investment in the real estate sector is likely to increase thereby affecting the real estate prices in the host nation (Omboi, 2013).

Bardhan & Kroll (2007) in their survey of the relationship between globalization and real estate industry showed that service firms for real estate firms and brokerage firms for residential real estate in the US follow MNCs to developing nations to provide residential real estate service for expatriate population. Based on their findings it can be said that as MNCs expand their operations in the host nation, they contribute to an inflow of Foreign Real estate firms into the host country looking to capture the additional demand they create (He & Zhu 2010). Inflow of Foreign real estate investment in the host country's real estate sector increases the level of foreign investment in the host nation further contributing to the level of competition and supply of housing in the host country's real estate sector (Fereidouni & Masron, 2012).

He *et al* (2009) in their research on determinants of FDI in Chinese real estate sector established that coastal cities were very attractive to foreign real estate investors and that they follow their clients to Chinese cities while seeking local profit opportunity. From these findings it can be deduced that as foreign investors in real estate expand their real estate activities to the host nation they tend to focus on the high end properties market of the host nation. Investing in high end real estate sector requires a lot of capital which may be easier for foreign firms to obtain as they have access to a wide range of financial resources. Additionally, they may have the advantage of having worked with these multinationals in their home country giving them an upper hand over local firms in the expatriate niche. Following these advantages as foreign real estate firms attempt to exploit the local profit opportunity, they are prone to influence the level and quality of local investment as well as property prices in the host country real estate sector (Olga Chernysheva, 2011).

Anop (2010) in his research on determinants of FREI established that GDP as a measure of market size, good infrastructure and human capital were responsible for attracting foreign capital in the real estate sector. Based on this argument, it can be said that in an attempt to increase inflow of Foreign Direct investment into a country, governments tend to invest heavily in infrastructure development and improvement by improving on transport networks and social amenities in its various towns. This move by the government will lead to growth in satellite towns prompting people to move to these regions and companies to move their operations in these regions. As companies move their operations to these emerging cities they are in need of commercial properties for their operations and residential properties for their staff. Through this increased demand for properties, an opportunity is presented to the real estate sector to capitalize on thereby contributing to increased investment in real estate sector and increase in housing prices (He & Zhu, 2010).

According to Bloomstrom & Kokko (2003) in their article on the economics of foreign direct investment incentives, Foreign Direct investment creates new employment in the host nation. New employment opportunities in the host country lead to an increase in the income per capita of the country and a reduction in unemployment rate. Further, increased income is likely to lead to an increase in the demand for housing a factor that will make the real estate sector of a country very attractive due to the growing market attributable to the increased demand (Kamau, Mogaka & Mboya 2015). Increased demand which is an indicator of large revenue from the sector is bound to push housing prices up and increase the number of developments coming up to capitalize on this opportunity.

Spats & Nunnenkamp (2004) in their research on the effect of Foreign Direct investment on the economy based their objective abroad established that, market seeking Foreign Direct Investment had a positive impact on the economy as they modernize the host market and introduce new products to the host market. Drawing on these finding, it can be said that since Foreign Direct Investment in real estate is market seeking, when they expand their operations to the foreign nation, they introduce new ways of investing in the sector such as the use of FREIT, partnership, group funding among others, efficient marketing techniques such as the use of social media, varied designs and techniques of developing houses and encourage improved quality of housing.

1.1.4 Real Estate Sector in Kenya

The real estate sector in Kenya has been booming since the 2000s as the property market is responding to increased demand. This increased demand for housing has been associated with high net worth investors investing in office complexes, shopping malls and hotels. Further, government's expenditure on construction works such as airports expansion; rapid urbanization, population growth and expansion of the middle class have also contributed to the growing demand. According to Real Estate Report by Cytonn Investment of the third quarter of 2015, the greatest growth was reported by construction industry at 14.1% ahead of agriculture which reported 7.1% and financial service which reported 10.1%.

The housing demand in Kenya supersedes housing supply. According to ministry of land and housing survey of 2013 the country faces an annual house demand of 200,000units and supply of 30,000 units. Further Kenya Property developers and Hass

Consultant reported that Nairobi County is suffering from middle income housing deficit attributable to high land prices, high cost of construction permit which has risen to 1.25% from the previous 0.006% of construction cost, high lending rates for those opting for mortgage use and high infrastructure costs accounting for 30% of construction. The deficit in housing supply has contributed to a rise in property prices.

Kenyan Real estate sector is very promising; Kenya has a very young population with 42 % below 14 years and 34% between 25 and 54 years (Kenyan Population and Housing Census report 2009). This indicates that a large portion of the population is just entering the work force giving them the ability to invest in the real estate sector. With Kenya moving towards a stronger middle class, demand for residential and retail property is likely to attract investments to the real estate sector and further contributing to a rise in property prices (Mwangi et al., 2014).

To capitalize on the growing real estate sector of Kenya, investors have been seen to explore alternative means of investing in the real estate sector. This is evident in the introduction of Income Real Estate Investment Trust by Stanlib and Development Real Estate Investment Trust by Fusion Capital (Kenya Property developers and Hass Consultant report 2013). Similarly, firms such as Centum and NSSF are also considering the use of real estate investment trust (Kenyan economic report 2015). As stated in Cytonn report, the development of REIT is likely to attract institution developers such as foreign institutions, Sacco's, private equity firms due to transparency and ease of exit associated with it. Moreover, Insurance firms and pension schemes are currently investing more than 16% of their portfolio in real estate and Investors are partnership with financial institutions to finance their endeavors an example is the Kahawa go dawn development between housing finance and land owners (Knight Frank Economic Report 2011). With these new means of venturing into the real estate sector, investment in the real estate has increased alongside housing supply.

Typically, foreign real estate firms are moving their operations into the country in an attempt to capture the promising market which is generating a return of between 25% and 30% (Knight Frank Economic Report 2011). Big international real estate firms have invested millions of shillings in luxury properties and high end markets which are tailored towards the needs of wealthy Kenyans, expatriates and diplomats. Based on knight frank 2012 prime international residential index, Kenyans luxury real estate reported the highest rise in prices globally with Nairobi reporting 25% rise in prime real estate price and coast reporting 20% keeping it ahead of Miami which reported 19.1%, London 12%, Moscow 9.8% and New York 3.1%. Nairobi also received a vote as one of the top cities to watch by global real estate firm Jones Lang LaSalle out of 150 cities globally .Over and above Aviation Industry Corporation of China (Avic), a Chinese firm is developing offices, a hotel and apartment blocks in the country, Broll a South African company who specializes in managing office blocks and shopping malls has opened shop in Kenya and American real estate broker Coldwell banker as reported by business daily Africa has also opened a Kenyan office. Other foreign real estate firms include, Dunhill consulting limited, Lloyd Masika Limited and Hass Consulting. The inflow of Foreign Real Estate firms has increased the level of investment and competition in the sector, (Kenya Property Developers and Hass Consultant Report, 2013).

Kenyan Government through its policies and infrastructure development has contributed to investment in Kenyan real estate sector. Devolution and Increased investment in infrastructure such as telecommunication system, electrification, ICT has contributed to real estate growth in urban Centre such as Mombasa, Kisumu, Eldoret and Nakuru. Bypasses including Ruaka and Karen have attracted real estate investment in these areas. The LAPPSET and standard railway gauge is also expected to have the same effect. Recently, the government announced the reduction in corporate tax rate to 20 per cent from 30 for developers who produces more than 1000 houses in a year and a waiver of levies payable to NHA and NEMA. This move is expected to contribute to increased investment in the sector to cater for the annual deficit of 200,000and to take advantage of the tax and waiver incentives (Cytonn Investment Report, 2015).

Kenya has only one financial institution specializing in Real estate funding that is Housing Finance Corporation indicating financial constraint in the sector. However, the banking sector which had not been keen about issuing real estate development and purchase loans have begun to show interest in the growing sector. Kenyan bankers' association has come up with their own housing price index to monitor and measure real estate development. The price index is expected to incorporate property sizes, location of the property, accessibility to social amenities and other features such as presence of swimming pool in determining the value of a property (Kenya Bankers Association Housing Price Index Report, 2015).

On the other hand, Kenya is putting in place strategies to attract Foreign Direct Investment into the country. According to World Bank doing business report of 2016, in an attempt to increase Foreign Direct Investment, Kenya simplified business creation procedures and business license acquisition, improved credit accessibility and encouraged public private partnership. Foreign firms are surging into Kenya to venture into sectors such as oil and exploration, the booming technology industry, transport, real estate and manufacturing which have shown positive returns over the years. MNC have chosen Kenya as their regional hub as opposed to the other countries due to its market size, high development, suitable labor, promising middle class and good infrastructure (Abala, 2014). As reported by US data vendor that tracks emerging markets, Kenya has been ranked second as the most preferred destination in Africa and globally it was ranked fifth. The most prosperous year for Kenya in FDI was 2007 when there was an inward investment amount of USD 729 million which accounted for 2.7 percent of total GDP. Foreign Direct Investment slowed in 2008 due to post election violence followed by an increase in 2009 with FDI reporting 425.1 million in 2014 (Kenyan Economic Report, 2015).

1.2 Research Problem

Kenya has been the destination areas for multinationals and its real estate sector has attracted a lot of attention. This is attributable to its growing middle class, its highly educated population, its improved infrastructure, its strategic position as the head quarter of many MNC and organizations. Over the years, its real estate sector has been growing alongside Foreign Direct Investment in the country with housing projects coming up and more multinational corporations moving into the country, (World Bank Doing Business Report, 2015). Kenyan real estate sector has grown to be fourth largest contributor to its GDP with its contribution more than doubling from the previous 4.9 %. The latest data released by Kenya National Bureau of Statistics for the third quarter of 2015 revealed that the real estate sector has been growing from year to year at a rate of 5.4 per cent with its contribution to GDP remaining steady at 8 per cent. The housing price has also been rising especially for high end properties and offices as well as low income housing. According to Hass Consultant data in 2014 residential property prices increased by 8.3% and apartment prices by 13.2%. Additionally, a report by Kenya National Bureau of Statistics indicated that the rental value of one-bedroom housing rose by 12.2 per cent last year, for two bedroom rose by 4.4 percent and three-bedroom house rose by 5.3 per cent.

Of the studies reviewed there is no study directly linking FDI and performance of the real estate sector, however some studies have associated Foreign Direct Investment with increased Foreign Direct Investment in real estate (Bardhan & Kroll, 2007), increased office prices in the long run (Tsung *et al.*, 2014), improved infrastructure in the host country (Anop 2010), increased employment in the host nation (Bloomstrom & Kokko 2003) increased competition in the host market (He et al 2009), modernization of the host market and introduction of new products in the host market (Spats & Nunnenkamp, 2004). These relationships though do not directly explain the relationship between the two variables of study, they advise the study by highlighting the theoretically expected relationship between FDI and performance of the real estate sector.

At the global level the effect of Foreign Direct Investment on the economy is not conclusive with some studies arguing that its dependent on the sector of the economy to which it’s channeled and others associating it with the linkage that the sector has to the rest of the economy. Aykut & Sayek (2005) in his study in Latin America established that FDI in the manufacturing sector has a positive effect on the economy while Foreign Direct Investment in the primary or service sector has a negative impact on the economy. The study further indicated that Foreign Direct investment in the manufacturing sector in addition to using local resources brings in technology and know-how while Foreign Direct Investment in the primary sector uses less of local good and is export oriented.

The same was echoed by Alfaro (2003) in his survey of developing nations and Wang (2002) in his survey of Asian nations. Also studies have associated the effect of

Foreign Direct Investment on the economy with the type of Foreign Direct Investment, efficiency seeking Foreign Direct Investment have been identified with positive impact on the economy through technology and know-how transfer while resource seeking Foreign Direct Investment have been related to corruption by local entities and market seeking Foreign Direct Investment has been associated with introduction of new products and services and modernization of marketing (Spatz & Nunnenkamp 2004). The effect of Foreign Direct Investment on the economy has further been linked to the technology status of the host nation and nature of human capital with the studies arguing that host nation can only take advantage of new technology if it has an educated population (Chat *et al.*, 2004). However, in Kenya based on the studies reviewed, studies on the effects of Foreign Direct Investment have taken only one angle whereby the studies have focused on the whole economy and the benefits it brings such as employment, increased savings and transfer of technology.

In terms of factors affecting the performance of the real estate sectors studies have identified macroeconomics factors as the key determinant at the global level. Karlson & Nordstrom (2007) associated macroeconomic factors to financial performance of the real estate sector, Venkstech (2013) associated macroeconomic factors to performance of the real estate sector in his survey of the real estate bubble in Singapore and Manni & Chane Teng (2008) established a significant relationship between macroeconomic factors and French real estate investment trust performance. Further some studies have explored determinants of foreign direct investment in the real estate sector. Anop (2010) using the data of 15 developed OECD countries for the period of 1996-2007 established that GDP as a measure of market size, good roads and human capital were responsible for attracting foreign capital in the real estate sector, Rodriguez and Bustillo (2010) using Engle-Granger co integrating regression in the Spanish context concluded that housing prices, GDP per capita, travel cost and capital gain were the determinants of foreign real estate investment flow in Spain. He and Zhu (2010) in his analysis of 35 cities in China using panel data analysis found that both demand by foreigners for real estate and local firms attracted foreign real estate developers and that foreign investors favored cities with heavy real estate investment, developed land market and liberalized economies. Falkenbach (2009) in studying investors criteria in selecting international market in Finland using questionnaires among investors identified expected return on property investment, liquidity of property market, market size, taxation, expected economic growth, availability of market information and safety of property rights as the key determinants.

In the Kenyan context studies have concentrated on the relationship between macroeconomic variable and performance of the real estate sector. Bioreri (2015) indicated that growth in exchange rate, interest rate, Diaspora remittance, inflation rate and real GDP together as opposed to individually affect the performance of the real estate sector. Ouma (2015) in his study on effect of macro-economic variables on real estate prices demonstrated that high interests' rates and inflation contribute to high real estate prices while high GDP leads to low house prices. Kamau, Mboya & Mogaka (2015) showed that a positive relationship exists between GDP per capita, informal employment, inflation and mortgage growth in Kenya.

The studies reviewed have focused on specific macroeconomic factors such as inflation, GDP, interest rate, foreign exchange and employment rate as the determinant of the real estate sector performance in Kenya with little attention given to other prevalent factors such Foreign Direct Investment, taxation, technology, foreign real estate investment and government interventions. Also the reviewed studies in the Kenyan context have failed to show how Foreign Direct Investment affect specific sectors of the economy rather the effect of Foreign Direct Investment has been generalized to the economy at large ignoring the fact that the economy is made up of different sectors with different characteristics. Housing demand, GDP, return on investment, housing prices, public infrastructure, human capital, developed services, potential market, new market penetration and experience in a given market from the studies reviewed have been identified as the key determinants of foreign real estate investment in the global context with no studies associating the same factors to the Kenyan real estate sector. Finally, even though the global studies reviewed have tried to classify the effect of FDI in terms of their objective abroad, Kenyan studies have ignored this aspect in the studies examined. In conclusion, based on the studies reviewed on the effect of FDI and on the determinants of the performance of the real estate sector its evident that global studies are more advanced in the area of study than in Kenya therefore this study sought to bridge the gap by examining the relationship between FDI and performance of the real estate sector in Kenya.

1.3 Research Objective

The objective of this study was to establish the effect of Foreign Direct Investment on the performance of the real estate sector in Kenya.

1.4 Value of the Study

The study is expected to add to the existing literature on the real estate sector providing academicians with insight on the areas in real estate sector that needs to be researched further on. The study is also expected to act as a guide to policy makers in coming up with policies that would ensure that the economy benefits from FDI positively and that the real estate sector remains stable enabling both local and foreign real estate firms to benefit from the lucrative market.

Also, the study would act as guide to real estate investors in ensuring they reap the highest returns from their investment while tailoring their developments towards the needs of their clients. Banks are also expected to benefit from this study as it would enlighten them on whether they stand to benefit from expanding their portfolio to incorporate financing of real estate investments. Finally, the study would create awareness on alternative channels through which local investors can ventures into the promising sector other than through cash and mortgage financing.

CHAPTER TWO: LITERATURE REVIEW

2.1Introduction

This chapter reviews past studies pertinent to the study problem and explores the theories that have been advanced in relation to the study problem. The chapter also looks into the empirical literatures as developed by the recent researchers developing the conceptual framework that guides the approach of the research and the dependent and independent variables that constitute the model of study.

2.2Theoretical Review

Several theories have been identified to explain the effect of FDI and the performance of the real estate sector of the economy. Some of these theories are resource based theory, open system theory, neoclassical theory and internationalization theory.

2.2.1Resource Based Theory

Resource based theory by Wernerfelt (1984) argues that in order to have a competitive advantage, a firm has to possess some superior capabilities and resources that their competitors do not have or they should be able to imitate the advantages their competitors possess. These resources should enable the firm to exploit an opportunity while at the same time overcome threats in the environment. Additionally, the resources should not be present in the current and future competition and should be free from substitution by another resource.

As MNEs move into a foreign country, they have specific quality demand for both their corporate and residential property. These specifications may not be present when they first set up their operations in the host nation calling for the need to employ the services of the real estate firms from their home country who are conversant with their demand specification (Bardhan & Kroll, 2007). Having this in mind, foreign real estate firms will possess a competitive advantage in serving the MNE market over the local real estate firms when they expand their operations into the host country.

2.2.2 Open System Theory

Open system theory by Katz and Kahn (1978) is of the assumption that the organization is environmental serving and environment dependent, that is to say, it obtains its resources from the environment and supplies its products to the environment. On the other hand, the environment presents threats and opportunities from the environment such as technology, innovation, as well as competition to an organization. For an organization to survive it has to keep up with the environment which is constantly changing.

Due to the dynamic nature of the environment, businesses are constantly changing how they do business to ensure they remain relevant in the business world. An influx of MNEs into the country impacts on the environment in which businesses in that industry are operating as these MNEs come up with new ways of doing business as well as sourcing funds. In the context of our study, MNEs have been seen to employ the use of social media as an efficient means of undertaking their marketing activities and diverse means of funding their venture such as group funding and bonds among others (Olga Chernysheva, 2011). When they expand their operations into a developing host country, they have these advantages over local firms; as a result, local firms are forced to be equally innovative to ensure they do not lose their market share to the foreign firms.

2.2.3 Neoclassical Theory

Neoclassical theory of investment by Cockcroft and Riddell (1991) states that the inflow of investment into a country is guided by the factors such as macroeconomic policies, taxation and how they affect a firm expected rate of return. The theory argues that FDI by increasing the capital income per person influences the growth of income. Further FDI increases growth through research and development, technology transfers and introduction of new forms of human capital.

When a country has in place suitable policies such as tax incentives, ease of obtaining licenses and starting businesses and improved infrastructure, MNEs will be drawn to these countries leading to increased investment and employment in the host country. When employment rates of a country increase, the income per capita of the host country increases which means that more people will invest in the real estate sector (Bloomstrom& Kokko 2003). Taking the example of Kenya, through the announcement of corporate tax deduction of 20 percent from the previous 30 per cent for the developers who develop more than 1000 houses in a year, foreign real estate developers will be drawn into the country in attempt to capitalize on the tax incentives and promising real estate sector. Additionally, as these firms expand their operations into the host country, they bring along new ways of doing business such as income real estate investment by Stanlib in the case of Kenya which local firms such as NSSF are considering imitating following its success.

2.2.4 Internationalization Theory

Internationalization theory by Buckley and Casson (1976) holds that, the decision by a firm to expand abroad is dependent on its cost benefit analysis of its host country and home country. The firm will not only look at the expected return but also at the country specific factors such as demand for a product, barriers to entry, cost of capital, political stability and economies of scale before expanding into a foreign country. Following this, it can be said that firms will target a given country due to cheap labor and Raw material.

Basing our argument on this theory, as MNE expand their operations into a host country, they add to the housing demand for the host country through residential as well commercial demand for their expatriates and offices. When the housing demand for a country is high and the supply is not sufficient to meet the demand as in the Kenyan case, prices of houses are bound to rise alongside the returns from the housing sector (He & Zhu 2010). With the attractive returns emanating from the increased demand, the real estate sector become attractive to foreign real estate firms encouraging them to expand their operations into the host country to capitalize on the lucrative market more so if the market in their home country is saturated.

2.3 Determinants of Performance of Real Estate Sector

Several factors have been identified to affect the performance of the real estate sector by studies over the years; some of these factors include interest rates, Inflation, GDP, technology development, and market size among others.

2.3.1 Interest Rates

Interest rate has been identified as a major determinant of an individual's ability to buy a residential property as it affects mortgage prices. This is to say, as interest rates rises, the cost of obtaining mortgage also rises and when the mortgage costs rise, demand for housing falls pushing down property prices. On the other hand, if interest rates fall, mortgage rates also fall leading to increased demand for housing and a rise in property prices,(Yu Xiao 2006). When interest rates are high; people tend to save rather than spend as the high interest rates are attractive thereby contributing to a reduction in investment in the real estate sector.

The other aspect of interest rates that influence real estate sector performance is interbank rate and Treasury bill rates where when interbank rates fall, the supply of funds increases meaning there is capital for investment in and development of real estate. When interest rates are high the final project is delivered at a higher cost due to high cost of labor, material and money. Following this developer passes the high cost to customers' hence higher housing prices. This in return discourages new entries lowering investment in the sector (Yu Xiao 2006).

2.3.2 Gross Domestic Product

GDP per capital which is the indicator of a country's standard of living is another factor affecting the performance of the real estate sector. When the GDP per capital is low, the purchasing power of people becomes low leading to lower housing demand which further pushes down the house prices, (Luo Pengfei 2012). Conversely when GDP of a country rises, the purchasing power of an individual will be high leading to an increased demand for housing and high house prices.

Additionally, when the wealth of that country's population increases it leads to an increase in discretionary income of its citizens. This income is likely to be channeled to the real estate sector. With this increased investment in the real estate sector and lag in construction, real estate prices and rents are likely to rise (Luo Pengfei 2012).

2.3.3 Market Size

The market size of a country's industry has been identified as an indicator of the investment opportunity available in a given industry. When the employment level of a country increases, the per capita income of the individuals in that country increases. With increased per capita income, citizens have a high purchasing power thereby increasing the demand for housing, (Rodriguez & Bastillo 2011).

With increased demand for housing, the market size of the real estate sector increases a factor that is likely to attract investment from foreign real estate investors as well as institutional and private real estate investors into the real estate sector (Rodriguez & Bastillo 2011).

2.3.4 Inflation Rate

According to Albenson et al (2005), a positive relationship exists between property prices and inflation in the long run. Using Gordon's growth model, real estate price is given by net present value of future cash flows assumed to grow in perpetuity at a constant rate with an appropriate discount rate. Inflation is established to affect the rent and growth in rent in equal measures meaning it has no impact on the real estate value. High inflation rates tend to lead to an increase in mortgage interest rates charged by lenders as compensation for the expected erosion in the value of their claim. This increase in interest further raises the annual payment of acquiring a house.

These increased annual payments and interests do not result into increased cost of housing as they are offset by erosion in the debtor's claims in the long run. The inflation induced interest rate increase in the earlier years of the mortgage however reduces demand for housing due to income constraints. Additionally, property assets are long lived and incomes arising from it adjust with inflation unlike most fixed assets therefore due to uncertainties on the return on bond and stock investment, investors tend to invest in real estate as a hedge against the risk of wealth erosion through rising inflation.

2.3.5 Technology Changes

The use of e-commerce has influenced demand for housing to a greater extent. Due to the fact that most of the transactions are done online nowadays organizations only need retail space as show room or for storage, (Breheny 2013). Additionally, to ensure real estate firms remain viable, real estate firms are forced to structure their development in such a way that they appeal to the target customers of their clients such as ensuring the presence of car park, catering facility, entertainment, WI-FI and an appealing environment.

Increased use of e-commerce is also likely to turn the attention of real estate developers to warehousing and logistic a sector that has not been given much attention over the years. Developers are also presented with the opportunity of providing click and collect facilities all over town where customers can collect orders made online (Breheny 2013)

2.4 Empirical Studies

Studies over the years have identified macro-economic factors as the major factors affecting the performance of the real estate sector in Kenya with the effect of FDI being looked both in terms of the economy at large and specific sectors of the economy.

Using Foreign Direct investment and GDP data between 2004 and 2013 Muchira (2013) established that there is a positive relationship between Foreign Direct investment and GDP in Kenya with Foreign Direct investment encouraging higher enrolment in tertiary institute hence a growth in human capital, creating employment by lowering unemployment rate and alleviating poverty and transferring technology which enhances productivity of local firms. Following these benefits Muchira (2013) recommended policies that encourage Foreign Direct investment inflow through infrastructure development, opening up of economies, fighting corruption, doing away with insecurity and managing Foreign Direct investment to prevent any negative effects from Foreign Direct investment.

In analyzing the relationship between Foreign Direct investment and GDP and contributors of Foreign Direct investment using time series data between 1970 and

2010 Abala (2014) established that openness of the economy increases competiveness in the economy and provides accessibility to markets and exports. Further he indicated that openness of the economy has enabled access to new technology and management skills that has contributed to the growth of GDP. He also established that a high real GDP is the major determinant of Foreign Direct investment inflow as a high real GDP is an indicator of a large market size attributable to high demand for services and products that is appealing to market seeking Foreign Direct investment. Additionally, the study identified improved infrastructure and low indebtedness as a major determinant of Foreign Direct investment inflow.

Nyaga (2013) using Foreign Direct investment and GDP data between 1982 and 2012 found that there is a positive relationship between Foreign Direct investment and economic growth in Kenya. He established that Foreign Direct investment flow lead to increased imports than exports, investment than saving which lead to higher wages and productivity in labor. Also he associated Foreign Direct investment with employment creation thereby alleviating poverty in the host nation and stimulating productivity of local firms through transfer of technology and expertise. The study recommended research on the effect of Foreign Direct investment on specific sectors of the economy.

Muriuki (2013) in his study on the effect of interest rate volatility on the growth of real estate market in Kenya using data by KNBS and Hass consulting from 2008 to 2012 established that increased interest rates lead to a decrease in the growth of the real estate sector, further the study attributed the growth in the real estate sector to price inelasticity of demand for housing in that with low income earners moving to crowded homes, upper and middle house units purchase increases because MNEs and international organizations in Kenya whose staff consume executive apartments and stand-alone units push housing demand and prices up. The study recommended a research on the effect of Foreign Direct investment on the growth of the real estate sector.

Moronge & Loyford (2014) in their study of the relationship between economic factors such as housing demand, interest rate, transaction cost, inflation and performance of the real estate sector using descriptive analysis concluded that performance of the real estate sector decreases if there is a change in the transaction cost, interest rates or unit of inflation. Housing demand increase on the other led to an increase in the performance of the real estate sector. Pisit (2014) in assessing the impact of Foreign Direct investment on the production sectors using economic data from 2005 to 2013 established that Foreign Direct investment has a positive impact on the agriculture, manufacturing, retail trade, construction, wholesale and financial sector with the competitiveness of Thailand's manufacturing sector being attributed to the technical knowhow and capital provided by Foreign Direct investment in Thailand.

Bardhan & Kroll (2007) noted that service firms for real estate firms and brokerage firms for residential real estate in the US follow Multination's to developing nations to provide residential real estate services for expatriate population. Further they established that changing customer demands, risk diversification and higher returns were the motivating factors for real estate globalization. He& Zhu (2010) using 35 Chinese cities during period between 2002 and 2008 in his analysis of the determinants of Foreign Direct investment in real estate established that both local and foreign demand attracted foreign real estate developers. Also foreign investors in real estate preferred Chinese cities with foreign firms and international tourism as these individuals preferred to stay in hotels or apartments that provided offices or are close to offices, cities with heavy real estate investment and land market.

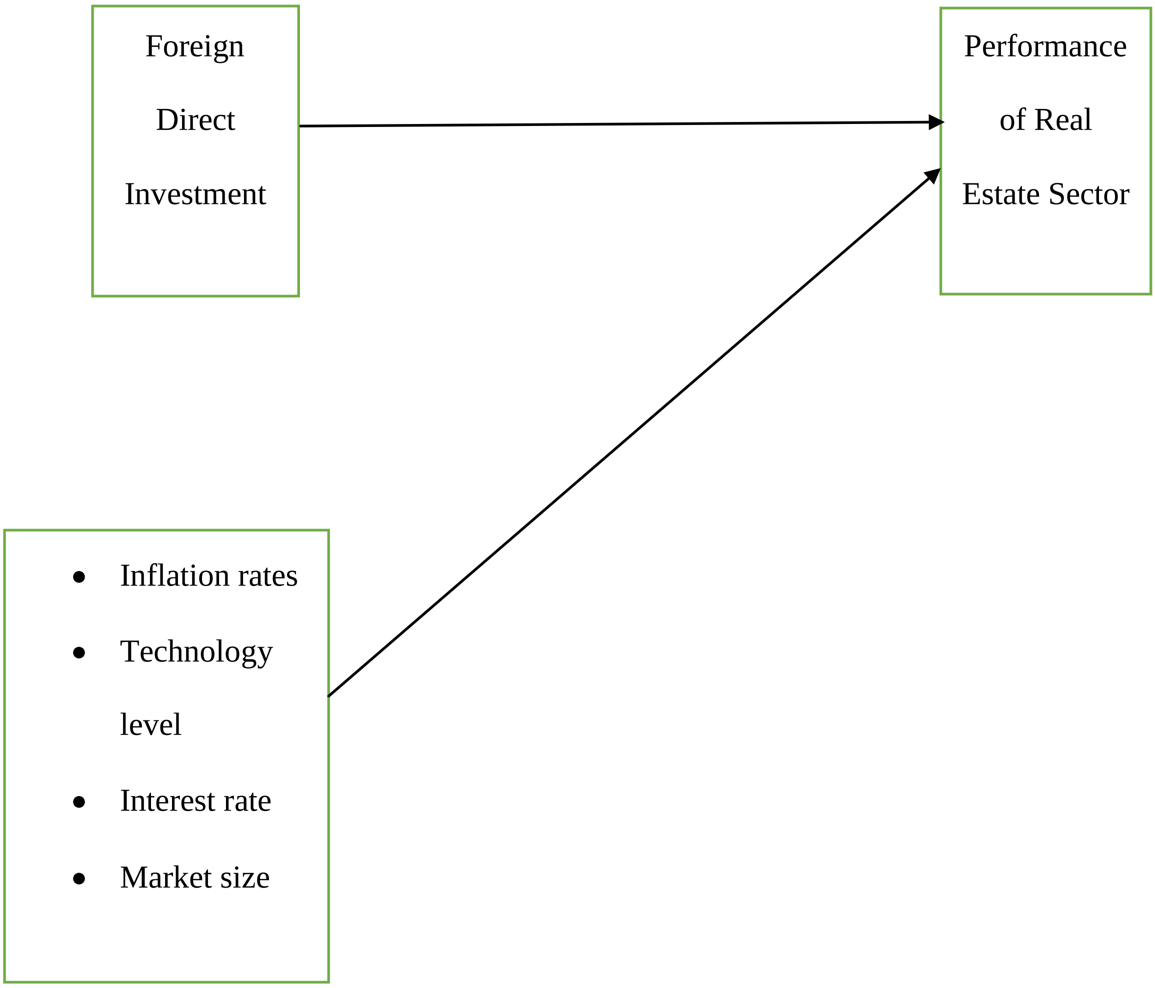
He *et al* (2009) in his investigation on determinants of Foreign Direct investment in China real estate industry and location pattern through spatial analysis of Foreign Direct investment in Chinese real estate development showed that coastal cities were very attractive to foreign real estate investors. Following Foreign Direct investment inflow in the cities during 1997-2007 He *et al* (2009) indicated that foreign investors in China real estate follow their customers to Chinese provinces and seek local profit opportunities. Foreign firms were also seen to avoid provinces with high labor and financial costs and prefer provinces with high housing prices; finally, the study indicated that foreign firms preferred provinces with developed services and land, good governance and house commercialization.

Moshirian and Pham (2002) established that as US stock market declines, there is more incentive for US investors to invest in foreign real estate. Using GMM method of estimation the results showed that US financial wealth, in Manufacturing and Banking, bilateral trade between US and major trade partners, foreign current account balance and US foreign financial liabilities contributes positively to expansion of US Foreign Direct investment in real estate abroad.

Using semi structured questionnaires on 12 foreign real estate developers operating in Shanghai in 2002 Zhu et al (2006) established that potential market, new market penetration, experience in a market, tax incentive by host country, investment diversification and potential to garner high returns on capital were the determinants for expanding in Shanghai real estate sector. By issuing questionnaires to property consultants in Southeast Asia cities in examining factors determining local and foreign property investments in South East Asian cities, Chin et al (2006) showed that sound and financial economic structure, restriction and regulation on foreign investors, strength and stability of economy, political stability were key with preference placed on taxation, currency stability, legal framework, government intervention, public infrastructure, market transparency and perceived corruption.

Fereidouni & Masron (2012) in their investigation of the relationship between Foreign Direct investment in other sectors and FREI using fixed effect panel data approach in selected emerging economies during 2000-2008 implied that Foreign Direct investment contributed to internalization of FREI in 16 emerging economies and that policy makers in these countries expects increased entrance of FREI investors and developers as Foreign Direct investment expands.

2.5 Conceptual Framework



2.6 Summary of Literature Review

The above reviewed literature has identified macro-economic factors namely GDP, interest rates and inflation as the major determinant of the performance of the real estate sector in Kenya with the conclusion that when the interest rates are high, growth in the real estate sector decreases , when inflation rates are high investment in real estate drops and when GDP is high investment in the real estate sector increases but the studies ignores how other economic factors such as Foreign Direct investment affect the Kenyan real estate sector performance. Foreign Direct investment has also been associated with a positive impact on the economy through employment creation, transfer of technology, improved management skills, high wages and labor with no clarification on whether these effects apply to all sectors of the economy.

Taxation by the host country, potential market in the host country, regulation on foreign investors, public infrastructure and new markets, Foreign Direct investment have been identified as key determinants of foreign investment in the real estate by the studies reviewed but the studies ignores the effect of foreign real estate investment on the host country's real estate sector. Finally, the reviewed studies have failed to present the effect Foreign Direct investment based on their objective abroad have on the specific sectors of the Kenyan economy, rather the effect of Foreign Direct investment has been generalized to the economy at large.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the methodology used to carry out research and analyze the data collected. The research design employed in the study is explained, the population with which the study was focused on, the data collection method that was used in gathering the data needed for the study and the data analysis techniques that was employed in analyzing the data collected.

3.2 Research Design

The research design employed in the study was descriptive research also referred to as correlation or observational research. Descriptive research involves the collection of data without changing the environment.

The research design was selected as it's suitable in demonstrating the relationship between variables a factor that is key since our study is intended to establish the relationship between Foreign Direct investment and performance of the real estate sector. The choice was also guided by the fact that the design involves the use of graphs and tables that eased the understanding of our findings to the users and helped reduce the large amount of data collected to a manageable amount.

Finally, since the design allows for use of various methods of collecting data, for example the use of both survey and secondary data, it provided a foundation for developing a broad view of our area of study.

3.3 Population

The population of the study was the entire Kenyan real estate sector as secondary data on the variables of study was readily available. The survey covered the period 2005 to 2015.

3.4 Data collection

The study employed the use of secondary data. Secondary data was obtained from published report by KNBS, Hass consultant, UNCTAD, Central Bank. Secondary data was relevant to the study as it presented a cost effective and time sensitive means of identifying developed trends that are relevant to the area of study.

3.5 Validity and Reliability

Validity relates to how efficiently the data estimates the population and reliability is concerned with the quality of the data collected. Test of significance namely ANOVA and F-test were employed in determining the validity of the tools used in the study while the reliability of the data was based on the survey of the efficiency of the sources in previous studies of a similar nature.

3.6 Data Analysis

Data analysis was carried out using SPSS to estimate the degree of correlation between the variables. Descriptive and inferential statistics such as measures of dispersion and central tendency were used to analyze data following which the data was presented in tables, graphs and charts. Trend analysis was also used to analyze the trend of Performance of real estate sector, inflation rates, interest rates and Foreign Direct investment for the period 2005 to 2015.

Multiple regression analysis was employed in expressing the causal effect relationship between Foreign Direct investment and the performance of the real estate sector in Kenya. The technique was suitable as it indicated a significant relationship between the variables under study and the strength of the impact of independent variable on the dependent variable.

The model was of the form:

$Y=\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$ Where:

Y=dependent variable (performance of the real estate sector)

X_1= foreign direct investment

X_2 = Inflation Rate

X_3=Interest Rate

β_0=regression constant

β_1 , $\beta_2\beta_{,3}$=(regression coefficient) change in Y for a unit change in X ε

=error in term

3.7 Description of variables

This section describes the variables that constituted the conceptual framework and how the variables were measured to facilitate the study.

3.7.1 Performance of the real estate sector

In the context of this study performance of real estate sectors is the growth in real estate sector investment. Growth in real estate sector investment was measured by percentage change in Hass composite average sales index obtained from Hass Consultant between the periods of 2005-2015 available quarterly. The composite sales index represents all detached properties; semi detached properties, and apartments offered for sale in Kenya in a period.

3.7.2 Foreign Direct Investment

Foreign direct investment refers to cross border investment made by a resident in one economy with the objective of establishing a lasting interest in an enterprise that is resident in an economy other than that of the investor (Bjorvatvatn 2000). This study covered all forms of Foreign Direct Investment which were measured by Foreign Direct investment inward stock of the period 2005 to 2015 from UNCTAD data.

3.7.3 Inflation Rate

Inflation is the sustained increase in the general price level of goods and services in an economy over a period of time (Blanchard, 2000). It was measured by the percentage change in the average consumer price index available quarterly at the Kenya National Bureau of Statistics.

3.7.4 Interest Rate

Interest rates refer to the cost of hiring money or credit. It can be defined as the amount of interest per unit of time, (Udoka & Anyingang, 2012). It was measured by average weighted interest rates available quarterly at the Kenya National Bureau of Statistics.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results of data analysis of the collected data from the field. Data for the study was exclusively gathered from secondary sources and the analysis was done with the aid of Statistical Package for Social Sciences (SPSS). The findings were presented using Figures, Tables, Means and standard deviations.

4.2 Data analysis and presentation

The gathered data covered the period 2005-2015. Secondary data was presented in excel spreadsheet and analyzed with the aid of SPSS version 2.0.

4.3 Descriptive Statistics

The study sought to investigate the effect of Foreign Direct investment on the performance of the real estate sector in Kenya. The findings were presented with the help of standard deviation and means.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Performance of the real estate sector	44	.00	9.40	2.5068	2.02558
FDI	44	4.46	9.60	6.5412	1.09947
Inflation rates	44	3.33	29.13	10.5495	6.79438
Interest Rates	44	12.22	20.21	15.2643	2.08404

From Table 4.1, the maximum value of performance of real estate sector in Kenya was 9.40% while the minimum value was 0.00% with a mean of 2.5068% and standard deviation of 2.02558%. The findings indicated that real estate sector in Kenya is still growing. Foreign direct investment on the other hand had a minimum value of 4.46% while the maximum was 9.6% with a mean of 6.5412% and standard deviation of 1.09947%. The inflation rate had a minimum value of 3.33%, a maximum value of 29.13% with a mean of 10.5495% and standard deviation of 6.7943%. The interest rate on the other hand had a minimum value of 12.22% with a maximum value of 20.21% while the mean was 15.2643%and standard deviation was 2.084%.

4.4 Trend Analysis

The study adopted trend analysis so as to analyze the trend of real estate performance, Foreign Direct investment, inflation and interest rate in the period 2005 to 2015. The findings are summarized in subsequent sections.

4.4.1 Foreign Direct Investment FDI

The study sought to determine the trend of foreign direct investment expressed as a percentage of GDP in Kenya over the period of study. The findings are summarized

byfigure.4.1

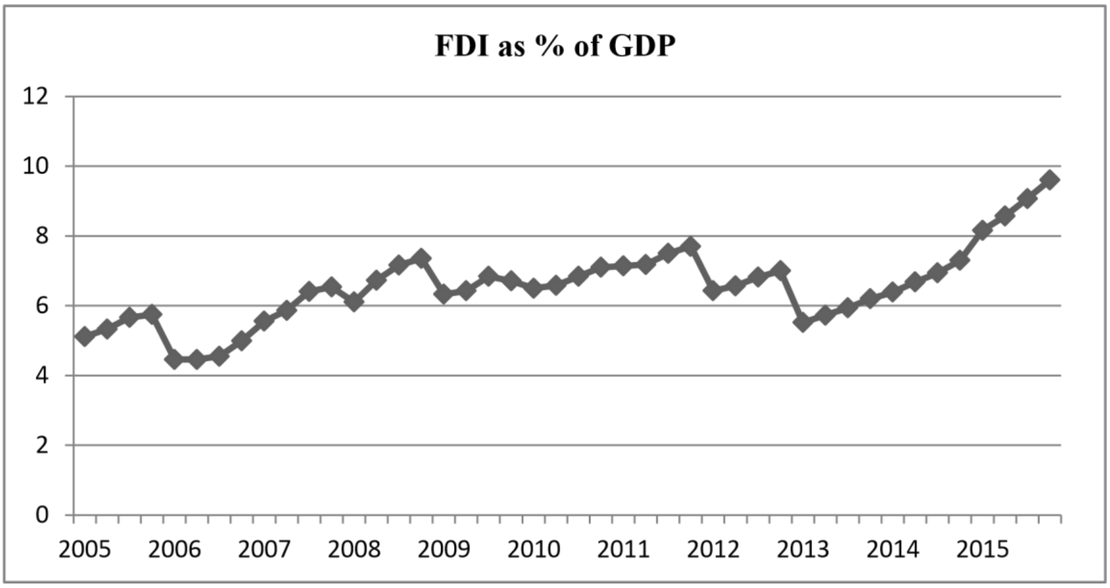


Figure 4.1: Foreign Direct Investment FDI

The findings from Figure 4.1 indicate the trend in the growth in Foreign Direct investment. The findings indicate that Foreign Direct investment growth has generally been fluctuating over the period under consideration. The year 2006 had the least value of Foreign Direct investment as determined by % of GDP of 4.995%. This was followed by a sharp consistent increase in value of Foreign Direct investment reaching a peak in 2007.Between 2010 and 2012 and between 2013 and 2015 there was a consistent growth in FDI stock with FDI stock reporting the highest value in 2015.

4.4.2 Interest Rate

The study further sought to determine the behavior of interest rate during the period of study. The findings were presented in Figure 4.2

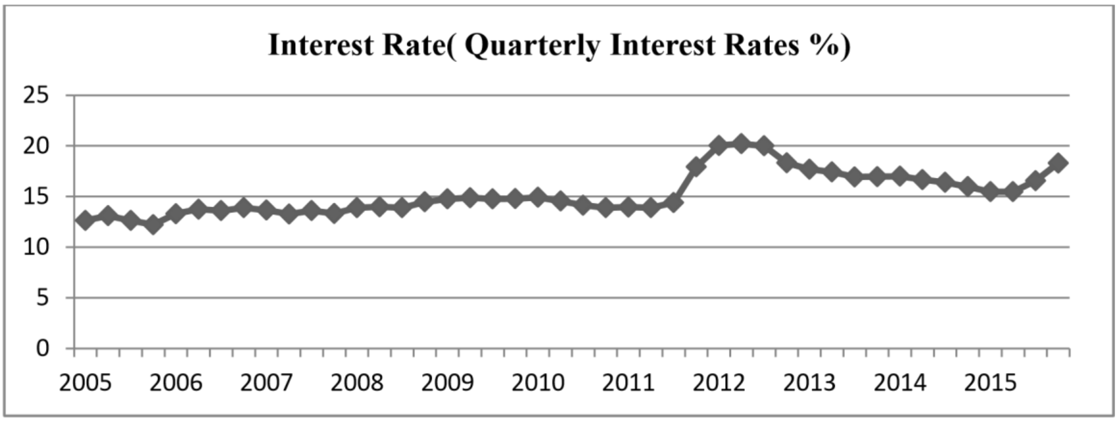


Figure 4.2: Interest Rate

From Figure 4.2, the interest rate has been increasing from 2005 reporting a slight dip during the last quarters of 2005 and 2007. Between 2010 and 2012 and between 2013 and 2015 there was a pronounced decrease in interest rate presenting a suitable environment for borrowing. The decrease can partly be explained by the introduction of Credit reference bureau in 2010 that enhanced credit sharing mechanisms and therefore reducing the cost of credit represented by interest rates. The highest increase in interest occurred between 2011 and 2012.

4.4.3 Inflation Rate

The study sought to investigate the change in inflation rate during the period under study in Kenya. The findings of trend analysis were presented in Figure 4.3

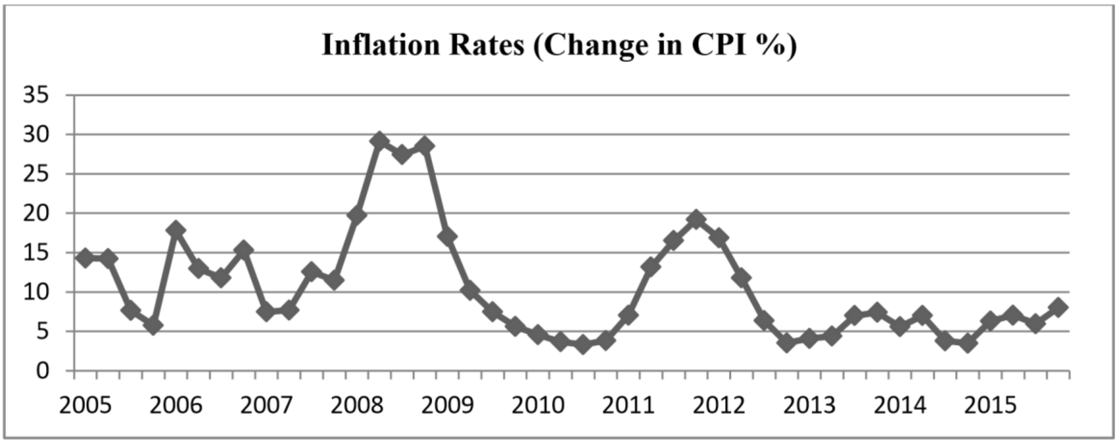


Figure 4.3: Inflation Rate

From figure 4.3 Inflation rates have been fluctuating within the period under review. However, between 2009 and 2011 and between 2012 and 2013 a pronounced dip in inflation rates was witnessed. These were conducive operating environment for businesses. The year 2008 and 2011 on the other hand witnessed the highest rise in inflation rates with 2008 reporting a rise from 19.70% in quarter one to 28.50% in quarter four and 2011 reporting a rise from 7.05% in quarter one to 19.19% in quarter four. This could partly be explained by the effect of the post-election violence that was witnessed in Kenya after the 2007 disputed elections and uncertainties in relation to 2012 elections outcome.

4.4.4 Performance of Real Estate Sector

Finally, the study sought to establish the trend in the performance of real estate sector in Kenya as measured by growth in real estate investment. The findings of the trend analysis were generalized in Figure 4.4.

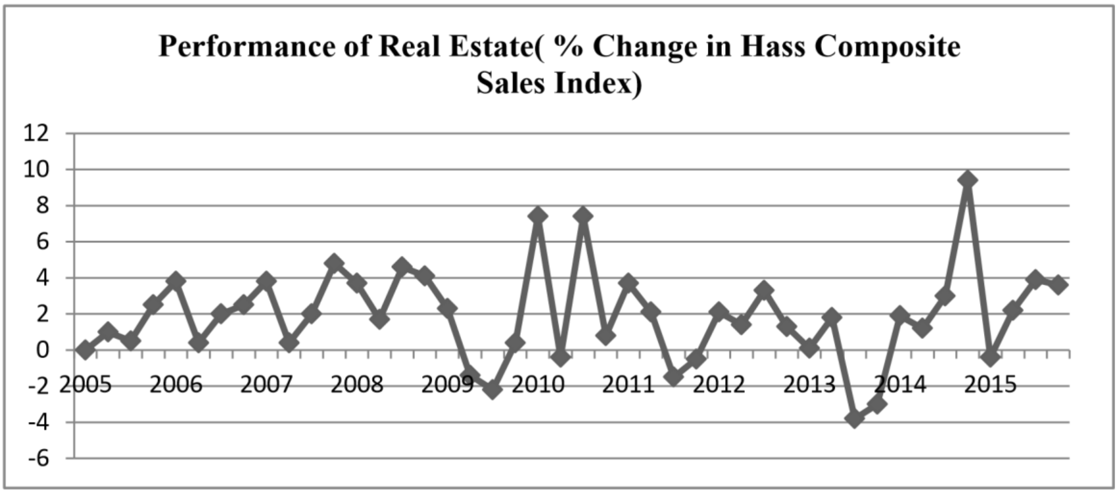


Figure 4.4: Performance of Real Estate Sector

As per figure 4.4 real estate performance has been a fluctuating from 2005 all the way to 2015. The highest growth in real estate sector performance was reported between 2005 quarter three and 2006 quarter two, 2006 quarter three and 2007 quarter one, 2007 quarter two and 2007 quarter four, 2010 quarter one and 2010 quarter two, 2009 quarter two and 2009 quarter four, 2013 quarter three and 2014 quarter one, 2014 quarter two and 2014 quarter four and between 2015 quarter one and four. The highest decline in the performances were reported between 2007 quarter four and 2009 quarter three,2010 quarter one and 2010 quarter two,2010 quarter three and quarter four,2011 quarter one and 2011 quarter three,2012 quarter three and 2013 quarter one,2013 quarter two and 2013 quarter three and between 2014 quarter fourth and 2015 quarter one. The decline on the performance of real estate sector between the first and fourth quarter of 2008 and between the third and fourth quarter of 2012 could be attributed to 2008 post-election violence and uncertainties regarding election outcomes of 2012. Performance of real estate sector reported the highest value during the fourth quarter of 2014 and the lowest value during the third quarter of 2013.

4.5 Regression Analysis

The dependent variable performance in real estate sector was examined against three variables namely Foreign Direct investment, inflation and interest rates. The analysis was carried out at 5% confidence level. The significance of the three variables in the model was examined by comparing the probability value obtained against the confidence level of 0.05. The variables were considered significant if the probability value was less than confidence level. Additionally, F-table value was compared with the F-value of regression analysis. Variables were considered to be significantly associated with any change on the dependent variable if the F-table value was less than the regression analysis value.

4.5.1 Model summary

To ascertain the level of performance in real estate sector that is attributable to Foreign Direct investment, inflation and interest rate, coefficient of determination arising from regression as depicted by table 4.2 was used. Coefficient of determination presents the degree by which changes in dependent variable can be explained by change in the independent variables under study.

The findings of multiple regression analysis conducted to ascertain relationship between Foreign Direct Investment and Performance of real estate sector in Kenya was summarized in subsequent Tables.

Table 4.2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.70[a]	.49	.45	0.04791

From Table 4.2, the value of R is 0.70, R square is 0.49 and adjusted R square is 0.45. These findings indicated that the three variables contributed to 49% change in the performance of real estate sector in Kenya. Further, a strong relationship between the variables was revealed by the coefficient of determination (R) of 0.70.

4.5.2 Regression coefficient

Analysis results resulted into a model coefficient and statistics depicted in the table 4.4 below

Table 4.3: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.379	2.754		.501	.619
FDI	.427	.305	.232	1.400	.169
inflation rates	-.014	.047	-.048	-.306	.761
Interest Rates	-.099	.164	-.102	-.604	.549

The results of the regression analysis presented the below equation to explain the relationship between performance of real estate sector and Foreign direct investment, inflation, interest:

$Y=1.379 + 0.437X_1 - 0.014X_2 - 0.099X_3 + \varepsilon$

Y is Performance of real estate sector, X_1 X_2 X_3 represents foreign direct investment, interest rate and inflation rate respectively while ε is an error term. From the above model real estate performance would be 1.379 if all the other factors are held constant. The change in performance of real estate sector resulting from the change in each of the independent variable is equal to the coefficient of each of the independent variables meaning, a unit increase in FDI holding other variables constant would increase real estate performance by 0.437, a unit increase in interest rate holding other variables constant would lead to a decrease in performance of real estate sector by 0.014 and a unit increase in inflation rate holding other variables constant would lead to a decrease in performance of real estate sector by 0.099. The positive value of the Foreign Direct investment coefficients depicts a strong positive relationship between performance of real estate sector and Foreign Direct investment. All the p values were greater than 0.05 confidence level indicating that individually, the three variables were not statistically significant. These findings concur with the findings of Moronge & Loyford (2014) who in their study of the relationship between economic factors such as housing demand, interest rate, transaction cost, inflation and performance of the real estate sector using descriptive analysis concluded that performance of the real estate sector decreases if there is a change in the transaction cost, interest rates or unit of inflation.

4.5.3 Test of Regression Model Significance

Analysis of variance was undertaken to test the significance of the model.

Table 4.4: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	86.71	3	28.90	6.89	.004[b]
Residual	167.757	40	4.194		
Total	**176.428**	**43**			

The findings of the ANOVA revealed a probability value of 0.004 making it a significant model in predicting the relationship between the variables under study as it was less than the confidence level of 0.05. This was further echoed by F-test statistic calculated value of 6.89 which was more than the F-critical (from table) value of 2.32. Since F calculated was greater than F critical (6.89>2.32), this was a clear indication that the overall multiple regression model was statistically significant.

4.6 Summary of Findings and Interpretations

All the variables under review reported a fluctuating trend during the period under study. Inflation rates reported the highest drop in the years 2009, 2011, 2012 and 2013 and the highest rise in the years 2008 and 2011. Performance of real estate sector on the other hand reported the highest value in the final quarter of 2014 and the lowest value during the third quarter of 2013. On average, the performance of real estate sector reported the highest decline of 11.62% between 2009 and 2010 and 7.33% between 2011 and 2012. The highest growth in real estate sector performance occurred between 2014 and 2015 at 9.55% and between 2008 and 2009 at 5.23%. Further Foreign Direct investment reported the highest growth between 2010 and 2011 and between 2012 and 2015. Interest rates fell significantly between 2010 and 2011 and between 2013 and 2015 and rose adversely between 2011 and 2012.

It's important to note that Kenya held elections in 2007 and 2013 which lies within the period of study. Uncertainty regarding post-election outcome could partially explain the decline in the performance of real estate sector between 2011 and 2012 and in 2009 as well as the least growth reported by Foreign Direct investment in 2006. Also, the high inflation rates in 2008 can be explained by the global financial crisis of 2008.With problems of liquidity on the rise due to the almost collapse of major banks, inflation rates rose in response to the liquidity deficit. Further, Kenya introduced Credit Reference Bureau in 2010 a move that could partially explain the decline in interest rates during the period 2010 to 2011 and between 2013 and 2015, as the transparency associated with credit information sharing reduced the banks desire to keep the interest high due to uncertainties regarding customers credit worthiness.

The study established that there is a positive relationship between performance of real estate sector and FDI and a negative relationship between inflation, interest rates and performance of real estate sector denoted by positive FDI coefficient and negative inflation and interest rates coefficients. Additionally, R-coefficient value emanating from regression analysis was 0.70 further highlighting a strong relationship between the three independent variables and performance of real estate sector. The study also revealed that FDI, inflation and interest rate combined contribute to 49% of any change in the performance of the real estate sector.

With the coefficients of Foreign Direct investment in the regression model populating positive values and coefficient of inflation and interest rates populating negative values, it can be said that any change in the independent variables FDI results into a positive change in the performance of the real estate sector and any change in, inflation and interest rates results to a negative change in the performance of the Kenyan real estate sector. This argument was further supported by ANOVA which established a p-value of 0.004 that proved the statistical significance of the regression model in examining the relationship between performance of real estate sector and the independent variables FDI, inflation and interest rates. On the other hand, Foreign Direct Investment, inflation and interest rates were found to be statistically insignificant individually, this was evidenced by Foreign Direct Investment p-values of 0.169, Inflation rate p-value of 0.761 and interest rates p-value 0.549 which were more that the confidence level of 0.05.

CHAPTER FIVE: SUMMARY, CONCLUSION, RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the analyzed data from the field on each variable of the study. The chapter also presents the conclusion of the study based on research findings. The chapter further presents the recommendations of the study and the areas of further research to other scholars, academicians and future researchers.

5.2 Summary of the Findings

This study intended to establish the effect of FDI on the performance of the Kenyan real estate sector. Descriptive research was used with secondary data on annual growth in real estate investment from Hass Consultant, Foreign Direct Investment stock data from UNCTAD and data on controllable variables interest rates and inflation rates from KNBS. The period under review was 2005-2015.

Data gathered was summarized using SPSS and Excel and findings presented in graphs and tables. Inferential statistics namely R, R-square, F-test and P-test were obtained from regression analysis. These statistics aided in ascertaining the strength of the relationship between the variables of study and the statistical significance of the model of study.

The maximum value of performance of real estate sector in Kenya was reported as 9.40% while the minimum value was 0.0%with a mean of 2.5068%and standard deviation of 2.02558%. Real estate sector performance reported a fluctuating trend within the period under study. However, the performance of real estate in Kenya was poorest in the third quarter of 2009 as indicated by a rate of -3%. Quarter 4 of year 2014 saw the great performance of real estate sector as indicated by about 10%.

Foreign direct investment on the other hand had a minimum value of 4.46%and a maximum value 9.6% with a mean of 6.5412 % and standard deviation of 1.09947%. The study further established a fluctuating trend in Foreign Direct investment growth over the period under consideration with the years 2013 to 2015 reporting an increasing Foreign Direct Investment.

The inflation rate had a minimum value of 3.33%, a maximum value of 29.13%, a mean of 10.5495% and standard deviation of 6.7943%. The study also revealed that the inflation rate has been fluctuations between 2005 and 2015 with the highest value in 2008 and 2009.This could partly be due the effect of the post-election violence that was witnessed in Kenya after the 2007 disputed elections. Inflation was at its lowest in the first quarter of 2013 and 2015 which was a conducive operating environment for businesses although it was only short-lived.

Interest rate reported a minimum value of 12.22%, a maximum value of 20.21%, a mean of 15.2643%and a standard deviation of2.084%. Further the findings indicated an increase in interest rate between 2005 and 2011. However, from 2011 all through to 2015 interest rates registered a decrease with an off peak of 11.50 % in 2015. This can partly be explained by the introduction of Credit reference bureau in 2010 that enhanced credit sharing mechanisms and therefore reducing the cost of credit represented by interest rates.

The findings of the study further established that that 49% change in the performance of real estate sector in Kenya is explained by Foreign Direct Investment, interest rates and inflation rates. Furthermore, when all the variables are held constant, performance of real estate sector was estimated at 0.138, a unit increase in Foreign Direct

Investment holding other variables constant was associated with 0.437 increase real estate performance, a unit increase in interest rate holding other variables constant resulted into 0.014 decrease performance of real estate sector and a unit increase in inflation rate holding other variables constant related to 0.099 decrease performance of real estate sector. Findings on interest rates conjured with the findings of Muriuki (2013) in his study on the effect of interest rate volatility on the growth of real estate market in Kenya using data by KNBS and Hass consulting from 2008 to 2012. Muriuki (2013) established that increased interest rates lead to a decrease in the growth of the real estate sector attributing the growth in the real estate sector to price inelasticity of demand for housing as with low income earners moving to crowded homes, upper and middle house units purchase increases because MNEs and international organizations in Kenya whose staff consume executive apartments and stand-alone units' push housing demand and prices up. The p Value of 0.004 meant multiple regression model was significant in explaining the relationship between FDI and performance of real estate sector. These findings were echoed by F test which gave a value of 6.89. However, individually, the variables were not statistically significant as their P- values were greater than the confidence level of 0.05.

5.3 Conclusion

In light of the results of the analysis, there is a strong positive relationship between FDI, interest, inflation and performance of the real estate sector as depicted by R of 0.70 and R square of 0.49. With FDI having a positive coefficient and inflation and interest rates having a negative coefficient, the study reveals that an increase in FDI will lead to an increase in real estate sector performance and an increase in inflation and interest rates will lead to a decrease in the performance of the real estate sector. However independently, the three variables were established to be statistically insignificant. The study concluded that foreign direct investment, interest rates and inflation rates all affect the performance of real estate sector in Kenya. More specifically, Foreign Direct investment had the greatest effect on real estate at a coefficient of 0.437, followed by inflation rate with a coefficient of 0.099 and interest rates had the least effect on real estate performance at a coefficient of 0.014. Together the three independent variables were identified to contribute to 49% of the performance of the real estate sector in Kenya. These findings concur with Nyaga (2013) whom using FDI and GDP data between 1982 and 2012 found that there is a positive influence of FDI in the economy as it leads to increased investment as opposed to savings.

Additionally, these findings were found to be in agreement with the findings of Albenson et al (2005), who established that high inflation rates tend to lead to an increase in mortgage interest rates charged by lenders as compensation for the expected erosion in the value of their claim leading to reduced demand for housing as well as investment in real estate sector. Finally, the results on the effect of inflation were consistent with those of Yu Xiao (2006) who found out that when interest rates are high the final project is delivered at a higher cost due to high cost of labor, material and money. Following this developer passes the high cost to customers' hence higher housing prices. This in return discourages new entries lowering growth in investment in the sector.

The positive relationship between Foreign Direct Investment and Performance of Real Estate Sector indicates that increased foreign direct investment increases investment in the real estate sector.Increased Foreign Direct Investment is associated with increased demand for housing in terms of housing demand for its expatriatepopulation and offices, this is likely to result into increased investment in the sector as firms attempt to capture the additional demand created by multinational. Moreover, with foreign firms expanding their operations to the host nation, they contribute to increased investment in the host nations real estate sector from foreign real estate investors as these firms attempt to meet the demand foreign firms create. These arguments aligns with those of Moronge& Loyford (2014) in their study of the relationship between housing demand and performance of the real estate sector and those of Bardhan & Kroll (2007) who established that foreign real estate firms follow multinational firms to host nations to provide residential housing for the expatriate population.

5.4 Recommendations

The study recommends that the national government ought to set a proper and conducive climate for both foreign and local investors. There is need to create incentives for foreign investor in terms of tax holidays, tax reliefs and tax exemptions. This move will attract more Foreign Direct Investment which will in return enhance the economy through increased employment and increased investment in the Kenyan real estate sector.

This study also recommends that top management of financial institutions with the support of the Central Bank of Kenya and treasury should ensure attractive lending interest rates on mortgages to attract more real estate developers. Financial institutions in Kenya should strike a balance between the retail lending and real estate lending to ensure alternative means of investing in the real estate sector aside from the use of Mortgage and cash.

Regulators should put in place strong monetary and fiscal policies to ensure stability of inflation rates and interest rates and tominimize any negative effects on the performance of real estate sector .

5.5 Limitations of the Study

The study findings were based on secondary data, use of primary data alongside primary data would have enhanced the findings of the study. Additionally, the data used for the study were obtained from single sources, an additional source to verify the accuracy of the data obtained would have contributed further to the validity of the findings.

Finally, collection and summary of the quarterly data on the variables under study was time consuming and hectic. Navigating between work and carrying out the research also proved to be a challenge to the researcher especially since time was limited.

5.6 Suggestions for Further Research

This study was carried out to establish the effect of FDI on performance of real estate sector. The study relied mainly on the secondary data collected using a data collection sheet. The study covered three variables: FDI, interest rates and inflation rates.

Future studies on effect of FDI on the performance of real estate sector should incorporate the use of primary data or even empirical reviews. Also studies should be carried out on the effect of FDI on other sectors of the economy such as the financial sector, manufacturing and retail sector in Kenya. Additionally, a research on the effect of FDI on various sectors of the economy should be carried out with the study focusing on the objective of FDI abroad rather than generalizing the study to FDI in general.

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APPENDICES

Appendix 1. Data used

YEAR	QUARTERS	PERFORMANCE OF REAL ESTATE SECTOR (% GROWTH IN COMPOSITE SALES INDEX)	FOREIGN DIRECT INVESTMENT STOCK (% OF GDP)	INFLATION RATES (%)	AVERAGE WEIGHTED INTEREST RATES(%)
2005	**Quarter one**	0.0	5.11	14.30	12.65
2005	**Quarter two**	1.0	5.33	14.23	13.10
2005	**Quarter three**	0.5	5.66	7.67	12.63
2005	**Quarter four**	2.5	5.747	5.77	12.22
2006	**Quarter one**	3.8	4.46	17.80	13.30
2006	**Quarter two**	0.4	4.46	12.97	13.75
2006	**Quarter three**	2.0	4.55	11.80	13.60
2006	**Quarter four**	2.5	4.99	15.30	13.90
2007	**Quarter one**	3.8	5.56	7.47	13.66
2007	**Quarter two**	0.4	5.87	7.70	13.28
2007	**Quarter three**	2.0	6.41	12.57	13.60
2007	**Quarter four**	4.8	6.536	11.47	13.33
2008	**Quarter one**	3.7	6.11	19.70	13.89
2008	**Quarter two**	1.7	6.72	29.13	13.99
2008	**Quarter three**	4.6	7.17	27.43	13.89
2008	**Quarter four**	4.1	7.35	28.50	14.47
2009	**Quarter one**	2.3	6.33	17.03	14.77
2009	**Quarter two**	-1.4	6.43	10.20	14.88
2009	**Quarter three**	-2.2	6.84	7.47	14.76
2009	**Quarter four**	0.4	6.71	5.63	14.79
2010	**Quarter one**	7.4	6.50	4.58	14.92
2010	**Quarter two**	-0.4	6.58	3.68	14.55
2010	**Quarter three**	7.4	6.84	3.33	14.15

2010	**Quarter four**	0.8	7.1	3.84	13.89
2011	**Quarter one**	3.7	7.14	7.05	13.96
2011	**Quarter two**	2.1	7.18	13.16	13.90
2011	**Quarter three**	-1.5	7.50	16.51	14.41
2011	**Quarter four**	-0.5	7.7	19.19	17.92
2012	**Quarter one**	2.1	6.43	16.87	20.05
2012	**Quarter two**	1.4	6.57	11.78	20.21
2012	**Quarter three**	3.3	6.82	6.38	20.00
2012	**Quarter four**	1.3	7.0	3.53	18.32
2013	**Quarter one**	0.1	5.52	4.10	17.70
2013	**Quarter two**	1.8	5.73	4.40	17.43
2013	**Quarter three**	-3.8	5.94	7.00	16.94
2013	**Quarter four**	-3	6.2	7.40	16.96
2014	**Quarter one**	1.9	6.39	5.60	17.0
2014	**Quarter two**	1.2	6.68	7.00	16.67
2014	**Quarter three**	3.0	6.94	3.80	16.40
2014	**Quarter four**	9.4	7.3	3.50	15.97
2015	**Quarter one**	-0.4	8.16	6.31	15.47
2015	**Quarter two**	2.2	8.57	7.05	15.48
2015	**Quarter three**	3.9	9.07	5.97	16.57
2015	**Quarter four**	3.6	9.6	8.01	18.30

Source: Central Bank of Kenya, Kenya National Bureau of Statistics, UNCTAD and Hass consultant.

Appendix 2. Quarterly composite sales index in Kshs . (Representative of the level of investment in the Kenyan Real Estate Sector)

YEAR	Quarter 1	Quarter 2	Quarter 3	Quarter 4
2015	24,993,714	25,543,576	26,539,775	27,495,207
2014	23,627,341	23,769,105	24,505,947	25,094,090
2013	23,243,076	23,777,667	23,421,002	23,186,792
2012	21,359,665	21,637,341	22,740,845	23,127,439
2011	21,048,753	21,448,679	21,234,192	21085553
2010	20,433,762	18,864,082	19,348,984	20,161,641
2009	27,715,396	20,425,380	19,996,447	20,080,317
2008	18,285,811	18,596,670	19,452,117	20,249.653
2007	16,430,104	16,495,824	16,825,741	17,633,377
2006	15,079,440	15,139,757	15,442,553	15,828,616
2005	13,962,930	14,102,559	14,173,072	14,527,398

Source: Hass Consultant

Appendix 3. Average annual Performance of the Real Estate Sector (Kshs)

YEAR	Asking price of all detached, semidetached and apartment for sale in Kenya(Kshs)	Average annual growth in real estate sector performance (%)
2000	7,168,007.05	
2005	10,664,861.99	04.6149
2006	11,569,152.65	08.4792
2007	12,875,039.22	11.2877
2008	14,892,006.66	15.6657
2009	18,003,710.00	20.8951
2010	19,672,606.09	09.2697
2011	22,014,617.08	11.9049
2012	23,014,617.08	04.5773
2013	24,401,312.29	05.9899
2014	24,413,512.95	00.050
2015	26,757,210.19	09.600

Source: Hass Consultant

Appendix 4. Annual weighted average interest rate (%)

YEAR	Weighted Average annual interest rate (%)
2005	12.65
2006	13.64
2007	13.33
2008	14.06
2009	14.80
2010	14.38
2011	15.05
2012	19.65
2013	17.26
2014	16.51
2015	16.46

Source: Central Bank of Kenya

Appendix 5. Annual inflation rate (%)

YEAR	Average annual Inflation rate (%)
2005	10.48
2006	14.47
2007	9.80
2008	26.19
2009	10.08
2010	3.86
2011	13.98
2012	9.64
2013	5.73
2014	4.98
2015	6.84

Source: Kenya National Bureau of Statistics

Appendix 6. Annual Foreign direct investment inward stock (US $ Millions)

YEAR	Foreign direct investment stock (US $ Millions)	FDI stock in(% of GDP)
2005	1113	5.747
2006	1164	4.995
2007	1893	6.536
2008	1989	7.352
2009	2104	6.710
2010	2282	7.100
2011	2617	7.700
2012	2876	7.000
2013	3390	6.200
2014	4441	7.300
2015	5878	9.600

Source: UNCTAD data.

Appendix 7. Average quarterly GDP (US $ millions)

YEAR	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
2005	17226	17966	19080	19366
2006	20806	20806	21243	23303
2007	24625	26004	28396	28964
2008	22466	24757	26367	27053
2009	29590	30034	31986	31359
2010	29395	29778	30939	32115
2011	33335	33535	35010	35956
2012	36,891	37702	39135	40192
2013	41679	43262	44820	46792
2014	48944	51147	53142	55905
2015	52047	54649	57819	61230

Source: Kenya National Bureau of Statistics