FOREIGN DIRECT INVESTMENT, INTERNATIONAL TRADE AND ECONOMIC GROWTH IN KENYA

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November 2015.
DECLARATION

This research project is my original work and has not been presented for award of a degree in any other University.

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DEDICATION

This study is dedicated to my late father, Nelson Maranga, my mother Mary Kemunto my lovely wife Theopista Nyabiage and our son Andrew Maranga for their inspiration.
ACKNOWLEDGEMENT

I'm sincerely thankful to my supervisors Dr. Perez Onono and Dr. Kennedy Ocharo for their commitment, encouragement, guidance and support in the writing of this research project. Further I appreciate the support I received from my family members while pursuing this program. Special thanks to all lecturers of the School of Economics, their wholesome support and guidance during the Masters programme. Above all I would like to thank all my classmates for their encouragement and contribution while pursuing the program.
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ABBREVIATIONS AND ACRONYMS

AGOA  African Growth and Opportunity Act
COMESA  Common Market for Eastern and Southern Africa
EAC  East Africa Community
ED  External Debt Stock
EPC  Export Promotion Council
EPZ  Export Processing Zone
EPZA  Export Processing Zone Authority
ERS  Economic Recovery Strategy
EX  Exports
FDI  Foreign Direct investment
FIPA  Foreign Investment Protection Act
GDP  Gross Domestic Product
IGAD  Inter-governmental Authority on Development
IM  Imports
IMF  International Monetary Fund
IPC  Investment Promotion Centre
KenInvest  Kenya Investment Authority
MDGs  Millennium Development Goals
MFN  Most Favoured Nation
MNC  Multinational Corporations
OECD  Organisation for Economic Co-operation and Development
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>OLS</td>
<td>Ordinary Least Squares</td>
</tr>
<tr>
<td>SAP</td>
<td>Structural Adjustment Programmes</td>
</tr>
<tr>
<td>TR</td>
<td>Tax Revenue</td>
</tr>
<tr>
<td>UNACTAD</td>
<td>United Nations Conference on Trade and Development</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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OPERATIONAL DEFINATION OF TERMS

Economic Growth: This refers to the average annual increase in production of goods and services in a country.

Foreign Direct Investment: Refers to the inflows of investment to acquire a lasting management interest (10 per cent or more voting power) in an enterprise operating in an economy other than that of the investor.

Globalization: Refers to the process in which people, corporates and governments of different countries interact and integrate.

International Trade: Is the exchange of capital, goods and services across international borders or territories.
ABSTRACT

Foreign Direct Investment and international trade have remained vital for many governments, with a number of policies put in place to promote them. This is due to the theoretical provisions which have pointed that any increase in foreign direct investment and international trade has positive and significant effects on the economic growth of the host country. Based on these theories a number of empirical studies have been carried out to determine the effects of foreign direct investment and international trade on economic growth in the host countries including Kenya. However, findings from the respective studies have presented mixed findings and as such no clear conclusion has been drawn. Therefore the objective of this study is to determine the effects of foreign direct investment and international trade in Kenya following continued implementation of policies geared towards attracting foreign direct investment and promotion of international trade. Secondary data obtained from World Bank Development Indicators, statistical abstracts and economic surveys was analysed. The study used the autoregressive distributed lag approach in regressing real gross domestic product growth on foreign direct investment, exports, imports, tax revenue and external debts for the period 1970-2013. From the results the foreign direct investments and natural logarithm of exports in gross domestic product of Kenya have a positive and significant effect on economic growth. On the other hand the results show that; imports, lagged value of tax revenue and external debt stock as components of gross domestic product had a negative and significant effect on economic growth. From the findings it is evident that the government should consider pursuing policies geared towards promoting foreign direct investments following the fact that it has a positive effect on economic growth. Equally, it is evident that exports play a vital role in boosting Kenya’s economic growth and as such any policies put in place by the government to make Kenya’s exports competitive should be encouraged. However, there is need for government to control its external borrowing owing to the fact that the results show that external debt as a component of gross domestic product has a negative and significant effect on economic growth.
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

1.1.1 Importance of FDI and International Trade in Growth of Countries

Success of most governments including Kenya is measured on its overall achievement on economic growth. In this regard most governments aim at formulating policies that are geared towards ensuring a high and sustainable economic growth. Sustainable economic growth in any country has remained important because of its spill over effects on incomes and employment to the citizens of that country. Sustainable economic growth may lead to improved standards of living and overall well-being of people within the country.

Kenya, through the economic pillar in its vision 2030 aims at becoming an industrialized middle income country providing high quality life for all its citizens by the year 2030 through an economic development programme, covering all the regions of Kenya with a target to attain an average Gross Domestic Product (GDP) growth rate of 10% per annum (Republic of Kenya, 2007). Sustainable economic growth is achieved through an increase in the productive capacity of an economy as a result of which, the economy is capable of producing additional quantities of goods and services. One of the ways this can be attained is through embracing globalization which entails participation in international trade and Foreign Direct Investment (FDI). For this reason the effects of globalization on economic growth has received a lot of attention as it has
increasingly become clear that the move towards more integrated world markets has opened a wide potential for greater growth, and presents an unparalleled opportunity for developing countries to raise their living standards (Ouattara, 1997).

According to Organisation for Economic Co-operation and Development (OECD, 2002) FDI and participation in international trade have been considered a critical factor in achieving sustainable economic growth. In most developing countries including Kenya, FDI remains an important vehicle of technology transfer. This has led to increase in productivity and competitiveness for the host countries. Further, FDI stimulates domestic investment and facilitates improvements in human capital and institutions in host countries (Mwega and Ngugi, 2007; Konishita, 2011). This has driven a number of most developing countries including Kenya to review their policies on foreign direct investments with a view of attracting and promoting more investors. Some of the policies adopted by Kenya include extension of incentives such as tax holidays, Value Added Tax (VAT) exemptions, investment allowances, establishment of the Export Processing Zones, and import duty remissions (Republic of Kenya, 1990).

International trade plays a significant role in the country’s growth and development through its links with all other sectors of the economy. Trade also plays a critical role in poverty reduction through employment creation. For these reasons significant attention has been directed towards the review of the effects of international trade on economic growth. The importance of international trade on economic growth was first highlighted in economic literature by classical economists (Smith, 1776; Ricardo, 1817)
who strongly believed that trade surpluses were the most favourable returns that could be derived from international trade relations.

According to Smith (1776), this meant that nations or regions should specialize in producing goods for which they particularly had an absolute advantage on. However, Ricardo (1817) argued that mutually beneficial trade depends only on relative advantage a country has in producing given goods not absolute advantage. On this basis the classical economists were proponents of exports promotion which will directly lead to economic development either through encouraging production of goods for export or allowing accumulation of foreign exchange with importation of capital inputs (Wagner, 2011) and for protection of domestic industries.

1.1.2 Foreign Direct Investment Policy development in Kenya

Kenya has been the economic power house in East Africa by being the most advanced economy accounting for 40% of the region's GDP (World Trade Organisation (WTO), 2012). Between the periods 1960s and 1970s Kenya enjoyed a relatively high level of development, good infrastructure, large market size, growth and openness to FDI compared to the other country members in the East Africa Community (EAC). In the early 1970s FDI averaged at around $10 million a year peaking to an average of $80 million in 1979-1980. According to Gachino (2009) the rise in FDI was boosted by the enactment of Foreign Investment Protection Act (FIPA) in 1964, by the Government
which guaranteed foreign investors the right to transfer profits, dividends and capital out of the country.

According to United Nations Conference on Trade and Development (UNCTAD) (2005) in the early 1990s there was a decline in FDI attraction in Kenya, due to increased openness by the other neighbouring countries like Tanzania and Uganda. Equally the end of apartheid in South Africa in 1994 increased competition for FDI attraction with large Multinational National Corporations (MNCs) seeking a single production or headquarters centre in English-speaking Africa.

The poor trends on FDI have persisted despite the government’s efforts in implementing measures that are aimed at attracting investors into the country. Abala (2014) asserts that reasons for Kenya’s poor performance in attracting FDI must be found mainly within the country. Studies have identified such factors as macroeconomic instability, corruption, bad governance, inconsistencies in economic policies, deteriorating public service, poor infrastructure, market size, low economic growth and rising cost of production (Kinaro, 2006).

The Republic of Kenya (1990) provided for the establishment of Export Processing Zones (EPZ) and the Export Processing Zones Authority (EPZA) with a view to promote and facilitate export oriented investments in Kenya. To ensure that the country remains competitive in attracting export oriented investments, the EPZ Act has gone through a number of amendments over the years including providing for enterprise
service activities to be licensed under the Act and defining eligible business service activities allowable in the zone without necessarily having to have an EPZ enterprise licence. The EPZ investors were extended a number of privileges ranging from tax holidays, reduced tax rates and duty remissions.

From 2000, a number of initiatives aimed at promoting and attracting FDI implemented. Among the initiatives that were adopted include introduction of African Growth and Opportunity Act (AGOA) by the United States in the year 2000. AGOA was geared towards providing tangible incentives for African countries to continue their efforts in opening up their economies and building free markets. Further, the government implemented the Economic Recovery Strategy (ERS) for wealth and employment creation in 2003 to stimulate private investment to generate wealth and reduce poverty.

In 2004 through the Act of Parliament, Kenya Investment Authority (KenInvest) was established to promote and facilitate investment in Kenya by advocating for a good investment climate and providing accurate information and offering quality services for a prosperous nation (Republic of Kenya, 2004). KenInvest was successor to Investment Promotion Centre (IPC), which was established in 1986 by an Act of Parliament with the primary role of attracting and retaining local and foreign direct investment in the country. This was a major action by the government in amending the Investment Promotion Act in order to make investment certificates optional for all investors (UNACTAD, 2011). The Kenya Vision 2030 and promulgation of the new Constitution in 2010 have equally provided a solid institutional and administrative framework in
order to guide the country on the path to higher and sustained economic growth and social development by 2030.

Despite the economic reforms that have been implemented by the government to attract FDI, inflows to Kenya have remained erratic as shown in Figure 1.1.

Figure 1.1: Trend of FDI inflow to Kenya 1970 - 2013

*Source: Own Calculations*

million in 2007. In general, FDI inflows to Kenya have not been consistent with a mix of declines and increase reaching US$514 million in 2013.

The erratic trend in FDI may be associated to a number of factors. Political instability as a result of the recurrent tribal clashes experienced during the election periods. For instance the 1992 and 1997 there were tribal clashes in the Rift Valley. These impacted greatly on Kenya’s preference of Kenya as an investment destination. The sharp rise in of FDI in 2000 can be associated high investment in the telecommunication industry. On the other hand changes in trade policy from that of import substitution to export promotion, led to the establishment of the Export Processing Zone (EPZ) in 1990. This led to increased FDI directed to specific industries like the clothing industry to take advantage of the African Growth Opportunity Act (AGOA) initiative.

1.1.3 International Trade Policy Developments in Kenya

Kenya's international trade policy development can be traced back to the Sessional Paper No. 10 of 1965 on African Socialism and its Application to Planning in Kenya. This paper was geared towards fast economic growth by putting emphasis on promotion and protection of the domestic industries. This policy mainly centered on trade development and pursued enhanced protection of the domestic market to help develop industries. This policy was a key influence on the development of the country's international trade regime over the first decade of independence (Republic of Kenya, 2009).
According to the Republic of Kenya (2009), further development in international trade policy in Kenya was implemented through the Structural Adjustment Programmes (SAPs) introduced through Sessional Paper No.1 of 1986 on Economic Management for Renewed Growth. Kenya’s trade policy was mainly geared towards encouraging industries to manufacture for export with improved efficiency, stimulating private investment and increasing the sector’s foreign exchange earnings away from relying on import substitution and protectionism.

In 1992 through Gazette Notice No. 4342 Export Promotion Council (EPC) was established. This was in line with the shift of focus of the country from import substitution oriented strategy to an outward looking export oriented economy. EPC’s mandate was to promote exports through providing assistance to producers of exportable goods and services in overcoming bottlenecks, to enable them achieve a higher level of export performance. Ultimately the government believed that this was a platform through which the country would increase her foreign exchange earnings resulting in enhanced economic growth.

In 1995 Kenya was a founding member of World Trade Organization (WTO) which has since contributed in development of market-driven principles of liberalization. Since gaining this membership a number of developments have been achieved including, lowering of tariffs and reduction of non-tariff barriers in Kenya’s export markets which has led to improved market access to Kenya’s exports. Kenya’s external trade policies
has focused towards creating an environment conducive to promoting its products in international markets, especially those of the developed countries of Europe, America and Japan without bias to the promotion of intra-African trade.

Equally over this period Kenya entered into multilateral, regional, bilateral and preferential trade arrangements which include East African Community (EAC), Common Market for Eastern and Southern Africa (COMESA) and the Inter-Governmental Authority on Development (IGAD). These agreements are geared towards speeding up Kenya's industrialization process and promoting export led economic growth through easing up foreign markets access (WTO, 2000). To boost its international trade Kenya has signed bilateral trade agreements with some of the following countries: Argentina, China, India, Nigeria, Rwanda, Tanzania, and South Africa. With these agreements in place, Kenya and its contracting partners accord each other the Most Favoured Nation (MFN) treatment in all matters with respect to their mutual trade relations (WTO, 2000).

While economic reforms and policies have been put in place to promote exports in Kenya the gap between the exports and imports has been widening over time as shown Figure 1.2.
The value of imports has remained more than the value of exports except in 1993 and 1994 in which the value of exports were more than the imports. In the 1970s the gap between the values of imports and exports were relatively small compared to gaps reported over the period starting 1995. By the year 2013 the difference between the imports and exports had widened with imports recording a high of millions US$ 18,322 while exports reported a high of millions US$ 9,794.

The increasing trends reported in both the exports and imports can be associated to increased degree of openness of the Kenyan economy over the period. On the other hand the widening in gaps of exports and imports may be due to increased
infrastructural development which require inputs that are not locally manufactured and also the fact that most of Kenya exports are mainly agricultural products. Agriculture in Kenya has over time been affected by drastic changes in climatic conditions leading to reduced output. The positive trade balance on the other hand can be associated with the establishment of EPZ in the early 1990s. This helped to increase the volumes of manufactured goods for export. Equally this trend can be linked to the government entering into trade agreements with other countries.

1.1.4 Kenya GDP growth Trends

In spite of the efforts put in place by the government, economic growth in Kenya has presented inconsistent trends over a period of time with a low real GDP growth rate of -4.6% in 1970, a sharp jump to 22% in 1971 and sharp decline to -0.8% in 1992 and a high of 8.4% in 2010 as detailed in the Figure 1.3
The country's real GDP growth rate depicted high rates in the early years of 1970s which is associated to increased public investment and encouragement in agricultural production. However, there was a decline in the late years of 1970s to year 2002 when GDP growth rate was 0.5%. Thereafter the economy registered a slight increase with a sharp decline in 2008 which is associated with the post-election violence. The unusual performance in economic growth is explained by both the internal and external factors. For instance, the 1974 - 1990 periods were marked by the government pursuing the import substitution policies and high oil prices which made the manufacturing sector in Kenya less competitive. There was improved economic performance over the period 1994-1996 which can be associated with major structural adjustment programmes.

Source: Own Calculations
establishment of EPZs that was initiated by the government. Adverse weather conditions and political unrests had negative effects on the country’s economic performance in some periods (1992, 1997 and 2008).

1.2 Statement of the Problem

One of the main objectives of the Kenyan Government over the years has been to achieve a sustainable and stable economic growth. Economic growth depends on a number of variables among them FDI and international trade. FDI and international trade have been regarded as key economic driving forces through which globalization process is achieved in developing countries including Kenya (Blomstrom and Persson, 1983). To achieve the said objective, the government has put in place a number of policies that are geared towards attraction of FDI and promotion of international trade.

The effect of FDI on economic growth in Kenya has been reviewed through a number of studies (Nyamwange, 2009; Ocharo et al., 2014; Robert et al., 2014 and Abala, 2014). However, these studies have presented mixed results on the effect of FDI on economic growth. Whereas Ocharo et al. (2014) and Robert et al. (2014) have presented that there exists a positive relationship between FDI and economic growth in Kenya; other studies, Nyamwange (2009) and Abala (2014), have shown that FDI has a negative and insignificant effect on economic growth in Kenya.
On the other hand, even though the relationship between trade and economic growth in Kenya has not been extensively discussed, the available studies have equally reflected mixed findings. A study by Muhoro and Otieno (2014), show that there exists a positive relationship between international trade and economic growth in Kenya; whereas the study by Neddy et al. (2013) show that there is negative relationship between trade and economic growth in Kenya.

In order to attain a sustainable economic growth the government has continued putting in place policies geared towards integrating Kenya into globalisation. Despite the efforts that have been put in place by the government in attracting of FDI and promoting international trade in Kenya, their effect on economic growth has not conclusively been explored. A number of studies have been carried out to measure the effect of FDI and international trade on economic growth. However, these studies have presented mixed findings. Therefore, there is need to further evaluate the effect of FDI and international trade on the overall economic growth in Kenya. This study evaluates the effect of FDI and International trade on economic growth in Kenya for the period 1970 to 2013.

1.3 Research Questions

(i) What is the effect of FDI on economic growth in Kenya?
(ii) What is the effect of international trade on economic growth in Kenya?
1.4 Research Objectives

The general objective of this study is to determine the effect of FDI and international trade on economic growth in Kenya. The specific objectives are:

(a) To determine the effect of FDI on economic growth in Kenya
(b) To determine the effect of international trade on economic growth in Kenya

1.5 Significance of the Study

Findings from the study will be used by the government and policy makers in formulating policies on FDI and international trade with a view of ensuring sustainable economic growth of Kenya. Further, the findings from the study will contribute to the existing literature on the effect of FDI and international trade on economic growth in Kenya and can be used for future studies on areas of FDI, International trade and economic growth.

1.6 Scope and Limitations of the Study

This study took into consideration the period in which Kenya implemented various policies and programs aimed at promoting both FDI and international trade. Data for the study was limited to the period between 1970 and 2013.
1.7 Organization of the study

The study consists of five chapters. The first chapter is an introduction that provides relevant background about the study. Chapter two presents literature review, both theoretical and empirical. Chapter three focuses on research methodology which includes the research design, theoretical framework, model specification, definition and measurement of variables and data source. Chapter four details the empirical findings while chapter five focuses on the recommendations and conclusions.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter reviews both theoretical and empirical literature on FDI, international trade and economic growth. The first section reviews the theoretical foundations that underlie FDI, international trade and economic growth. The second section reviews empirical literature on FDI, international trade and economic growth, and final section provides an overview of the literature.

2.2 Theoretical Literature

This section reviews theories that explain the relationship between FDI and economic growth and international trade and economic growth.

2.2.1 Absolute Advantage Theory

Smith (1776) in his famous book "The Wealth of Nations" indicated that a nation exports if it is the world’s lowest cost producer which gives it a price advantage. Smith assumed that; countries are differently endowed with resources; and countries can only participate in trade if they had an absolute advantage in production of different goods and specialize in producing such goods. A nation has absolute advantage over the other
if it uses lesser amount of factors of production to produce one unit of a commodity than the other country.

The concept of absolute advantage can be demonstrated as in the Table 2.1 which provides for the labour hours necessary to produce a unit of commodity X and Y in countries A and B.

Table 2.1: Absolute Advantage

<table>
<thead>
<tr>
<th>Product</th>
<th>Country A</th>
<th>Country B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product X</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Product Y</td>
<td>15</td>
<td>6</td>
</tr>
</tbody>
</table>

From Table 2.1 above country A has an absolute advantage in producing product X since it takes less hours to produce a unit of X in country A than in country B. On the other hand since it takes less hours in country B to produce Y country B has an absolute advantage of product Y.

Smith concluded that the wealth of nations was not reflected in its gold accumulation rather in the goods and services available to the masses for consumption. For this to happen there must be free trade and specialization between countries. Smith's theory faces a limitation by assuming that trade between countries can only exist if the trading partners have absolute advantage in producing different goods which may not be the case. The postulation of Adam Smith that international trade has positive effect on
economic growth of a nation will provide the theoretical expected effect of international trade on the economic growth in Kenya.

2.2.2 Comparative Advantage Theory

Ricardo (1817) sought to build on Smith’s analysis by demonstrating that a country can gain from trade even if it does not have an absolute advantage in production of a given product. According to Ricardo each country has a comparative advantage over its trading partner in the production of a good if the opportunity cost of producing that good is lower at home than in the other country.

The comparative advantage theory can be demonstrated in Table 2.2 which considers two countries A and B of which each requires a number of hours to produce product X and Y.

Table 2.2: Comparative Advantage

<table>
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<th>Country A</th>
<th>Country B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product X</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Product Y</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

From the table country B has an absolute advantage in production of both products X and Y therefore on basis of Adam Smith’s absolute advantage theory there will be no
trade between the two countries. However, according to Ricardo the two countries can trade by considering the relative prices of producing each product in the two countries. For instance country A is relatively more efficient in production of product Y since its relative price of \( \frac{15}{3} \) is relatively lower than that of product X which is \( \frac{20}{5} \). This means that Country A is 5 times efficient to produce Y and 4 times efficient to produce X since its relative price of \( \frac{15}{3} \) is relatively higher than that of product X which is \( \frac{20}{5} \). Therefore country A has a comparative advantage in production of Y than X. On the hand country B will be relatively efficient in production of product X since its relative price of \( \frac{5}{20} \) is relatively higher than that of product Y which is \( \frac{3}{15} \). This implies that country B has a comparative advantage in product X over product Y. It follows that the two countries will engage in trade since each of them will produce more of the product it had a comparative advantage in and import the product in which they have a comparative disadvantage.

This theory is based on the assumption that factors of production are immobile, however, this assumption does not hold in the modern world given there is free movement of factors across the world. The gains from trade may be explained by comparing the terms of trade in a closed economy and terms of trade in an open economy. This study is built on the fact that the effect of international trade in Kenya is explained by its comparative advantage over other trading partners.
2.2.3 The Factor Endowment Theory

Heckscher (1919) and Ohlin (1933) in their theory sought to explain the reason why countries have different opportunity costs of producing goods. The source of comparative advantage is the difference in factor endowments between countries and this causes trade between trading partners. The factor endowment is measured in terms of factor prices and in terms of the physical amount of the factors. The argument of the model is that production of export goods that utilize intensively its factors of production that are plentiful and importation of goods that intensively uses scarce factor of production induces more growth. This theory is limited by the fact it assumes that factor inputs are identical and can be measured in homogenous units. These assumptions may not hold in a realistic economy.

2.2.4 Solow Model

Solow (1956) developed the neoclassical theory of economic growth. The model sought to explain the effects of changes in inputs of production on the final output. The Solow model was developed on basis of a production function of the form:

\[ Y_t = f(K_t, L_t) \]  

Where, where \( Y_t \) is output at time \( t \), \( K_t \) is capital at time \( t \) and \( L_t \) is labour at time \( t \). The model assumes that; the production function is increasing in each input, and has diminishing marginal product; there is no production where one or all the inputs of
production are equal to zero i.e. \( F(0, L) = F(K, 0) = F(0, 0) = 0 \); the production function exhibits constant returns to scale such that \( F(AK_t, AL_t) = AY_t \) where \( A > 0 \); and there is free movement of factors of production across countries.

The model concludes that any increase in inputs to production has a positive effect on the economic growth and that it contributes a great deal in welfare improvement.

According to this model \( K \) will comprise of both domestic and foreign form of capital. On basis of Solow model this study has been built on the assumption that inflows from FDI and international trade will form part of the foreign capital Further this study assumes that there is free movement of factors of production from one country to the other. However, this model has a weakness in that it assumes that in the long run production levels will reach a steady state, such that any increase in input will have no effect on the output which is not the case.

### 2.2.5 Endogenous growth theory

In contrast to Solow model that assumes steady-state growth is determined exogenously, endogenous growth models, assume that steady-state growth is determined from within the model. The endogenous growth models seek to explain that determinants of growth are assumed to grow automatically in proportion to changes in capital. These models are developed on the basis of production function of the form \( Y = AK \) which makes them to be referred to as AK models.
The AK Models represent an amended Solow model (Romer, 1989; Lucas, 1990, Barro, 1991) in order to explain long run effect of inputs on output. The AK Models assumes that aggregate output is a linear function of aggregate capital stock. It further assumes that in a competitive economy firms face a technology with constant returns to scale. Nevertheless, productivity is an increasing function of the cumulative capital. The models conclude that with constant returns to capital, the incentive to invest never diminishes since the marginal product of capital is always the same. The proponents of the AK models believe that there are positive externalities like technology, knowledge and skill transmission to be exploited from globalization.

Barro (1990, 1991) among the proponents AK models developed and used a simple endogenous growth model called the Barro Model of the form:

\[ Y = f(K_i) \]

Where \( Y \) is output and \( K_i \) denotes capital components

Barro model was geared to explain economic growth in a cross section of countries with focus on the links between innovation and investment on one side and growth on the other side. The model was developed on the basis of the assumptions advanced by the AK models. This study is built on the premise of the Barro model to determine the effect of FDI and international trade capital accumulation effect on economic growth in Kenya. FDI and international were treated as endogenous determinants of growth and
that they will influence growth through their effect on capital accumulation and spill overs like technology, innovation and skill transfer among others.

2.3 Empirical Literature

Seetanah and Khadaro (2002) assesses the impact of FDI on economic growth for a panel of 39 Sub-Saharan African countries including Kenya covering the period 1980-2000. The study applied static and dynamic panel data technique to analyze the role of FDI in the economic growth of 39 sampled sub-Saharan countries. The findings from the study pointed that FDI is an important element in explaining economic growth of Sub Saharan African countries.

Mwega and Ngugi (2007) carried out a study on impact and potential of FDI in sub-Saharan Africa including Kenya using OLS method to analyse data from 1970-2001. In their study they considered a model that incorporated real income growth, trading partner growth rate, education levels, real exchange rate, quality of education among other variable as a function of net FDI inflows to GDP ratio The study found that any strategy for attracting FDI has to suit the particular conditions of a country at any particular time, and evolve as the country’s needs and competitive position in the world change. The study concluded that FDI exerts a positive and significant impact on economic growth.
Mohan and Nandwa (2007) carried out a study to examine the short run and long run relationship between exports and economic growth in Kenya using annual time series data for 1970-2004. The study used autoregressive distributed lag (ADRL) bounds technique. The study concluded that there exists a long-term and significant relationship between GDP growth and exports in Kenya and as such export promoting policies should be implemented to ensure sustained economic growth.

Neddy et al. (2013) using the Barro model assessed the effect of international trade on economic growth in Kenya. The study used time series data for the period 1960-2010. Considering that international trade comprises a number of components the study evaluated the effects of exchange rate, inflation and final government consumption on economic growth in Kenya. By using the Barro (1991) model and multiple regressions model the study applied the ordinary least square method to estimate the effects of international trade on economic growth. From the analysis the study found that exchange rate has no effect on economic growth, while inflation had negative and significant effect on economic growth. On the other hand final government consumption had positive effect economic growth in Kenya. This study adopted the model used by the study with modifications in determining the effects of FDI and international trade on economic growth in Kenya.

Muhor & Otieno (2014) investigated the Export Led Growth Hypothesis (ELGH) in Kenya using time series data from 1976-2011. Specifically the study sought to find out whether promoting exports enhances economic growth in Kenya while monitoring
other potential relevant variables such as imports, consumption, investment and FDI. They applied the 2-Stage Least Squares techniques in testing the effect of exports on economic growth. The study found that the promotion of and growth in exports enhances economic growth in Kenya in the short run. The study concluded that Kenya should ensure that the macroeconomic and institutional environment is conducive for export growth specifically. Their study however, focused on the effects of exports only and failed to review the effect of the other variables like imports.

Abala (2014), carried out an empirical analysis on FDI and economic growth in Kenya. The study estimated the effect of FDI on economic growth by use of Multiple regression model covering a period between 1970 and 2010. The study found that resource seeking FDI did not a significant effect on economic growth in Kenya. The study concluded that FDI in Kenya is mainly market-seeking and these require growing economies, political stability and good infrastructure, market size as well as reduction in corruption levels. This implies that economic growth has a positive and significant effect on FDI.

Ocharo et al. (2014) carried out a study on the effect of private capital inflows on economic growth in Kenya. The study specifically evaluated the effect of foreign direct investment, portfolio investment and cross-border interbank borrowing on economic growth in Kenya. The study used a time series data for the period 1970 -2010. Using Ordinary Least Square estimation and impulse response function and variance decomposition the study found that foreign direct investment has a a positive and
statistically significant effect on economic growth. The study equally considered other factors that determine economic growth which include, human capital, trade openness, and government expenditure among others.

Robert et al. (2014) assessed the impact of FDI by Chinese companies in Kenya. Using survey research design, primary data was obtained from target population which comprised employees of various organizations conversant with FDI issues. The data obtained was analysed and the impact estimated using ordinary least squares method. The study found that FDI by Chinese companies contributed positively to economic growth through human capital development, employment, and capital supply. The study has differentiated itself from other by considering primary data in drawing its conclusion. However, the sample considered may not be representative implying that the results may be biased.

2.4 Overview of Literature Review

From the review of literature it is evident that studies on the effects of FDI and international trade on economic growth in Kenya have presented inconclusive results. Whereas, (Ocharo et al., 2014) and Robert et al., (2014) have shown that FDI has a positive effect on economic growth of Kenya, Nyamwange (2009) and Abala, (2014) have shown that FDI has a negative effect on economic growth.
Equally studies on the effects of international trade on economic growth in Kenya have presented mixed findings. While the study by Neddy et al., (2013) has shown that there is a negative relationship between international trade and economic growth in Kenya, Muhoro and Otieno (2013) and Ocharo et al., (2014) have shown that international trade has a positive effective on economic growth in Kenya. Most recent studies on the relationship between FDI and economic growth have applied the endogenous growth models (Ocharo et al., 2014 and Robert et al., 2014).

This study is aimed at determining the effects of FDI and international trade on Kenya’s economic growth which will contribute to the earlier studies with a view of resolving the controversies that exist. The study considered other control variables including tax revenue, external debt among other factors that have not been considered by earlier studies. The study equally sought to determine the effect of exports and imports independently on economic growth with a view to evaluate the success of export promotion policies.
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the theoretical framework of the model adopted for the study, the empirical model established, definitions and measurement of the variables, data types and sources.

3.2 Research Design

This study applied longitudinal or time series research design whose main objective was to determine the effect of FDI and international trade on economic growth in Kenya. The study used annual secondary data collected from various data sources and which were subjected to time series analysis to achieve the set objectives.

3.3 Theoretical Framework

To examine the effect of foreign direct investment and international trade on economic growth in Kenya, this study used a simple endogenous-growth model as developed by Barro (1990, 1991). The model was developed and used to illustrate the potential effects of accumulation of capital on growth in a closed economy. The Barro model assumes that aggregate output is a linear function of aggregate capital stock. It equally assumes
that in a competitive economy each firm faces a technology with constant returns to scale but productivity is an increasing function of the aggregate capital formation. Based on the assumptions, the theory concluded that any increase in capital stock in an economy has a positive effect on economic growth and a decrease will have a negative effect.

This study was built on the assumption of the Barro model by evaluating the capital accumulation effect associated with policies adopted by the government of Kenya over time that are geared towards the attraction of FDI and promotion of international trade. This study assumed that, any increase in FDI and international trade brings about additional capital stock into the country, technology transfer, skill and knowledge development and innovations which are believed to increase economic growth of a country. As provided by the model increase in FDI and international trade will bring about a competition which is expected to stimulate economic growth.

3.4 Empirical Model

This study examined the effect of FDI and international trade on economic growth in Kenya. These objectives of the study were achieved by adopting a simple endogenous growth model that is consistent with the Barro (1990, 1991) model which is expressed as:

\[ Y = f(K) \]  

\[ (3.1) \]

Where:
\( Y \) denotes output and \( K \), denote capital components.

This study adopted the Barro model (1990, 1991) as modified by Neddy et al. (2013) which was expressed as:

\[
GDP = f(FDI, EX, IM, TR, ED) \tag{3.2}
\]

Where:

\( GDP \) denotes real economic growth rate, \( FDI \) denote Foreign Direct Investment, \( EX \) denotes the exports, \( IM \) denotes the imports, \( TR \) denotes Tax Revenue and \( ED \) denotes External Debt stock.

### 3.5 Definition and Measurement of Variables

**Economic growth:** the average annual increase in production of goods and services in a country. It was measured by annual percentage increase in real gross domestic production.

**Foreign direct investment:** an investment to acquire a lasting management (normally 10 percent of voting stock) in a business operating in Kenya by foreign investors. It was measured by the yearly report on FDI inflows in Kenya as a percentage of GDP.

**International Trade** is the exchange of capital, goods and services across international borders or territories. For the purpose of this study International trade was represented by total Exports and Imports.
i) **Exports**: Represent the total value of goods and services that are supplied by one Kenya into other countries. This was measured by the yearly reported values of exports out of Kenya as percentage of GDP.

ii) **Imports**: Represent value of goods, and services that are demanded by one country from another country. This was measured by the yearly reported values of imports into Kenya as a percentage of GDP.

**Tax Revenue**: Refers to compulsory transfers to the central government for public purposes. This was measured using the yearly reported values of tax revenue as a percentage of GDP.

**External Debt**: debt owed to non-residents repayable in currency, goods, or services. This was measured using the reported values of external debt as percentage of GDP.

### 3.6 Data types and sources

To achieve the objectives of this study, secondary annual time series data was used. Data on economic growth, foreign direct investment, exports, imports tax revenue and external debt for the period 1970 to 2013 was obtained from World Bank’s African Development Indicators, Economic Surveys and Statistical Abstracts.
3.7 Time Series Property Tests

3.7.1 Unit root testing

Each series was tested for presence of unit root, in order to check whether the series were stationary or non-stationary. Stationary series is one with a constant mean and variance across time. Testing for stationarity was critical because use of non-stationary series may yield spurious results. Equally the test for stationarity helped in determination of the best estimation methodology to apply in the analysis. This study used Augmented Dickey-Fuller and Phillips-Perron (PP) tests to check if the variables are stationary.

3.7.2 Co-integration test

Cointegration is done to investigate the relationship among FDI, international trade and economic growth. Co-integration test was important in determining whether there is genuine long-run relationship among variables or a spurious one. The study used the Autoregressive Distribution Lag (ARDL) approach in checking for existence (or otherwise) of a long-run relationship among the variables. ARDL was preferred to other methods of testing for cointegration due to the fact that, it can be applied to variables irrespective of their order of integration.
3.8 Data Analysis

The first objective of this study was to determine the effect of FDI on economic growth in Kenya. The effect of FDI on economic growth was estimated using ARDL model by regressing GDP growth on FDI.

The second objective of the study was to determine the effect of international trade on economic growth in Kenya. In the same way as for objective one above, data was be subjected to time series test to ensure that they do not give spurious results. Then the effect was estimated by use ARDL technique by regressing GDP growth on the exports and imports.
CHAPTER FOUR

EMPIRICAL FINDINGS

4.1 Introduction

This Chapter presents the findings of this study detailing the time series properties test results, diagnostic and other distribution test results and the empirical results on the effect of FDI and international trade on economic growth in Kenya.

4.2 Time Series Properties Test Results

4.2.1 Unit root test

Unit root testing was carried out to check for stationarity with a view of ensuring that all variables are stationary before any further analysis. This is because regressing non-stationary variables may yield spurious results. Augmented Dickey-Fuller (ADF) and Phillips - Perron (PP) tests were used to carry out unit root test on the dependent and independent variables in the study. Table 4.1 presents results for unit root tests.
The ADF and PP tests were employed at both intercept and with intercept and trend. The decision rule was based on comparing the computed test statistic values with the Mackinnon (1999) critical values at 5% level significance for the rejection of the null hypothesis that the variables have a unit root. The decision rule is that we do not reject the null hypothesis when the test statistic is greater than the critical values at a given level of significance. From the results in Table 4.1 the computed test statistics for GDP, FDI, imports and tax revenue at the level were less than the critical values at 5% level significance. Therefore, null hypothesis that the variables have a unit root was rejected.
and hence it was concluded that they are stationary at level. On the other hand the test statistics at level for exports and external debt were greater than the critical values at 5% level of significance. Thus null hypothesis was not rejected and as such it was conclude that they were non-stationary at level. Therefore, exports and external debt variables were subjected to further testing at first difference at which they were found to be stationary.

The results showed that some variables were stationary at level and others were stationary at first difference implying that the series may have a stochastic trend and as such there was need to evaluate if there exists a long run relationship among the variables. ARDL approach was used to in evaluating the variables on the basis that it allows the use of both I(0) and I(1) variable in analysis.

### 4.2.2 Diagnostic and Distribution Test Results

To ensure that the model was statistically sound the study carried out various diagnostic tests including serial autocorrelation, normality, stability and heteroskedasticity tests. Existence of serial correlation was checked to ensure that the error terms in the series are independent from one another. Presence of serial correlation would undermine the estimation suitability of the model by resulting into biased estimators which would affect the reliability of the model. Breusch-Godfrey Serial Correlation LM Test was used to check for serial correlation with the null hypothesis that the errors are serially independent. The results of the test showed a computed F-statistic of 2.44 and a
probability of 0.11 (Table A3). Since the probability was greater than 0.05 the null hypothesis of no serial correlation was not rejected. It was concluded that the errors are serially independent.

To test whether the error terms in the model had constant variance the study tested for heteroskedasticity using the Autoregressive Conditional Heteroskedasticity (ARCH) test. This was important because heteroscedastic error term may bring about variability in the estimation process which will affect the reliability of the final result. The result from the test showed F-statistic of 0.47 with a probability of 0.63 (Table A4). This probability was greater than 0.05 denoting that the null hypothesis of constant variance in the residuals could not be rejected at 5% level of significance. Therefore it was concluded that error terms are homoscedastic.

Ramsey RESET test was carried to check for the stability of the functional form. The test was employed to test linear specification against a non-linear specification. The null hypothesis that the correct specification is linear was tested against the alternative hypothesis state that the correct specification is non-linear. The Ramsey Reset test was carried out on the resulting equation and the results were as detailed in Table 4.2.

<table>
<thead>
<tr>
<th>Table 4.2: Ramsey Reset Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Real Gross</td>
</tr>
<tr>
<td>Domestic Product</td>
</tr>
</tbody>
</table>
From the table above the probability values for up 2 terms were all greater than 0.05 denoting that the null hypothesis that the correct specification is linear could not be rejected at 5% level of significance. This implied that the model was correctly specified.

The study equally checked for normality to ensure that the residual values in the model were normally distributed. Histogram-normality test was employed and the results are as per the figure below.

![Histogram-Normality Test](image)

**Figure 4.1: Histogram-Normality Test**

From the figure above the Jarque-Bera statistic is 0.24 with a probability of 0.88. Since the probability value was greater than 0.05 then it implied that the residuals were normally distributed and thus the normality assumption of the residuals was not rejected at 5 per cent level of significance. This result denotes that the residuals are normally distributed and hence the model guarantees unbiased results.
Similarly, to ensure that the parameters in the model are constant or stable the study carried out stability test using CUSUM test. The graphical results are presented in Figure 4.2 below:

![CUSUM Test](image)

**Figure 4.2: Cusum Test**

From Figure 4.2 above the residuals in the model were found to be within the critical bounds at 5% level of significance. This signifies that the estimates are stable, consistent and reliable.

### 4.3 Empirical Findings

The main objective of this study was to determine the effect of foreign direct investment and trade on economic growth in Kenya. In particular the study first determined the effect of foreign direct investment on economic growth and then evaluated the effect of
international trade on economic growth in Kenya for the period 1970-2013. Time series data was used. Since the series exhibited stationarity at different levels the relationship between growth in GDP and the independent variables was analysed using the ARDL Model. This is because the time series data involved were integrated at different orders and also the ARDL model helped to overcome loss of information problem that is associated in addressing non stationarity through differencing. Further, dummy variables were included to capture shocks in years where sharp increases and falls in GDP growth were recorded. Effects of unusual Occurrences such as those for the period up to 1992 when Kenya was a one party state and those for the period after 1992 when Kenya was a multiparty state were also captured. The regression results were as in Table 4.3:
Table 4.3: Regression Results

<table>
<thead>
<tr>
<th>Dependent Variable: Real Gross Domestic Product Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variables</strong></td>
</tr>
<tr>
<td>Constant</td>
</tr>
<tr>
<td>Real Gross Domestic Product (t-1)</td>
</tr>
<tr>
<td>Real Gross Domestic Product (-2)</td>
</tr>
<tr>
<td>Foreign Direct Investment Gross Domestic Product</td>
</tr>
<tr>
<td>Log of Export in Gross Domestic Product</td>
</tr>
<tr>
<td>Log of Export Gross Domestic Product (t-1)</td>
</tr>
<tr>
<td>Imports Gross Domestic Product</td>
</tr>
<tr>
<td>Tax Revenue Gross Domestic Product</td>
</tr>
<tr>
<td>Tax Revenue Gross Domestic Product (t-1)</td>
</tr>
<tr>
<td>Tax Revenue Gross Domestic Product (-2)</td>
</tr>
<tr>
<td>Log of External Debt Gross Domestic Product</td>
</tr>
<tr>
<td>Log of External Debt Gross Domestic Product (t-1)</td>
</tr>
<tr>
<td>Dummy 1</td>
</tr>
<tr>
<td>Dummy 2</td>
</tr>
<tr>
<td>Dummy 3</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
</tr>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
</tr>
<tr>
<td>Durbin – Watson</td>
</tr>
</tbody>
</table>

Note: *** shows the coefficient is statistically significant at 1%, ** shows the coefficient is statistically significant at 5% and * shows the coefficient is statistically significant at 10%.

Changes in the independent variables as shown in Table 4.3 above together describe about 83.7 per cent of the variations in economic growth in Kenya. With an adjusted R-squared of more than 0.5 indicates that the independent variables in the model have a strong power of explanation on the changes in economic growth in Kenya. Further, the
results show F-statistic of 16.12 which is statistically significant at 1% level. This implies that the overall model is significant and well fitted to explain changes in economic growth in Kenya.

4.4 Effect of FDI on economic growth in Kenya

The first objective of the study was to determine the effect of FDI on economic growth in Kenya. The Kenyan government over time has focused in putting up policies that are geared towards promotion of FDI this is motivated by the view that it has a significant positive effect on economic growth. For instance in its latest effort to promote FDI the government has proposed setting up Special Economic Zones in order to attract special forms of FDI.

From the regression results in Table 4.3 the coefficient of FDI in GDP had the expected positive sign (2.264) with a corresponding probability of 0.0003. The result implies that FDI as a proportion of GDP has a positive and significant effect on economic growth in Kenya at 1 per cent level of significance. The results can be interpreted to mean that 1 unit increase of FDI in GDP brings about 2.264 units increase in economic growth in Kenya. This finding is in line with those of Ocharo et al, (2014) and Robert et al. (2014) which showed that FDI had a positive and significant effect on economic growth in Kenya. Further the finding conforms to the provisions of the endogenous growth models which provide that that FDI has a capital accumulation effect which bring about a positive influence on economic growth.
4.5 **Effect of international trade on economic growth in Kenya**

International trade has played a major role in promoting economic growth for both developing and developed countries. The government of Kenya since independence has formulated a number of policies with the aim of making Kenya competitive in international trade. The second objective of the study was therefore to determine the effect of international trade on economic growth in Kenya.

The results show that the coefficient of the log of exports of 0.056 had the expected positive sign with a probability of 0.029. The results show that log of exports is statistically significant at 5 per cent. On the other hand, the lagged log of exports had a negative coefficient that was statistically significant at 5%. With a positive coefficient, it implies that the proportion of exports in GDP has a positive effect on economic growth in Kenya. Precisely, the result indicates that one per cent increase in proportion of exports in GDP brings about 0.05 per cent increase in economic growth. The positive effect of exports can be associated to the multiplier effect as a result of increased foreign earnings on consumption and investment which leads to higher growth in the economy. The findings go along with those of Mohan and Nandwa (2007) which concluded that exports have a positive effect on economic growth in Kenya. On the other hand, the results show that the first lag of log of exports has a negative effect on
economic growth with 1 per cent increase causing a 0.57 per cent decrease in economic growth.

The coefficient for imports equally portrayed an expected sign (-0.25) with a probability of 0.005. From the results the coefficient of imports was statistically significant at 1 per cent level of significance. The result further shows that imports have a negative and significant effect on economic growth in Kenya. The findings denote that a unit increase in proportion of imports in GDP brings about a fall in real GDP growth by 0.25 units. This negative effect has been a basis over years on which major arguments by the government for domestic industry protection and encouraging export oriented industries. This is in line with Muhoro & Otieno (2014) who found that imports had a negative effect on the economy and recommended that the government should adopt export enhancing policies.

4.6 Effect of other variables on economic growth in Kenya

The study equally evaluated the effects of other variables on economic growth in Kenya. According to the reported results the coefficients of second lag of tax revenue had a negative and statistically significant effect on economic growth at 1 per cent level of significance. This shows that tax has a negative lagged effect on economic growth in Kenya. The result denote that a unit change in the average tax rate from the previous periods leads to a fall in real GDP growth rate by 0.40 units. This finding supports the findings of Scully (1991) that any increase in tax rate had a negative effect on economic growth.
growth of the United States of America. This result can be associated to the fact that tax
revenue to the government deprives off consumers part of their disposable income
which in turn reduces consumption and consequently affects economic growth.

The study also evaluated the effect of external debt on economic growth. External debt
was found to have a negative and significant effect on economic growth with a
coefficient of -0.06 and a probability of 0.0006. In the contrary the results show that the
lagged value of external debt has a positive and significant effect on economic growth
in Kenya. The results can be interpreted to mean a 1 per cent increase in proportion of
external debt in GDP leads to a fall in economic growth of 0.06 per cent. However, a
one per cent increase in the lagged value of external debt brings about a 0.05 per cent
increase in economic growth. The finding is in support of Were (2001) in which it was
found that accumulation of external debt stock had a negative effect on economic
growth and private investment in Kenya. The result can be associated to the fact that
external debt is often sought to provide an immediate relief to the economy. However,
after some period of time it has a negative effect since it brings about a crowding-out
effect on the future investments (Boskin, 2012).
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Introduction

This Chapter presents the summary, conclusions and policy implications of the study and areas for further research as detailed below.

5.2 Summary of the Study

Clear conclusion on what is the effect of FDI and International trade on economic growth in Kenya has not been made. Many studies have been conducted to determine the effects of FDI and international trade however; these studies have reported mixed results. This study was carried out with a view of trying to resolve to resolve the controversy by using ARDL approach and also considering other variables like tax revenue and external debt among other variables. Further the study also sought to contribute to the existing literature on the effects of FDI and international trade on economic growth in Kenya.

Using a simple endogenous growth model as proposed by Barro (1990, 1991) the study analysed time series data for the period 1970 - 2013. The ARDL approach was adopted in estimating the effects of FDI and international trade on economic growth. Tax revenue and external debt were taken as control variables in the estimation model. Given the variability of time series data in most countries including Kenya, ARDL
approach was considered the best, because it allows for testing even when the individual variables are stationary at level or first difference. By use of ARDL the study adopted an improved approach over the ordinary regression analysis which necessitates that the series must be I (1).

The study found that FDI component in GDP had a positive effect on economic growth in Kenya, which is in line with Barro (1991) model assumption that accumulation of capital through FDI has a positive effect on economic growth. The study on the other hand found that international trade through the exports that are drawn into GDP had a positive effect while imports in GDP had a negative effect on economic growth in Kenya. These findings provide additional evidence in support of the export-led growth hypothesis and efforts towards import substitution in Kenya.

5.3 Conclusions

The main objective of this study was to determine the effect of FDI and international trade on economic growth in Kenya. The results from the study were geared towards contributing and offering solution to the existing debate on the effect of FDI and international trade. The study used the ARDL approach to estimate effects of FDI, exports, imports, tax revenue and external debt on economic growth in Kenya.

This study established that any component of FDI in the GDP of Kenya has a positive and significant effect on economic growth. Similarly, the study found that export as a component of Kenya’s GDP has a positive and significant effect on the overall
economic growth in Kenya. These findings are consistent with the existing literatures as regard to the effects of FDI and exports on economic growth.

On the other hand, in line with other studies the study established that imports as a component of GDP has a negative effect on economic growth in Kenya. Equally the study concludes that tax revenue and external debt as components of GDP have negative effects on economic growth in Kenya.

5.4 Policy Implications

The government should continue putting in place policies that foster an investor friendly environment that attracts and encourages FDI. This is because the findings of this study have shown that an increase in contribution of FDI in GDP has a positive effect on real GDP growth in Kenya as by the positive and statistically significant coefficient. The proposed privatization of some government owned enterprises is a good step towards attracting FDI. Further, the proposed setting up of Special Economic Zones (SEZ) and the assent by the President of the SEZ Act is timely as it will encourage FDI flows in to the specified sectors of the economy. In addition this will minimise the blanket incentives advanced to any form of FDI, which have in turn proved unproductive.

Export promotion policies should be encouraged as they have a positive and significant effect on economic growth. Exports are likely to increase foreign exchange reserves and thus provide a wide access of locally manufactured goods into international markets.
As a result of increasing external debt stock and its associated effect on economic growth, external borrowing efforts by the government should be discouraged. This is because the results show that accumulation of external debt has a negative effect on economic growth in Kenya. The government should device other ways of financing budget deficits like selling of government assets. For instance the initiative by the government in floating the two billion dollar Euro Bond and the proposed floating of five billion shillings bond in the market through M-Akiba are good alternatives to external borrowing.

Although increase in average tax rate, implies increase in revenue for the government, it has more disincentives on economic growth that are linked to increase in government expenditure. As a result there is need for the government to control the average tax rate in order to promote sustainable economic growth. Further, the government should resort to other forms of raising government revenue besides taxation, like sale of government securities and participation in public private partnership investments.

5.5 Areas for further research

Future studies on this subject can be carried out by disaggregating the variable considered for this study. There will be need to evaluate the effect of FDI inflows that is directed to various sectors of the economy like manufacturing, agriculture, information communication technology, education and energy among others. This will help the government to make informed decisions on sectoral directed incentives.
Further, future studies may consider disaggregating the trade variables into export of goods, export of service, import of good and import of services. This may help draw policy recommendation on the effects of service exports and imports and also the effect of export and import of goods.
REFERENCES


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APPENDICES

APPENDIX 1: Data used in the study

Table A1: Raw Data

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP</th>
<th>IM</th>
<th>FDI</th>
<th>EX</th>
<th>ED</th>
<th>TR</th>
<th>Dummy 1</th>
<th>Dummy 2</th>
<th>Dummy 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>-0.047</td>
<td>0.307</td>
<td>0.009</td>
<td>0.298</td>
<td>0.298</td>
<td>0.178</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1971</td>
<td>0.222</td>
<td>0.352</td>
<td>0.004</td>
<td>0.286</td>
<td>0.280</td>
<td>0.182</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1972</td>
<td>0.171</td>
<td>0.287</td>
<td>0.003</td>
<td>0.266</td>
<td>0.276</td>
<td>0.180</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1973</td>
<td>0.059</td>
<td>0.287</td>
<td>0.007</td>
<td>0.274</td>
<td>0.338</td>
<td>0.220</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1974</td>
<td>0.041</td>
<td>0.409</td>
<td>0.008</td>
<td>0.337</td>
<td>0.388</td>
<td>0.195</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1975</td>
<td>0.009</td>
<td>0.345</td>
<td>0.005</td>
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Table A3: Serial Correlation LM Test:

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Table A4: Heteroskedasticity (ARCH) test

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