

Effect of Foreign Inflows on Economic Growth of East African Member Countries

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Abstract- This study objectives were to determinine the effect of foreign debt on the economic growth of East Africa member countries; to investigate the effect of foreign direct investment on the economic growth of East Africa member countries; to find out the effect of foreign aid on the economic growth of East Africa member countries and to establish the effect of remittances on the economic growth of East Africa member countries. Various theories relevant to the study such as neo-classical theory, dependency theory, dual-gap theory, pure self-interest theory and endogenous growth model were analyzed as well as reviewing empirical literature also relevant to the study. To achieve these objectives, the study used causal type of research design with a conceptual framework to run a multiple linear regression model using eviews statistical software. Time series secondary data was used covering a period of 27 years from 1990 to 2016. It was found out that the effect of foreign debt on economic growth is positive and significant, that of foreign direct investment is positive and insignificant as well as that of foreign aid and remittances. Foreign debt is the foreign inflow which affects economic growth the most. The study recommends that more external borrowing be done on condition that borrowed funds are well invested, governments of respective countries to increase funds set aside for promotions done abroad on East Africa's conducive environment to invest, governments also to seek for more aid from abroad encourage their citizens at the diaspora to increase remittances in their countries since it has been found to have a positive effect on gross domestic product.

Index Terms- EconomicGrowth, Foreign Direct Investment, Foreign Aid, Foreign Debt, Remittances, Government Expenditure

I. INTRODUCTION

B1.1 Background to the Study
reat challenge facing developing countries is high poverty levels that have led to poor living standards. The economy can be financed using either Internal or external sources or both. Those countries that rely on internal sources of finance find out that this is not enough as far development and recurrent expenditures are concerned (Putunoi & Mutuku, 2013). This poses a challenge to an extent that countries opt to set their focus on external sources of finance which is one of the ways that can be used to mitigate

the vice and enhance economic growth, leading to improved living standards in the long run.

Foreign direct investment, net exports, remittances, foreign aid and external borrowing are among the external sources of financing that if the money received is well invested, growth will be the result and reduction of poverty levels in the future. For instance according to Macias and Massa (2009), the effect on economic growth by private capital inflows has been of great concern in the recent past after the 2008 global financial crisis. This is as a result of these inflows being accompanied by investible funds and provides modern ways of technology that increases the efficiency of the already existing technology.

According to Ndambendia and Njoupouognigni (2010), foreign inflows have a positive effect on economic growth of a country. This arises because foreign inflows establishes an element of competition in the economy of the host country thereby helping local firms become more productive as they adopt more efficient technology as well as investing in physical and human capital. Even though that is the case, Cordella *et al.* (2005) gives a different view on the effect of foreign inflows on economic growth. The same view is being advocated by Ekanayake and Chatrna (2010) that the effect of foreign inflows on the economic growth is negative.

The study of foreign direct investment is associated with the analysis of the chains of global production as well as the geographical distribution of production (Blazek, 2012). According to Hardy *et al.* (2012), it is therefore a general consensus in the global scene that FDI contributes positively to economic growth. Almost all countries havetried to impress foreign investment in their respective countries with an aim of stimulating the national economy. FDI has made access to export markets easier as well as enhancing management techniques and skills that necessitates development in a country (Mwega & Ngugi, 2006). According to Akbas (2013) and Dogan (2014), foreign direct investments have a positive effect on the economic growth of a country.

In case of foreign aid, Tan (2009) confirms that there is a positive impact on economic growth contrary to the findings of Ekanayake and Chatrna (2010). Positive effect on economic growth is also evident when remittances are considered according to Bayar (2015), and Karamelikli *et al.* (2015). It is said that remittances is the major tool of promoting economic growth in any economy provided that those remittances are

channeled through the right channel and that they are well invested.

The major source of revenue for most developing countries is taxation in addition to other sale proceeds. The government uses this same revenue to finance various development projects in form government expenditures. In most cases there is a deficit, in that, the revenue collected sometimes is less than expenditure and this creates a gap which can only be bridged through borrowing from other countries resulting to external debt. In addition to budgetary support, external debt enhances investment in the receiving countries. According to Cordella *et al.* (2005), external debt affects economic growth negatively since in most cases these borrowed resources are poorly allocated and mismanaged.

1.1.1 Foreign Inflows

Globally according to World Bank (2018), foreign direct investment growth rate decreased from 45 percent in 2007 to -0.1 percent in 2013, remittances growth rate and external debt growth rate from 20 percent to 6 percent and 18 percent to 5 percent respectively in the same years. In case of foreign aid growth rate, there was an increase in growth rate from -1 percent in 2007 to 12 percent in 2013. From 2014 to 2016, there is a decrease in growth rate of remittances. External debt growth rate remains constant as foreign direct investment growth rate, foreign aid growth rate increases in the same years.

In Sub Saharan Africa, also according to World Bank (2018), foreign direct investment growth rate decreased from 75 percent in 2007 to 3 percent in 2013, remittances growth rate and external debt growth rate also decreased from 11 percent to -0.1 percent and 14 percent to 8 percent respectively in the same years. In case of foreign aid growth rate, an increase was recorded from -12 percent to 2 percent in 2007 to 2013. From 2014 to 2016, there is a decrease in remittances and foreign direct investment. Foreign aid growth rate remains constant as external debt growth rate increases in the same years.

1.1.2 Economic Growth

Economic growth takes place when nations extensively grow using natural, physical and human resources or productively or efficiently using resources intensively. Generally, economic growth is intensive or extensive in nature. Extensive EG is whereby GDP increase is absorbed by increased population with no increase in income per capita. Intensive EG is where GDP exceeds population improving living standards measured by real per capita income. To promote and facilitate EG intensive EG requires development economically.

EG studies are important to governments, economists and private organizations. Economists are interested in forecasting and measurement of economic growth. Private firms and governments are interested in forecasting and promoting national and regional EG. Generally, EG is promoted by increased labor productivity efforts. Growth of labor productivity is important to economic strength and growth. Labor productivity can be promoted by expanding physical capital by purchasing machines, tools and infrastructure, improving capital workforce knowledge through training and education, fostering new economies by introducing technology that is new to improve productivity and strengthening associations between private and public sectors by facilitating labor market works and limit distortions which are a result of passive labor policies in the market and taxes.

Globally according to World Bank (2018), gross domestic growth rate decreased from 15 percent in 2007 to 4 percent in 2013. From 2014 to 2016, there was a decrease in growth rate of gross domestic product. This global decrease in economic growth rate is as a result of prominent financial risks that exist which hinder investment in some of the sectors. It is also attributed to geopolitical shocks as well as political discords in most of the countries in the world. In Sub Saharan Africa also according to World Bank (2018), gross domestic growth rate decreased from 16 percent in 2007 to 6 percent in 2013 and also a decrease in growth rate of gross domestic product from 2014 to 2016.

1.1.3 Foreign Inflows and Economic Growth in East Africa

In East Africa, various foreign inflows in relation to economic growth relate as presented in Figure 1 below:

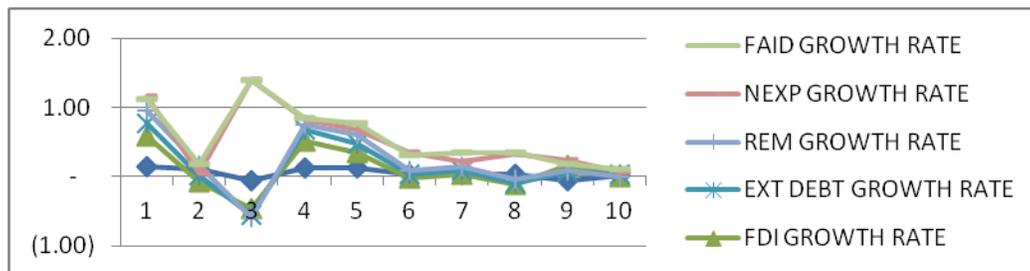


Figure 1: Line graph showing East Africa's foreign inflows growth rate on economic growth from 2007 to 2016
Source: World Bank (2018)

Figure 1. Shows how the growth rates of net exports, external debt, foreign aid, remittances, foreign direct investment and gross domestic product varies from 2007 to 2016 in East Africa. It is evident that gross domestic growth rate decreased from 14 percent in 2007 to 4 percent in 2013, foreign direct investment growth rate decreased from 44 percent in 2007 to 1 percent in 2013, remittances growth rate, external debt growth rate and net exports growth rate also decreased from 18 percent

to 5 percent, 18 percent to 5 percent and 20 percent to 7 percent respectively in the same years. In case of foreign aid growth rate an increase was recorded from -3 percent to 13 percent in 2007 to 2013. From 2014 to 2016, there is a decrease in growth rate of gross domestic product with an increase in the growth rates of foreign direct investment, external debt and foreign aid. In the same years, a decrease in remittances, net export growth rates was recorded.

1.2 Statement of the Problem

Developing countries struggle to sustain the heavy long term projects that they embark on for economic development. In an attempt to achieve economic growth, these countries result to relying on foreign inflows due to limited resources available locally, however it is not clear which form of inflow has the biggest impact on economic growth. This is evident from the background data above where in 2007 economic growth was 14 percent but it decreased to 4 percent in 2013.

A decrease is also witnessed from 2014 to 2016. This decrease is as a result of decrease and increase of the growth rates of variables such as foreign direct investment, remittances and foreign debt. According to Purtunoi and Mutuku (2013), countries rely on foreign capital to achieve economic growth. However developing countries borrows heavily beyond what they are able to pay back. They also invest inappropriately which eventually leads to decrease in economic growth.

Beatrice *et al.* (2017), researched on the relationship between foreign capital inflows and economic growth in Kenya. According to her studies, Foreign Debt and Foreign Aid affect the economy of Kenya negatively while FDI and remittance affects the Kenyan Economy positively. Rehman *et al.* (2016), studied on the impact of foreign capital inflows on economic growth for 21 developing countries, some of these countries are Argentina, Armenia, Belarus, Bolivia, Panama and India among others, using panel unit root test, he found out that net external debt and net official development assistance have significant negative impact while net foreign direct investment and net remittances have positive impact on economic growth of developing countries.

Generally these studies have failed to explain which form of inflow affects economic growth most and especially in East Africa as a whole. To the best of researcher's knowledge there exist limited studies on which form of foreign inflows affects economic growth most and also studies done in East Africa, despite the existing findings leaving the area under paradox. This study therefore filled this gap by determining how foreign inflow affect economic growth East Africa member countries.

1.3 Objectives of the Study

This study sought to achieve the below general objective and specific objectives;

1.3.1 General Objective

The general objective of the study was to examine the effect of foreign Inflows on economic growth of East Africa

1.3.2 Specific Objectives

- i. To determine the effect of foreign direct investment on the economic growth of East Africa.
- ii. To investigate the effect of remittances on the economic growth of East Africa.
- iii. To find out the effect of foreign debt on the economic growth of East Africa.
- iv. To examine the effect of foreign aid on the economic growth of East Africa.

1.4 Hypothesis of the Study

The study intended to prove below hypotheses.

H01: Foreign Direct Investment does not affect economic growth of East Africa.

H02: Remittances does not affect economic growth of East Africa.

H03: Foreign debt does not affect economic growth of East Africa.

H04: Economic growth of East Africa is not affected by foreign aid.

1.5 Justification of the Study

The study is important to a number of institutions including:

1.5.1 Governments of East African Countries

The general effect of foreign inflows on economic growth of East Africa will help the governments of the respective countries to know how to adjust and put necessary mechanisms that will facilitate growth of the economy in the region.

1.5.2 Donors

Donors giving foreign aid and credit will also find the results of this study useful since they will know the real effect of their funding on this region of East Africa in general. It may happen that if countries are dealt with in isolation, their effect on economic growth may be negative thus discouraging them to finance these respective countries. In their combined state the results may turn to be the opposite and therefore this will be the basis of whether they need to stop, continue, increase, decrease or keep their funding constant.

1.5.3 Investors and Academicians

The study will also be valuable to investors since the information on how foreign direct investment and remittances affect economic growth will determine whether to increase them or not. Further findings of this study will also be of significance to scholars as it forms a basis for further research. The study will also be a source of reference material for future researchers.

1.6 Scope of the study

The study focused on the effects of foreign direct inflows on economic growth of East African member countries namely, Kenya, Rwanda, Tanzania, Uganda, Somalia, Ethiopia, South Sudan, Burundi and Djibouti, from year 1990 to 2016. This is because limited research has been done that has covered East African Countries as a whole. The independent variables were Foreign Inflows, Foreign Direct Investment, Remittances, Foreign Debt and Foreign Aid while the dependent variable was Economic Growth. Annual data for 27 years from 1990 to 2016 was collected from World Bank data base. The study took a period of three months to be accomplished with an estimate of 112,000 Kenya shillings.

1.7 Limitations of the Study

It was not possible to get data for all the years in some of other countries. This limitation was dealt with by the researcher using the data available and finding the averages. The study was also limited by financial resources which were inadequate and thus restricted the researcher from using primary data since the area of coverage was large. Even though that was the case, this

limitation was overcome by the researcher getting in touch with online data from sites of good reputation like world bank. The study was also limited to a short period of time which was allocated to it which also coincided with the researcher's personal tasks. Even though that was the case, the researcher tried to make good use of the available time and also sacrificing some of the personal tasks to ensure that this study was completed within the speculated time.

II. LITERATURE REVIEW

2.1 Introduction

This chapter captures theoretical review which covers the neo-classical theory, dependency theory, dual-gap theory and pure self-interest theory. The conceptual framework, empirical review, critique of relevant literature to the study, summary and knowledge gaps have also been captured in this chapter.

2.2 Theoretical Review

2.2.1 The Endogenous Growth Model

The theory was developed in 1962 by Arrow. The endogenous growth model provides a link between long term growth and public policies by making an assumption that functions of aggregate production do exhibit a non decreasing returns to scale (Greiner, 2012). It states that economic growth and investment basically depends on within or endogenous factors and not on external factors. Investment done in human capital as well as in labour, significantly contribute to economic growth. Economic growth in the long run for a country is assumed to depend on government policy measures.

The study borrowed the initial model from Akram (2010), which makes an assumption that a Cobb-Douglas production function with non- decreasing returns to scale. Therefore in an inclusive production function, net exports, foreign direct investment, remittances, foreign debt and foreign aid can be written as:

$$Y = A(FDI, REM, FD, FA) \dots\dots\dots 2.2$$

Where; Where Y, FDI, REM, FD, FA and A are the measure of GDP, Foreign Direct Investment, Remittances, Foreign Debt, Foreign Aid respectively. The theory implies that the East Africa's economy will only grow if foreign inflows have a positive impact on its economic growth.

2.2.2 Dependency theory

Dependency theory was developed in the late 1950s by the United Nations Economic Commission for Latin America, being led by their director Raul Prebisch. It is founded on the world's Marxist view where globalization is seen on grounds of market capitalism as well as cheap labor resource exploitation in return for technologies of the west that are obsolete. It affirms that resources tend to flow from poor and underdeveloped countries to rich and developed countries. The wealthy countries therefore benefit at the expense of poor nations (Beatrice *et al.*, 2017)

According to Todaro (2003), this theory poses a stand point and central contention, in that, poor countries are impoverished as rich states get enriched depending on how poor countries are introduced into the international system. Poor

countries produce primary commodities and these are the ones they export to rich countries. This benefits rich countries as they process these primary commodities to manufactured products that are more valuable than primary commodities. They sell them back to the poor countries at high prices thus making more profits than poor nations. The richer countries' economic activity can lead to serious problems in the economic scene more especially in poorer countries since the added value of manufactured product always cost more than primary goods that were used to make those products.

It is therefore difficult for developing countries to get enough returns from their exports so as to finance for the expensive imports. This theory therefore strives to explain the current underdeveloped state of many countries in the world by investigating how they interact and that inequality that exist among these nations plays a major role in those interactions. The East Africa region's economic growth will therefore grow if resources move from these rich countries at a cheaper cost.

2.2.3 The Dual-gap theory

The theory was developed by Harrod and Domar in 1939 and 1946 respectively. This theory is derived from the accounting identity of national income which states that excess investment expenditure, which is the investment-savings gap, is the same as import surplus over exports, which is foreign exchange gap. Dual-gap theory therefore states that development is a function of investment (Oloyede, 2002). This investment needs savings that are done domestically but they are not enough to enhance development. It is therefore recommended that some money need to be obtained from other countries that is identical to what is need in saving so as to facilitate investment and enhance development in the long run.

According to Omoruyi (2005), economies of many countries have incurred a deficit as they try to bridge the gap that results from the savings and investment level and they have therefore devised another way of filling this gap, that is, external borrowing. This gap provides the basis of existence of external debt which is incurred so as to fill this gap since more investment leads to economic growth (Hunt, 2007). East African countries are not able to invest in large investments for they lack that capacity. They therefore need to borrow but this again is disadvantageous to them since they need to pay back at a higher rate of interest. The East African countries will therefore develop if the returns from investments supersede the money borrowed and interest to be included when paying back.

2.2.4 Pure self-interest theory

This theory was developed by Adam Smith in 2008. It is a motivation to remit. A migrant tend to send home remittances with an intention of inheriting, demonstrating sound and laudable behavior as a form of investment for the days to come or with an intention of returning home. According to Vargas-Silva and Huang (2006), some of the emigrants do send remittances since they expect that in the near future they may like to return home and can therefore benefit and have comfortable stay at home because the remittances they will have sent are enough to sustain them. As time goes by for the emigrants to return home they tend to send more remittances so as to ensure that their social status

do not change and even their relationships with the rest of the family members and friends remain intact.

The argument from other parties is that in case the amount of money that is to be remitted is minimal, family members and parents encourage transfer of any amount above the benchmark level in form of offering a reward like land or other assets that are inheritable. To summarize self-interest theory, a none negative relationship do exist between sending of remittances by the migrants and their recipient household wealth, their income as well as education, short term income shortfalls and family ties (Rapoport & Docquier, 2005). This theory can therefore solve the East African countries' problem of low economic growth by encouraging their citizens living in the diaspora to increase their remittances to their mother countries. The money will be invested and since there is no paying back, the economy will grow in the long run.

2.2.5 The Neo-classical theory

This theory was first developed by Adam Smith but was later improved by Solow in 1956. It states that the driving force of foreign inflows is the return differentials that exist between different countries. In case there is absence of restrictions, foreign inflows will tend to flow to countries where it is presumed to be having higher returns with scarcer capital more especially to the developing countries. This encourages nations to improve their inter-temporal consumption pattern which is done through lending out of money so as to finance profitable projects in foreign countries. According to Serlitis (2007), it can also be done through borrowing of money at a cheaper cost as compared to what it will have cost in case borrowing was done domestically to facilitate the financing of more investments with good returns.

This theory involves use of the identity that equates current account balance to the difference between investment and saving. It is given as:

$$CA = X - M = S - I \dots\dots\dots 2.1$$

This means that investment and saving decisions are the main and major variables that can be used in foreign inflow analysis.

From the traditional perspective, foreign inflows are financial counterpart to investment and savings decisions (Brunnermeier *et al.*, 2012). That capital has to flow from rich countries to poor countries that give more returns as compared to returns that are earned from rich countries. The main focus is on net capital inflows because this is what is employed when it comes to matters of funding borrowing requirements of a country. Even though that is the case, Lucas *et al.* (1990), asserts that even if capital per worker in the developing countries is low, capital flows not to developing countries from developed countries. This is due to different fundamental structures that exist in different countries such as differences in technology, government policies, institutional structures and production factors that are not available.

Market imperfections in the world market also contribute to this like returns uncertainty as well as asymmetric information. This theory therefore tends to favor developed countries more than the developing countries since it is rich countries that invest

in poor countries. East African countries will stimulate their economy if they are able to invest in other countries that are poorer than them that yield more returns.

2.3 Empirical Review

2.3.1 Foreign Direct Investments

Also Rahman (2015), carried out a study in Bangladesh to find out the impact of FDI on economic development. Control variables that were used include balance of trade and inflation rate. The study made use of time series data covering 15 years between 1999 and 2013. Multiple regression analysis was run so as to find out the relationship that exists between dependent and independent variable. The results show that there is none positive correlation between economic growth and FDI and this is a concern for the government of Bangladesh. The government has to look for required reforms that need to be formulated and implemented so as to ensure that foreign investment yield positive returns.

Hlavacek *et al.* (2016), analyzed impact of foreign direct investment on economic growth between 2000 and 2012 in countries of Eastern European and Central European. The emphasis was on Hungary, Poland, Slovenia, Estonia, Latvia, Czech Republic, Slovenia and Lithuania. Comparative analysis was done in the first part on the trends of GDP and FDI and in the second part a growth model was analyzed that was based on Endogenous Growth Model. High influence of foreign direct investment on economic growth was reported in Estonia, Hungary, Czech Republic and Slovakia in that order. Lower influence was reported in Lithuania as well as Poland and Latvia in that order. Slovenia closed the chain. From the growth model, relationship between economic growth and FDI is positive and statistically significant. The influence was more visible between 2009 and 2012.

Ocharo (2013), investigated the effect of private capital inflows on the economic growth of Kenya. The study determined to examine the causality that exists between foreign direct investment and portfolio investment as well as inter bank borrowing across the border and economic growth in Kenya. It was found from the study that there is unidirectional causality emanating from foreign direct investment to economic growth and also from economic growth to borrowing of cross-border interbank.

It was also found out that foreign direct investment coefficient taken as a ratio of gross domestic product was statistically significant and positive, and that the portfolio investment coefficients taken as a ratio of gross domestic product. The coefficient of cross-border interbank borrowing taken as a ratio of gross domestic product was also found to be statistically insignificant and positive. The study recommended that the Kenyan Government should ensure that an environment has been created that attracts FDI and at the same time strive to achieve high economic growth rate such that cross-border interbank borrowing is attracted.

2.3.2 Remittances

Chowdhury (2016), only considered the effect of remittances on economic growth and included a total of 33 countries. The results may be different in case one country was considered or a small group of some countries whose economy

lies at the same level. Other studies like Paul *et al.* (2011), Bayar (2015) as well as Karamelikli and Bayar (2015) have also considered remittances only and left out other variables that constitute capital inflows that may also have an effect on economic growth.

More recent study on the effect of foreign capital inflows on economic growth is Beatrice *et al.* (2017), that was done in Kenya. The study intended to establish the relationship that exists between foreign capital inflows and economic growth. Panel data covering a period between 2000 and 2015 was used. The study used FDI, foreign aid, remittances and foreign debt as the main independent variables. The results have shown that there exist a relationship between FDI and Kenya's GDP and that foreign debt and economic growth of Kenya relate negatively. Remittance indicators affect Kenya's economic growth the most and that on average, foreign Aids had a more negative impact on economic growth in 2004 as compared to 2014.

2.3.3 Foreign Debt

Also Okon *et al.* (2017), analyzed that the relationship that exists among economic growth, external debt and poverty in Nigeria while employing time series data on a yearly basis from 1986 to 2016. The approach of a multivariate regression was used in estimating the specified augmented growth model. The findings indicated that the relationship between economic growth and external debt was positive but statistically insignificant. Between economic growth and exchange rate, the relationship was positive and statistically significant.

Studies have also been done on foreign debt's effect on economic growth. For instance, Lau *et al.* (2015), investigated the influence on economic growth by foreign debt in three countries namely; Philippines, Thailand and Malaysia. Causal type of research design was used and for the causal chain linkages to be discerned among the macroeconomic variables, the study tested the connection that exists between economic growth and external debt while making use of several econometric procedures.

Cointegration test results show that there is a long-run unique relationship between variables for the case of Malaysia. For Thailand and Philippines, two cointegrating vectors are evident. It is evident from the results of the study that growth-driven exports hypothesis exist in Malaysia and export-led growth hypothesis exist in Thailand. Considering the econometric analysis from this study, export of goods and services is the leading variable for the coming 50 years. The study recommends that debt management policies that are effective need to be formulated by policy makers so as to check on the amount that has been borrowed from external countries to ensure that the economic growth is not hindered by external debt accumulation.

Another study by Were (2001), examined Kenya's external debt structure and its implications on the growth of the economy. The study used time series data of between 1970 and 1995 and it was found out that the external debt of Kenya is official and a bigger proportion of it originates from sources that are multilateral. It is therefore evident that in Kenya, there is a problem of debt overhang. Inflows of current debt also stimulate private investment. It was also found from this study that debt

servicing does not adversely affect growth even though it has crowding-out effects particularly on private investment.

2.3.4 Foreign Aid

Foreign aid has also been considered. For example Asiedu (2014), carried out a study to find out whether foreign aid in education promotes economic growth in Sub Saharan Africa. An analysis was done covering a total of 38 countries between 1990 and 2004. The study is controlled using variables such as inflation, government consumption, investment, institutional quality and trade openness. A regression analysis was carried out and it was found out that primary education aid has a statistically significant and positive influence on economic growth. It was also found out that there is a negative but not significant effect on growth when using post primary education aid. On the same note, economic growth increases when there is an increase in primary education aid taken as a share of the total education aid.

Ekanayake and Chatrna (2010), also analyzed the effect of foreign aid on economic growth for a period of 28 years from 1980 to 2007. The study considered both low and middle income countries as well as upper middle income nations using both GMM and OLS techniques of estimation. It was found out that the effect of foreign aid on economic growth was negative. Contrary to this findings, Tan (2009), realized that the impact of foreign aid on economic growth is positive. The study used the technique of pooled mean group estimation while focusing on 46 developing countries.

2.3.5 Economic Growth

Raza *et al.* (2011), investigated the impact on economic growth by foreign capital inflow in Pakistani covering a period of between 1985 and 2010. Multiple regression technique was used for analysis. It was found out that the influence of remittances, foreign direct investment and foreign portfolio investment on economic growth was statistically significant and positive. In case of foreign aid, the effect was negative and statistically significant. It was further found out that remittances, foreign portfolio investment and foreign direct investment facilitates growth of the economy and it is therefore recommended that it is good for Pakistan to break dependency on foreign aid but make use of domestic resources.

Studies like Chowdhury (2001), as well as Pattillo *et al.* (2002), and Cordella *et al.* (2005), including Ekanayake and Chatrna (2010), supported the none positive effect on economic growth. Contrary to this, capital inflows were found to have a positive impact on economic growth.

Rehman *et al.* (2016), included all variables of foreign capital inflow as the study analyzed the impact of these variables on economic growth covering a period of 24 years from 1990 to 2013. A total of 21 countries from the developing world were used. Both short run and long run analysis was done using pooled mean group estimation and panel unit root test. The findings from the analysis show that net official development assistance and net external debt impact economic growth negatively and significantly. There is a positive and significant impact in the long run for the case of net remittances and FDI on economic growth. The study recommends that it is necessary to allocate foreign resources efficiently and effectively.

Considering remittances, Chowdhury (2016), examined the influence of remittances on economic growth for 33 developing countries for a period of 33 years from 1979 to 2011. Different levels of financial development were considered while employing dynamic panel estimation. It was found out that financial development cannot substitute nor complement growth of remittance nexus. Even though remittances promote economic growth, financial variables' influence is insignificant.

More developed systems of finance may have a more attraction on remittances even though the interaction effect of remittances and financial development does not enhance economic growth. Even other Studies such as Paul *et al.* (2011), Bayar (2015), and Karamelikli and Bayar (2015), show that remittances which are one of the major tools used to promote economic growth have a positive influence on economic growth.

2.4 Critique of Existing Literature Relevant to the Study

Many of the studies that have been done in this area are those which have been done in isolation even though some have considered effect of foreign inflows on the economic growth. For instance a study by Ocharo (2013), investigated the effect of private capital inflows on the economic growth of Kenya. The author determined to consider only private capital inflows but not capital inflows in general. The effect of private capital inflows on economic growth may give totally different results to the results which will have been realized if total capital inflows were considered.

Studies that considered total foreign inflows on the economic growth include Raza *et al.* (2011), in Pakistan covering a period of between 1985 and 2010, Rehman *et al.* (2016), for 21 developing countries covering a period of between 1990 to 2013 and Beatrice *et al.* (2017), in Kenya that used panel data and covered a period of between 2000 and 2015. It is evident that in these studies, it is either one country that is considered or a group of many countries. The result that may be achieved when many countries are used may not be the same as to when one country is being considered. This is possible since a certain negative or positive effect in one country may cancel the effect in another country and at the end of the day a wrong conclusion can be made regarding those countries in general. It is possible that a wrong assumption can be made.

Other studies that have been done in isolation include: Were (2001), in Kenya and Okon (2017), in Nigeria that examined the effect of foreign debt on economic growth of their respective countries. Asiedu (2014), and Ekanayake and Chatrna (2010), considered foreign aid, Szkorupová (2014), in Slovakia considered economic growth, exports and FDI, Rahman (2015), and Hlavacek *et al.* (2016), considered foreign direct investment only and many others that have also been done in isolation.

2.5 Research Gaps

Studies that have been done in this area have considered both developing and developed world. Some of them have considered a group of many countries using panel data and some of them have considered just one country using time series data. When many countries are being considered, a general conclusion is being made and when one country is being considered, a specific conclusion is being made. It is evident that in all of these

studies, a small group of countries have not been considered more especially from East Africa.

Researchers have attributed economic growth partially to capital flows but it is not clear which flow contributes most to economic growth, as many studies have researched on one inflow and not all in one model. Also studies have also shown that there is contradicting results in different countries and in different regions. For instance most of the results in the developed world always contradict those realized in the developing world.

Since there is limited studies on the effect of foreign inflows in East Africa and also it is not clear which inflow affects the economy most, hence causing the different rates of economic growth. This study intends to fill these gaps by considering all the member countries in East Africa. The study is also going to consider all foreign inflows in one model to examine which one affects the economy most.

III. RESEARCH METHODOLOGY

3.1 Introduction

The chapter captures the study's research design as well as target population, sampling technique, sample size, data collection instrument, data collection procedure, data analysis, its presentation and diagnostic tests.

3.2 Research Design

Research design is described as a detailed outline on how an investigation takes place. According to Cooper (2011), a research design consists of a blue-print purposely for collection exercise, measurement and data analysis. Causal type of research design was therefore used so as to realize the objectives of the study. This research design was appropriate because it identified the cause and effect variables as well as identifying the nature of cause-and-effect relationship between foreign inflows and economic growth. This is the same research design that was used by Benati (2015) to identify the trade-off between inflation and unemployment and therefore despite of its weaknesses, it was deemed to be appropriate in this study. This research design also allows for systematic selection of subjects since it is associated with greater levels of internal validity.

3.3 Target Population

Population is a complete set of individuals, cases of objectives with some common observable characteristics (Lawson, 2012). The target population for this study was the entire East African economy for the period of 27 years from 1990 to 2016. This period was selected since it was a period of time when the countries of East Africa had witnessed a huge increase in foreign inflows and that data for all countries was available.

3.4 Sampling Technique

Purposive sampling technique was used in this study. The technique involved a deliberate selection of some specific units of the entire universe so as to form a representation of the entire population. This technique was significant in this study since it helped the researcher to come up with specific periods whereby unique events happened such that analysis is done accordingly. The period chosen was between 1990 and 2016.

3.5 Sampling Size

A sample is a representation of the element of target population that consists some of the elements of that population (Cooper & Schindler, 2006). A sample size refers to the number of units that are chosen from the gathered data to represent the entire population. Sampling therefore gives a representation of the population such that when a unit is selected, a conclusion can be drawn on the entire population. Time series data will be used in this study covering a period from 1990 to 2016 will be used to analyze the effect of foreign inflows on economic growth in East Africa.

3.6 Data Collection Instrument

Secondary type of data was relied upon in the whole of this study. Secondary data collection sheet was developed with all variables to be used in this study included. All of these variables corresponded to the respective years from 1990 to 2016. This tool was appropriate since the data of interest which was used was time series data. The causal relationship between the dependent and independent variables were arrived at after the analysis was done using E-views Statistical software.

3.7 Data Collection Procedures

Desk study was employed as the main method of data collection. Since secondary data refers to data which is being extracted from published documents of a given source, the data was therefore obtained from World Bank's data base. Secondary data was appropriate for this study since the economic variables that were under study are those which were supposed to have been observed and published for a continuous number of years. It is also difficult and expensive for a researcher to collect data covering a large area such as the entire economy of a country and to solve this problem, secondary data was used since it provided both large and quality databases.

3.8 Data Analysis and Presentation

3.8.1 Data Analysis

This consists of the process of cleaning, inspecting, and transforming as well as modeling of data with an aim of discovering required information in giving suggestions on conclusions as well as supporting decision making (Serakan, 2006). After the collection of raw data, the data will be modified and various diagnostic tests done on it before it is taken for analysis. Eviews statistical software will be used in the analysis process.

Multiple regression was used to determine the effect of foreign inflows on the economic growth of East Africa. Abala (2014) and Niazi *et al.* (2011), used this model with few adjustments on the variables used. In this study, Economic Growth of East Africa will be the dependent variable whereas Net Exports, Foreign Debt, Foreign Aid, Remittances and Foreign Direct Investment will be the independent variables. The model was therefore given as:

$$EG = f(FD, FA, FDI, REM) \dots\dots\dots 3.1$$

With the inclusion of the error term, the equation can be written as:

$$EG_t = \beta_0 + \beta_1 FD_t + \beta_2 FDI_t + \beta_3 FA_t + \beta_4 REM_t + \varepsilon \dots\dots\dots 3.2$$

Where;

EG_t =Economic Growth at time t proxies by annual percentage change in real GDP

FD_t =Foreign Debt at time t.

FA_t = Foreign Aid at time t.

FDI_t = Foreign Direct Investment at time t.

REM_t = Remittances at time t.

ε = Stochastic error term.

The regression coefficients $\beta_0, \beta_1, \beta_2, \beta_3$ and β_4 will be estimated whereby β_0 is the constant, β_1 is foreign debt coefficient, β_2 is the foreign aid coefficient, β_3 is the foreign direct investment coefficient and β_4 is the coefficient of remittances.

In the equation EG is a Percentage change of the gross domestic product over a one year period, FD is a percentage change of foreign debt over a one year period, FA is a percentage change of foreign aid over a one year period, FDI is measured is a percentage change of foreign aid over a one year period and REM is a percentage change of remittances over a one year period. But the study used the absolute figures of the variables but not the rates.

It is hypothesized that increase in foreign aid, foreign debt, foreign direct investment and remittances will increase the economic growth of East Africa. β_0 measures the change in economic growth when all other variables equals to zero, β_1 measures the change in economic growth when foreign debt growth rate changes by a unit given that all other variables are kept constant, β_2 measures the change in economic growth when foreign direct investment growth rate changes by a unit given that all other variables are kept constant, β_3 measures the change in economic growth when foreign aid growth rate changes by a unit given that all other variables are kept constant and β_4 measures the change in economic growth when remittances growth rate changes by a unit given that all other variables are kept constant.

Equation 3.2 was estimated using the Ordinary Least Squares method since assumptions of OLS such as linearity in parameters, random drawing of observations, zero conditional mean and homoscedasticity are all satisfied.

3.8.2 Data Presentation

The Findings from data analysis were presented in graphs and tables. Various descriptive statistics like mean and standard deviation were also used to present the findings including the correlation and regression analysis.

3.9 Diagnostic Tests

The following tests were done:

3.9.1 Normality Test

The purpose for this test was to ensure that data used for various variables was distributed normally with a zero mean and constant variance. Jarque- Bera statistic was used since it is taken to be simple but always applicable at times when secondary time series data is employed. The null hypothesis stated that the population is distributed normally, against the other alternative hypothesis which stated that it is not normally distributed. The null hypothesis is rejected if the p-value is less than the already identified level of significance and therefore conclude that data are not taken from a normal population. You cannot reject the null hypothesis if the p-value is not less than the already identified level of significance.

3.9.2 Multicollinearity

Multicollinearity is said to take place when two independent variables have a near perfect relationship. It was tested by running a correlation between the independent variables. The null hypothesis to be tested was that there is no perfect correlation between the independent variables.

3.9.3 Autocorrelation

Autocorrelation refers to the similarity degree that exist between a given [time series](#) data and its lagged version over successive time periods or intervals. Presence of autocorrelation needs to be tested using the Durbin Watson test. It is a statistic

which lies between 0 and 4. If a value of 2 is realized in a sample, then it means that there is no autocorrelation. The null hypothesis for Durbin Watson test is H0 if there is no first order autocorrelation and H1 if first order correlation exists.

IV. RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The chapter presents analysis of data, results, interpretation and study discussion . It begins by outlining diagnostic tests that were carried out and then gives the model results.

4.2 Diagnostic Tests

Diagnostic tests carried out include descriptive statistics summary, granger causality tests, unit root tests, ramsey-reset test, heteroscedasticity test, recursive coefficient estimates test and chow forecast test

4.2.1 Descriptive Statistics

The various descriptive statistics that were analyzed include mean, median, maximum and minimum value, standard deviation, total value as well as the sum squared deviation.

Table 1 Descriptive Statistics Summary

	GDP	FD	FDI	FA	REM
Mean	3.27E+13	5.90E+13	7.52E+11	7.48E+10	2.94E+11
Median	2.47E+13	4.34E+13	5.92E+11	6.00E+10	1.89E+11
Maximum	6.22E+13	1.29E+14	2.27E+12	1.24E+11	6.74E+11
Minimum	1.58E+13	1.94E+13	9.13E+10	3.67E+10	1.14E+11
Std. Dev.	1.48E+13	3.41E+13	6.24E+11	3.02E+10	1.84E+11
Jarque-Bera	3.368510	3.934594	3.044236	3.644441	4.590353
Sum	9.49E+14	1.71E+15	2.18E+13	2.17E+12	8.52E+12
Sum Sq. Dev	6.15E+27	3.25+28	1.09E+25	2.55E+22	9.49E+23
Observations	27	27	27	27	27

Table 1. Presents various descriptive statistics as given by the eviews statistical software. The data ranges from 1990 to 2016. The observations in total for each variable was 27. The average for the gross domestic product was found to be 3.27×10^{13} with a standard deviation of 1.48×10^{13} and 6.22×10^{13} US dollars and 1.58×10^{13} US dollars as the maximum and minimum values respectively. Its median value was found to be 2.47×10^{13} US dollars. In case of foreign debt, foreign direct investment, foreign aid and remittances, their respective means are 5.90×10^{13} , 7.52×10^{11} , 7.48×10^{10} and 2.94×10^{11} US dollars. Their respective standard deviations are 3.41×10^{13} , 6.24×10^{11} , 3.02×10^{10} and 1.84×10^{11} . In case of maximum and minimum values, they are as presented on Table 1.

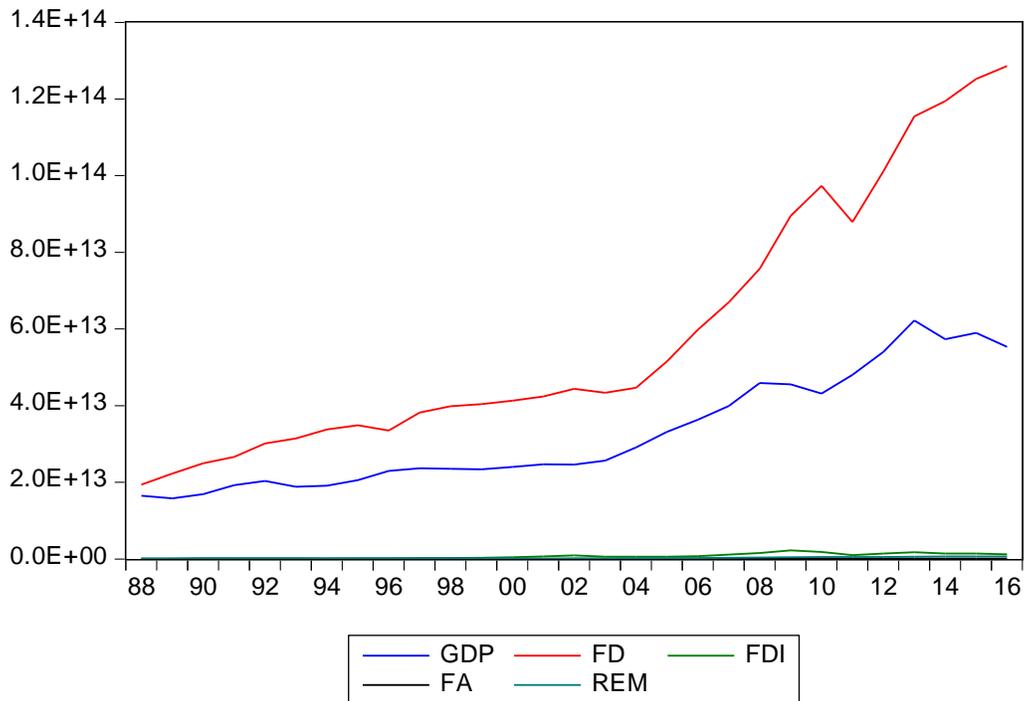


Figure 3: Variable Trend from 1990 to 2016

Figure 3 presents the trend of the variables that were used in the study namely; gross domestic product, foreign debt, foreign direct investment, foreign aid and remittances. It is evident that the variables shows an increasing trend from 1990 to 2016. For instance in 1990, the value for gross domestic product is 16,904,767,616,400.80 but in 2016 it increased to 71,968,122,435,965.90. The trend is the same for the rest of the other variables.

4.2.2 Granger Causality Test

Granger causality test can be computed using various softwares but this study employed eviews statistical software. The purpose for this test was to show the relationship direction between variables that were used in the study like gross domestic product, foreign debt, foreign aid, foreign direct investment, and remittances. The null hypothesis which stated that one of the variables does not granger cause another variable is not accepted in case the p-value for the effect of one variable on another is not more than 0.05. If it is not less than 0.05 then it is not accepted but if it is no more than 5.00 percent it is accepted.

Table 2: Granger Causality Test Results

Null Hypothesis	Obs	F-Statistics	Prob.
FD Granger causes not GDP	27	0.82375	0.4508
GDP Granger causes not FD	27	2.74088	0.0847
GDP Granger causes not FDI	27	3.18224	0.0594
GDP Granger causes not FA	27	1.75782	0.1939
FA Granger causes not GDP	27	1.00698	0.3802
GDP Granger causes not FA	27	2.31966	0.1199
REM Granger causes not GDP	27	0.81920	0.4527
GDP Granger causes not REM	27	5.98388	0.0078
FDI Granger causes not FD	27	1.17408	0.3262
FD Granger causes not FDI	27	1.11811	0.3433
FA Granger causes not FD	27	2.50716	0.1026
FD Granger causes not FA	27	0.76701	0.4755
REM Granger causes not FD	27	1.48823	0.2459
FD Granger causes not REM	27	2.11318	0.1428

FA Granger causes not FDI	27	2.75115	0.0840
FDI Granger causes not FA	27	1.47570	0.2486
REM Granger causes not FDI	27	1.53025	0.2369
FDI Granger causes not REM	27	3.61850	0.0423
REM Granger causes not FA	27	1.92735	0.1674
FA Granger causes not REM	27	3.31520	0.0535

Table 2 shows that the p-value one variable's effect on another is not less than 0.05. The null hypothesis that one of the variables granger causes not another variable cannot be therefore rejected.

4.2.3 Multicollinearity Test

Multicollinearity test was carried out so as to test whether the independent variables correlate with each other. Regression is not possible in case there is perfect correlation between one variable and the other variable.

Table 3: Correlation Matrix

	FD	FDI	FA	REM
FD	1.000000	0.871188	0.941889	0.987558
FDI	0.871188	1.000000	0.853084	0.846007
FA	0.941889	0.853084	1.000000	0.950254
REM	0.987558	0.846007	0.950254	1.000000

Multicollinearity is realized when the correlation coefficient is more than 0.8 in absolute terms. When that is the case a variable with the highest p-value is dropped. In our case even though the correlation coefficients are more than 0.8 in absolute terms, regression analysis was possible and since the objective of the study was just to show the effect of foreign inflows on gross domestic product, the researcher decided to use all the variables. The findings contradicts with the findings of Rahman (2015), that there is none positive correlation between economic growth and FDI. Since our FDI relates positively with Economic growth.

4.2.4 Stationality Test

Unit root tests were used to test for stationarity of the variables while employing the ADF tests with lag length selection based on the criterion of Schwarz Info (SIC). The variable is stationary if its p-value is not more than 0.05 and t-Statistic not less than 2.0 in absolute figures.

Table 4: Stationality Test Results

Variable	t-Statistic (critical value at 5% level)	Prob	Stationality Level
Gross domestic product	-4.7819	0.0041	First differencing
Foreign debt	-7.3913	0.0000	Second differencing
Foreign direct investment	-6.3194	0.0001	Second differencing
Foreign aid	-6.6743	0.0001	Second differencing
Remittances	-7.2282	0.0000	Second differencing

Table 4 shows that with the exception of gross domestic product which was stationary at the first level differencing, the other variables were stationary at second differencing since the respective p-values are less than 0.05 and t-statistic more than 2 in absolute terms.

4.2.5 Normality Test

The test is done purposely to find out the normal distribution of the. To conclude that the residuals are normally distributed, the Jarque- Bera statistic has to be insignificant and at the same time the histogram be bell-shaped.

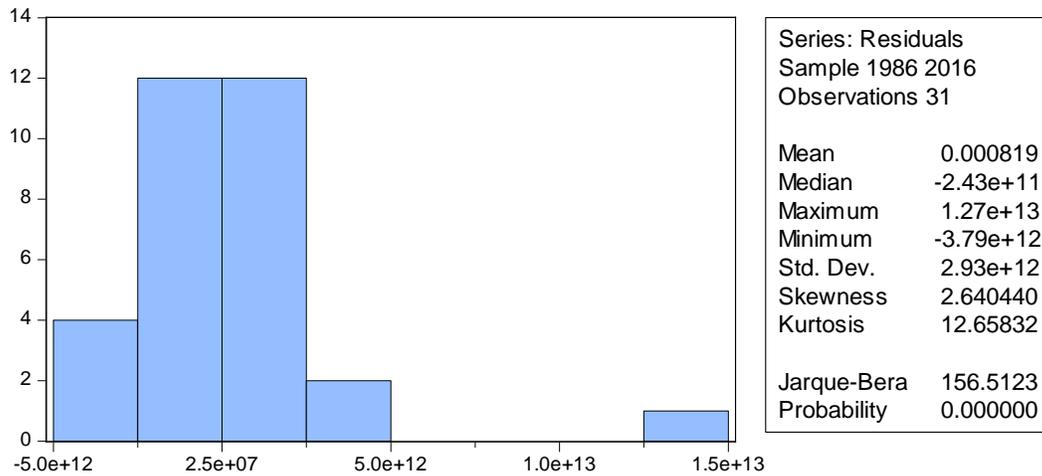


Figure 4: Bell shaped histogram

It is evident from Figure 4 that the histogram is bell shaped and the p-value is less than 0.05. It is therefore concluded that the residuals are normally distributed thus giving viable results.

4.2.6 Heteroscedasticity Test

This test is done so as to determine whether the error term's variance which appears in the population regression functions are the same. The results were presented as in Table 5 using the Breusch-Pagan-Godfrey test.

Table 5: Heteroscedasticity Test Results

F-Statistic	2.547176	Prob. F (4,24)	0.0655
Obs *R –Squared	8.642400	Prob. Chi-Square(4)	0.0707
Scaled explained SS	9.418866	Prob. Chi-Square(4)	0.0514

There is no heteroscedasticity if the p-value is more than 0.05. In this case the p-value is 0.0514 which is more than 0.05.

4.2.7 Ramsey Reset Test

The essence of this test is to test the specification errors which may exist in the model. They include: correlation that may exist between the disturbance term and explanatory variables, incorrect functional form and omission of one of the variables . If the p - value is not more than than 5.0 percent level of significance level, the null hypothesis is rejected and the conclusion is made that the model is well specified. The p - value in this case is not less than 5.0 percent level of significance and therefore then the null hypothesis is not rejected and the conclusion is made that the model is misspecified.

Table 6: Ramsey Reset Test Results

	Value	df	Probability
t-statistic	2.689127	23	0.0131
F-statistic	7.231405	(1, 23)	0.0131
Likelihood ratio	7.928225	1	0.0049

Table 6 shows that the p-value is less than 0.05 and therefore the model is said to be well specified.

4.2.8 Chow Forecast Test

This test was carried out to show the stability of the coefficients in a regression model said to be multiple splitting data using break points. This test tests whether structural changes exist in the model. The null hypothesis which is being tested states that no structural change that exist in the coefficients. The null hypothesis will not be accepted in case the p - value is not more than 0.05.

Table 7: Chow Forecast Test Results

	Value	df	Probability
F-statistic	8.789812	(17, 7)	0.0036
Likelihood ratio	90.09366	17	0.0000

The null hypothesis is not accepted since the p-value is not more 0.05.

4.2.9 Recursive Coefficient Estimates Test

This test was employed to test whether there is variable stability. It makes it possible to trace out evolution of the estimates for any of the coefficients as data sample which was employed in the process of estimation increases. There are two standard error bands of the estimated coefficients. If the blue line lies between the two red lines, then that is an indication that there is stability but if it goes outside the two red lines then that one indicates that there is instability.

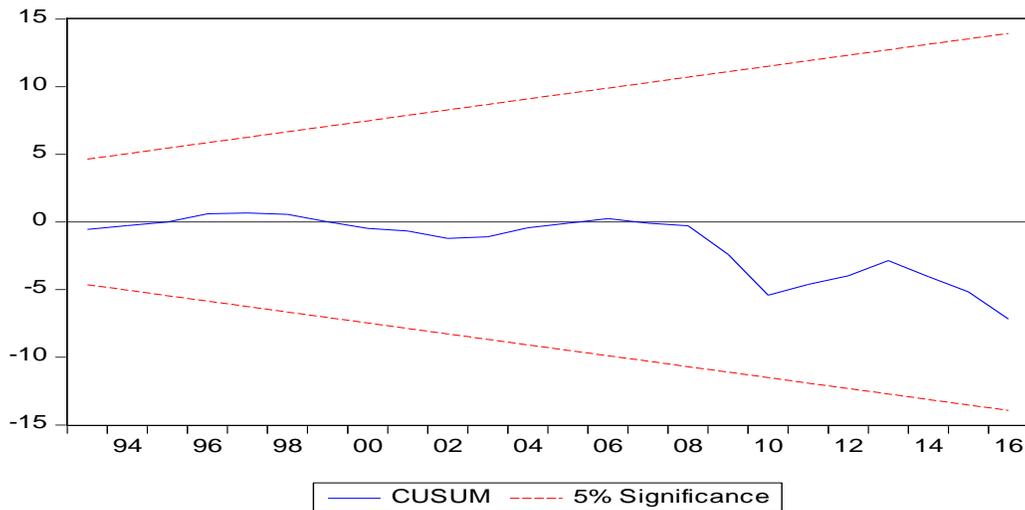


Figure 5: Variable Stability

It can therefore be concluded that there is stability since the blue line lies between the two red lines.

4.3 Regression Results

The general objective of the study was to examine the effect of foreign Inflows on economic growth of East Africa member countries. The study therefore intended to determine the effect of foreign direct investment on the economic growth of East Africa member countries, to investigate the effect of remittances on the economic growth of East Africa member countries, to find out the effect of foreign debt on the economic growth of East Africa member countries and to examine the effect of foreign aid on the economic growth of East Africa member countries.

Table 8: Regression Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Foreign debt	0.264002	0.106239	2.484980	0.0203
Foreign direct investment	2.572245	1.858932	1.383722	0.1792
Foreign aid	64.18821	58.54585	1.096375	0.2838
Remittances	12.86648	20.06682	0.641182	0.5275
Constant	6.64E+12	2.17E+12	3.058937	0.0054

Gross domestic product of East Africa member countries depends on foreign debt, foreign direct investment, foreign aid and remittances. It was found out that only the constant value of

the foreign debt coefficient were said to be significant since they had a p – value of less than 0.05 and their t-statistic of more than 2.0 in absolute terms. The coefficients of the other variables are

insignificant as it was found out that their p – values are more than 0.05 and t-statistic less than 2.0 in absolute terms. The findings contradicts studies of Vihn (2009), Who found out that Investments had positive and statistically significant coefficient.who found that portfolio investment had a positive and statistically significant coefficient.

Given that all other factors are kept constant, gross domestic product increases by 0.264002 units when foreign debt increases by one unit. Gross domestic product also increases by 2.572245 units when foreign direct investment increases by one unit given that all other factors are kept constant. Increase in foreign aid and remittances also by one unit also leads to an increase in gross domestic product by 64.18821 units and 12.86648 units respectively given that all other factors are kept constant. In case foreign debt, foreign direct investment, foreign aid and remittances equals to zero, gross domestic product is 6.64×10^{12} units. It is evident that 96.097 percent of the changes in the independent variables (foreign debt, foreign direct investment, foreign aid and remittances) is explained by the dependent variable (gross domestic product) since adjusted r squared is 0.960972.

4.4 Discussion of the Findings

The study findings reveal that there is no serial correlation between the variables and that they do not granger cause one another according to the correlation and granger causality tests that were carried out. With the exception of gross domestic product which was stationary at first difference, all other variables (foreign debt, foreign direct investment, foreign aid and remittances) were found to be stationary at second order differencing. Other diagnostic tests also indicate that data which was used in the study as well as the employed model were all suitable in the analysis process.

It was found out that all the independent variables that were used in the study relate positively with gross domestic product even though it is only the effect of foreign debt which is found to be significant. The positive and significant effect of foreign debt on gross domestic product shows that money borrowed from outside countries is invested in viable projects whose return is more than the principal amount to be paid together with interest.

The positive effect of foreign direct investment on gross domestic product of East Africa member countries also is an indication that foreign investors leave much of the proceeds of their investmet in the invested countries than what they transfer to their countries which contributes to increase in gross domestic product. The effect is not significant and indication that what is left in the invested countries is not such substantial. It is also evident that effect of foreign aid on gross domestic product is positive even though it is not significant. This implies that money given as foreign aid is also well invested in viable projects whose returns are more than the cost incurred in coming up with such a project. If given in substancial amounts, the effect may turn out to significant. The same positive and insignificant effect is also in the case of remittances.

Remittances which are usually given in foreign denominated currencies increase the level of foreign currency in the member countries. Foreign currencies are used to pay for imports imported to member countries which otherwise will have

cost more in case there were no such foreign currencies. This in the long run increases gross domestic product. The constant value shows that there are other factors that contributes to increase in gross domestic product of East Africa member countries whose effects are significant a part from foreign debt, foreign direct investment, foreign aid and remittances.

4.5 Hypothesis Testing

The test for the hypothesis was carried out by running a regression analysis using multiple Ordinary Least Squares. The null hypothesis was; foreign debt, foreign direct investment, foreign aid and remittances do not have a combined significant effect on the economic growth of East Africa member countries. It was found that F-statistic was 173.3569 and the p -value for the F-statistic was 0.0000. This is an indication that the null hypothesis was rejected implying that foreign debt, foreign direct investment, foreign aid and remittances have a combined significant influence on economic growth of the East African member countries.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary based on the research findings as well as the conclusion of the study and policy implications. Suggested areas for further study have also been presented.

5.2 Summary

Most studies on foreign inflows and economic growth have heavily focused on FDI as the only variable . The research have neglected other variables such as foreign debt, remittances, foreign aid and next exports making it difficult to know which inflow affects economic growth most. Since there is limited studies on the effect of foreign inflows in East Africa and also it is not clear which inflow affects the economy most, this study will look into effects of foreign inflows on economic growth in East Africa.

5.2.1 Foreign Direct Investment

The effect of foreign direct investment on gross domestic product of East Africa member countries was also found to be positive and statistically insignificant. This is evidenced from the fact that its p -value is 0.1792 which is more than 0.05 and t-statistic value of 1.8589 which is less than 2 in absolute terms. This correlates with what (Hlavacek *et al*, 2016) mentioned in chapter 2 after he carried out comparative analysis on FDI and GDP for countries in Eastern and Central Europe.

This implies that the gross domestic product increases by an significant value of 2.572245 units when foreign direct investment increases by a unit assuming that all other factors are kept constant. By Foreign Direct Investment being positive on GDP shows that FDI plays an important role in contributing into economic growth of East Africa Member Countries.

5.2.2 Remittances

It is also evident that the effect of remittances on gross domestic product of East Africa member countries is positive but

statistically insignificant. This is the case since its p-value is 0.5275 which is more than 0.05 and t-statistic value of 0.641182 which is less than 2 in absolute terms.

This implies that the gross domestic product increases by an insignificant value of 12.86648 units when remittances increases by a unit assuming that all other factors are kept constant. From the study it is evident that economic growth is affected by remittances, this maybe attributed to how many citizens of East African countries working in developed countries remit to their families in their home countries.

5.2.3 Foreign Debt

Descriptive statistics reveal that foreign debt is more volatile followed by gross domestic product, foreign direct investment, remittances and foreign aid. The effect of foreign debt on gross domestic product of East Africa member countries was found to be positive and statistically significant. This is evidenced from the fact that its p-value is 0.0203 which is less than 0.05 and t-statistic value of 2.48498 which is more than 2 in absolute terms.

This implies that the gross domestic product increases by a significant value of 0.264002 units when foreign debt increases by a unit assuming that all other factors are kept constant.

5.2.4 Foreign Aid

On the same note, the effect of foreign aid on gross domestic product of East Africa member countries was found to be positive and statistically insignificant. This is evidenced from the fact that its p-value is 0.2838 which is more than 0.05 and t-statistic value of 1.096375 which is less than 2 in absolute terms. Implying that the gross domestic product increases by an insignificant value of 64.18821 units when foreign aid increases by a unit assuming that all other factors are kept constant.

5.3 Conclusion

5.3.1 Foreign Direct Investment

The study concludes that the effect of foreign direct investment on gross domestic product of East Africa member countries is positive and statistically insignificant. It therefore implies that if foreign direct investment increases, gross domestic product also increases insignificantly and it decreases insignificantly in case foreign direct investment decreases, given that all other factors are kept constant. Hence it is one of the foreign inflows which affect economic growth

5.3.2 Remittances

From the study a conclusion can be drawn that the effect of remittances on gross domestic product of East Africa member countries is positive and statistically insignificant. Implying that if remittances increases, gross domestic product also increases insignificantly and it decreases insignificantly in case remittances decreases, given that all other factors are kept constant.

5.3.3 Foreign Debt

The study concludes that the effect of foreign debt on gross domestic product of East Africa member countries is positive and statistically significant. It therefore implies that if foreign debt increases, gross domestic product also increases significantly and it decreases significantly in case foreign debt

decreases, given that all other factors are kept constant and if properly invested.

5.3.4 Foreign Aid

Lastly the study concludes that the effect of foreign aid on gross domestic product of East Africa member countries is positive but statistically insignificant. It therefore implies that if foreign aid increases, gross domestic product also increases insignificantly and it decreases insignificantly in case foreign aid decreases, given that all other factors are kept constant.

5.4 Policy Recommendations

The study recommends that more external borrowing be done on condition that borrowed funds are well invested in viable projects whose returns is far above the principal and the interest to be paid.

The governments of the respective countries should increase funds set aside for promotions done abroad on East Africa's conducive environment to invest. By so doing more foreign investments will be directed to the country which will lead to the realization of significant effect on gross domestic product.

The governments of the respective countries should also seek for more aid from abroad and ensure that those funds which have been received are well invested with minimal wastage so as to increase the returns which will translate to significant positive effect on gross domestic product.

Also the governments of the respective countries should encourage their citizens at the diaspora to increase remittances in their countries since it has been found to have a positive effect on gross domestic product. By so doing the significant effect may be realized at the of the day.

5.5 Areas for Further Study

More studies need to be done on this area more especially in East Africa member countries to find out the other factors that must have an effect on the gross domestic product. This is necessary since it was found out the study that there is a significant constant value even if the other variables were zero.

Since there is no any other study that has been using the same variables on gross domestic product in the East Africa member countries in the short run, the study advises the same study to be done but now in the short run. As the study employed ordinary least squares method as a method of estimation, other estimation methods may be explored and compare the results in future studies

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