

EFFECTS OF FOREIGN AID ON ECONOMIC GROWTH IN KENYA

BY

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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ABSTRACT

This study focused on the relationship between foreign aid and economic growth in Kenya. The dissertation had three objectives as follows: to establish the impact of emergency aid to economic growth, to examine the effects of concessional loans to economic growth and finally to evaluate the impact of grants to economic growth in Kenya. Extensive literature was reviewed to establish the significance of the study, highlight knowledge gaps and provide benchmark for comparison of the findings. The study would be invaluable to the various stakeholders such as policy makers and different government agencies by supplying vital information relating to foreign aid that would nurture economic growth in Kenya. The study used secondary annual time series data acquired from World Bank, Central Bank of Kenya and Kenya National Bureau of Statistics. The study sampled a period of 55 years from 1963 to 2018 in Kenya. Descriptive research design was used. Time series analysis was applied to check the relationship among the variables. STATA and MS Excel were used in data analysis. Econometric modelling was used to check the relationship between the variables. Vector Error Correction Model (VECM) was fitted. The results were consequently displayed using charts, tables and percentages. The study concluded that foreign aid had significant effects on economic growth through filling domestic savings and foreign exchange traps. The study on the effects of foreign aid has experienced mixed reactions with various scholars arriving at different conclusions. There are those researchers that are in agreement with notion that foreign aid results in economic growth of a country while others do not. Those who support such conclusions claim that foreign aid helps Least Developed Countries to grow economically and improve human development especially countries with sound political and economic policies. However, scholars who are against feel that aid creates a moral hazard problem whereby the government can spend funds without proper budget policy being sure that the donors will come into rescue in case of any financial difficulty. I recommend that the government should ensure that the loans and aid should be channeled in sectors of economy that would have significant effect on growth. Also, there should be policies and regulation in place to ensure that aid received is not embezzled or misappropriated. This in essence requires policy makers in the government, civil society and oversight bodies such as National Assembly, Auditor General, Ethics and Anti-Corruption Commission among others to be extra vigilant and judicious in ensuring that aid received is used for intended purposes.

Keywords: Economic Growth, Foreign Aid, Policy Makers, Descriptive Research Design, Recurrent Expenditure, Domestic Saving, Economic Modelling, Foreign Exchange Traps.

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DEDICATION

I hereby dedicate this study to my loving wife Immaculate and my children Stanley and Whitney for enormous support, considerate and infinite inspirations towards the accomplishment of this study. May the Almighty God bless you.

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LIST OF ABBREVIATION AND ACRONYMS

CBK	Central Bank of Kenya
DAC	Development Assistance Committee
FA	Foreign Aid
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNI	Gross National Income
HDI	Human Development Index
IMF	International Monetary Fund
KESSP	Kenya Education Sector Support Project
KRA	Key Result Areas
LCDs	Least Developed Countries
MDAs	Ministries, Department and Agencies
MDGs	Millennium Development Goals
MNCs	Multinational Corporations
MTEPs	Medium Term Projections
NGOs	Non-Government Organizations
ODA	Official Development Assistance
OLS	Ordinary Least Square Method
OECD	Organization for Economic Cooperation and Development
SAP	Structural Adjustment Programme
SSA	Sub Sahara Africa
TCG	Technical Cooperation Grants
UN	United Nations
VAR	Vector Auto Regressive
VECM	Vector Error Correction Model
WB	World Bank

OPERATIONAL DEFINITION OF TERMS

Bilateral Aid- aid from a single nation to another nation mostly from developed nation to a developing nation (Moyo 2009)

Economic Growth–This is the raise in capacity of the economy of a nation to intensify aggregate creation of goods and services, related from one year to the next (Uwatt, 2003).

External debt–This is debt a country owes foreign investors including governments, commercial banks or international financial institutions (Chami *et al.*, 2008).

Foreign Aid- This is defined as monetary flows, technological support and supplies which are intended to advance economic growth and welfare as their key aim and given as either grants or subsidized loans. (OECD 2013)

Multilateral Aid– Aid given by a group of nations or financial institutions on behalf of a group of nations such as the International Monetary Fund (IMF) and World Bank (Moyo 2009)

Official Development Assistance-Aid to a Least Developed Country by individuals, organizations of other government with intention of promoting the welfare and economic development of the nation (Stojanov and Strielkowski ,2013)

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

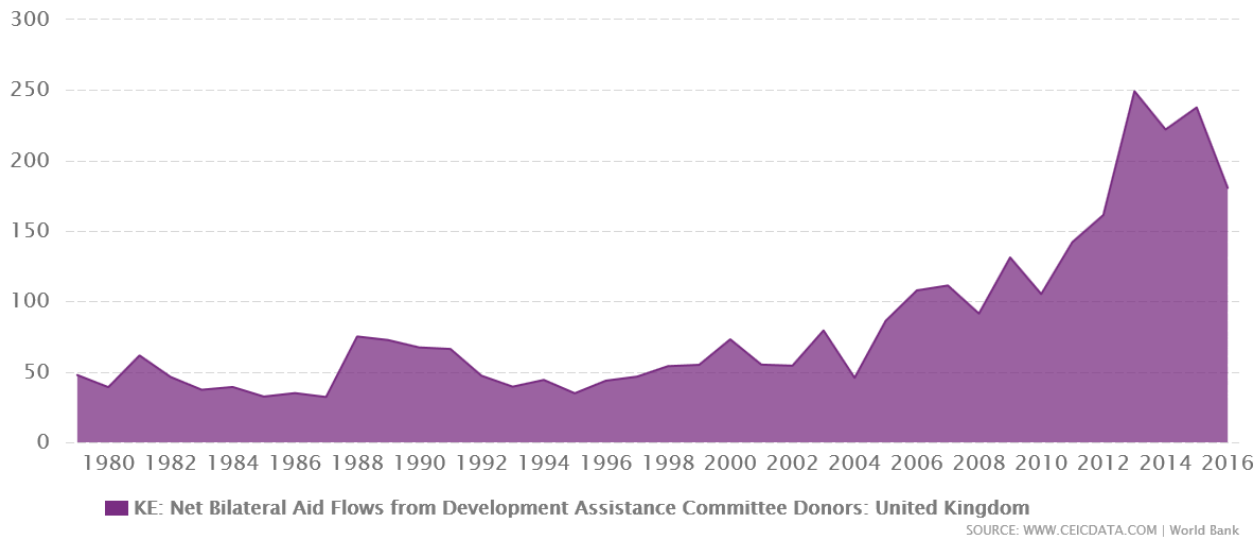
Foreign aid refers to all forms of loans and grants that are undertaken by a developed nations to a developing nation with the intention of supporting economic development or welfare, with a minimum of 25% as grant element as stated by Organization for Economic Cooperation and Development (OECD Fact sheet 2013).The Development Assistance Committee (DAC) accordingly describes foreign aid as monetary flows, technological support and supplies which are intended to advance economic growth and welfare as their key aim and given as either grant or concessional loans. The United Nations Millennium Declaration candidly recognizes that foreign aid is also referred to as Official Development Assistance (ODA)and it is very crucial and alternative means of funds to developing nations for them to achieve Millennium Development Goals (MDGs) (United Nations 2015)

Global donor community asserts that the chief purpose for giving foreign aid is to promote growth of the economy and reduction of poverty. Alesina and Dollar (2010) reported that the pattern of giving aid was driven greatly by calculated consideration such as to ensure opportunities for investors, open markets, cement commercial and financial relations. According Radelet (2006) foreign aid is a major element of external capital flow to Least Developed Countries (LCD). However, not too many middle-income economies where capital flows from private sector are greatly significant. According to Martins (2010) external resource inflow can be defined as flow of capital and financial resources to a nation in form of aid, remittances, foreign direct investment and external debt. In developing countries, internal savings rates are not sufficient to provide enough resources for investment. Through exports, foreign exchanges obtained in developing countries are not sufficient to fund expected imports of capital goods as established by Hansen, Henrik and Tarp (2001). United Nations Paris declaration of 2005 obligated donors to give

dependable, analytical commitment of foreign aid over multiyear structure and release the aid as scheduled and in predictive way in accordance with agreed programs.

Since independence, Kenya has greatly depended on Official Development Assistance (ODA) for social investment, recurrent and capital expenditure. Mwega (2004) states that 78% of Kenya's ODA has been provided by bilateral donors and contributions by multilateral donors improved fairly in 1980s and early 1990s owing to release of aid by World Bank's Structural Adjustment Programme (SAP). According to OECD-DAC (2013) average flow of multilateral donor aid in Kenya recorded a high increase from 1990s to 2000 compared to other periods. Moreover, period ranging from 2001 to 2011 documented considerable increase in foreign aid disbursement from multilateral contributors. This could largely be linked to more donor interest in Kenya due to government change in the year 2002 after exit of President Daniel Moi and taking over of President Mwai Kibaki. There was a steady growth of bilateral aid flow in the period 1979 to 1989. According to OECD-DAC (2013) this period documented the biggest ODA disbursement in history of Kenya. This can be attributed largely to the need to protect the economy from consequences of Structural Adjustment Programs (SAPs), in order to sustain the serious transformations, the nation was undertaking in that time. During that time, Kenya experienced a large amount of bilateral aid directed from outside the mainstream administration of government. The Aid was channeled to civil society's organization and NGOs due to bad relation between the Kenyan government and aid giving nations. The donors had lost confidence in the government of the day due to poor governance. Kenya has been receiving different types of aid such as drugs and food aid.

Figure 1 Bilateral Aid flows from United Kingdom



Source.WWW.CEICDATA.COM/World Bank 2018

Figure 1 above show pattern of foreign aid from Britain which is one of the major donors to Kenya.

1.1.1 Evolution of foreign aid in Kenya

According to Kumar (2015) foreign aid has three main elements namely: it is meant for development or charitable, it is non-commercial and finally it is concessional. Foreign aid is additionally categorized into three classes: emergency aid, concessional loans and grants. Emergency aid is marshaled in response to catastrophes; concessional loans are basically soft loans that have no interest or interest rates below the market rate and have longer grace periods while grants are financial gifts given to state that are not required to be repaid (Investopedia 2016). Moyo (2009) explained that foreign aid can further be categorized according to parties involved such as bilateral aid and multilateral aid.

The bilateral aid is assistance from a one government to another government while multilateral aid is given by a combination of nations or financial institutions representing a group of nations such International Monetary Fund (IMF) and World Bank. Were (2011) established that external debts in Kenya are majorly official with larger chunk coming from multilateral donors such as World Bank. In addition, Were (2011) indicated that foreign debts had increased over the years thus also increasing debt load index. Were, further claimed that, foreign debts had impacted negatively on private investment and economic growth.

According to Chege (2008) aid granted to Kenya by various contributors differs from one year to another, depending on nation's institutional capability to absorb funds and holdups in project procurement process and preparation. According to GTZ (2009) Germany annual gives 200 million Euros to support Global funds to fight AIDs, TB and Malaria. In addition, Germany development aid policy puts on great importance good governance in partner nations with a commitment to fight corruption.

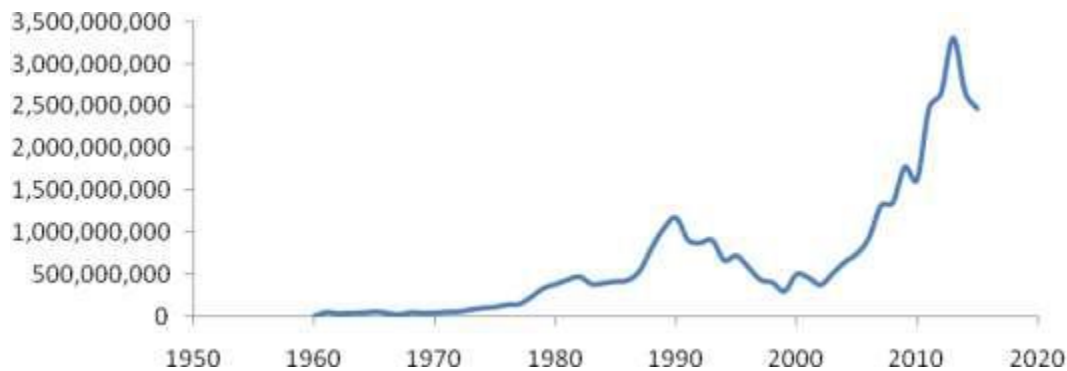
According to Burnside and Dollar (2012), aid may be obligatory source of funding for specific expenditure in areas such as health, education and public investment which is crucial to improve the standard of living of less fortunate people in developing countries. Kenya's development has depended heavily on foreign aid. Bakke (2015) established that in the 1980s foreign aid began to have significant results in Kenya. With the rise of Cold War, Western allies were focused to establish their control by resorting to use foreign aid as a bargaining tool. According to the World Bank (2014), Kenya was the earliest Sub Saharan Africa nation to be granted funding for structural adjustment. Later International Monetary Fund gave Kenya enhanced structural adjustment facility loan (ESAF). According to GoK (2000) the nominal aid flow during 1970s and 1980s was highest with over Kshs 16 billion equivalents to 11.5 percent of GDP in the financial year 1989/1990. Year 1980 was one of kind where Kenya experienced a huge economic crisis with a big budgetary deficit, drop in prices of coffee and an increase in oil prices. The government had no choice but to request for foreign aid to try to salvage the frail economy. The foreign aid enabled the government to maintain the outlook of a strong economy so as to avoid dwindling of power. This move proved futile as it led to further political woes given that economic fragility was inextricably linked to political fragility. Since 1980s Kenya has experienced erratic flow of foreign aid as per findings of M'Amanja and Morrissey (2005).

According to Wawire (2006) Kenya experienced a great standoff with international financiers of aid which led to freeze of aid. This was mainly due to the misunderstanding between Kenya Government and international donors. The misunderstanding was also due to failure by the Government to implement aid

conditionality's, consequently the foreign aid disbursements were short lived. Njeru (2003) stated that in July 1982 World Bank failed to give second batch of USD Fifty Million (50) due to laxity of Kenya in undertaking policy reforms. Due unsatisfactory domestic policies, the Republic of Kenya has experienced three aid freezes in the year 1992, 1997 and 2000 as a way of forcing the government of the day to take political and economic transformation and also rationalize public expenditure (World Bank, 2000).

According to Economic Survey (2001) the Kenyan Government responded by freezing ministerial expenditure below the approved estimates. The survey further stated that a review of supplementary estimates showed that all expenditures apart from salaries and essential services by MDAs were either stopped or reduced majorly during the second half of the Financial Year. Budget speech (2001) revealed that in the Financial Year 1999/2000 supplementary estimates showed a downward adjustment of expenditure to offset an estimated 9.4% decrease in revenue below the target. Consequently, this led to decline of total expenditure by approximately 5.42% and 0.82% was a decrease in recurrent expenditure and 4.6% was decrease in development expenditure. Foreign aid and politics have been walking hand in hand, whereby the ruling elite used foreign aid to enrich themselves and also to fund election campaigns. The politics came with ethnic clashes as witnessed in the year 1992, 1997 and the most recent after election bloodshed in 2007/2008. The West was hesitant to grant aid due to political turmoil. The donors are increasingly becoming concerned that part of development aid earmarked for vital projects is being diverted to fund other projects not budgeted. According to Uganda Debt Relief Network (2000) only 35% of external aid reaches intended targets thus highlighting the notion that aid to LDCs is suspect.

Figure 2 Trends of AID flow in Kenya since 1960



Source: [http:// unctadstat: unctad.org](http://unctadstat.unctad.org)

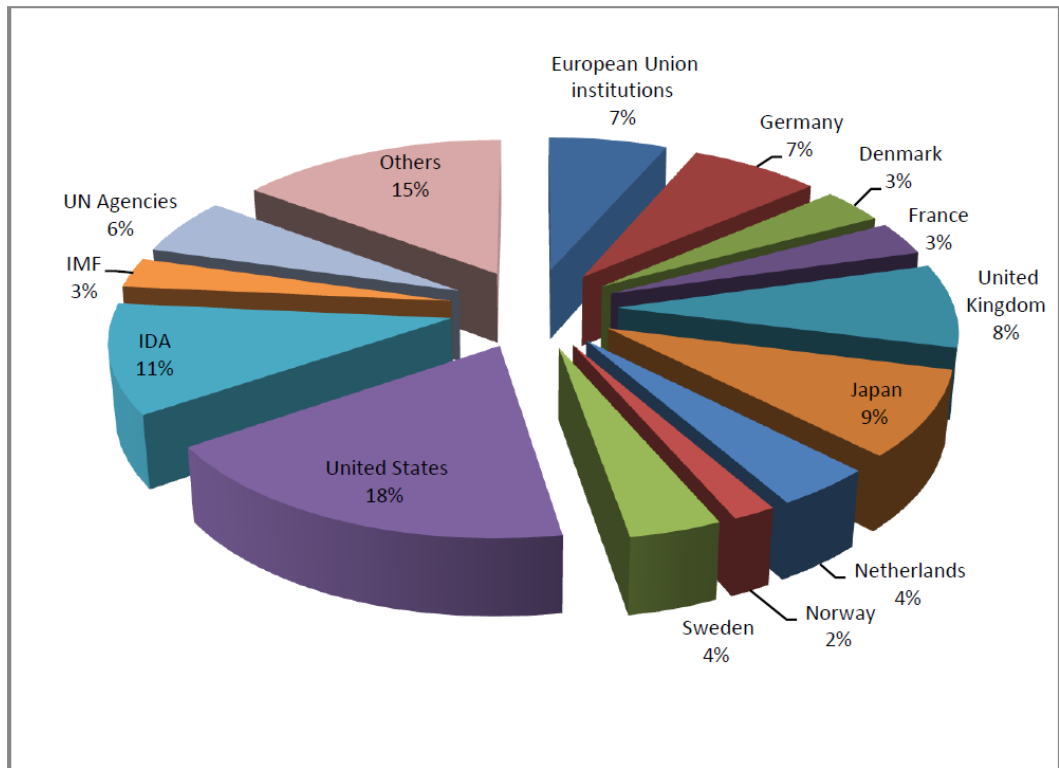
The amount is in USD billion.

Figure 2 above shows that there was a steady growth of aid flow in the period 1979 to 1989. Period ranging from 2001 to 2015 recorded considerable growth in foreign aid flows from multilateral donors. This can be related to increased donor confidence in Kenya after exit of Moi government.

Despite that Kenya is still a developing economy; there is good progress away from dependency on aid. The extent of aid dependency in Kenya has decreased over the years from 15.9% in 1993 to 2.3% in 1999 as percentage of GDP (World Bank, 2014). According to Hailu et.al (2012), the probability aid dependency departure is dependent with the degree of investment and enhancement of manufacturing industry. Economic growth has remained dismal even with increasing flow of foreign aid while poverty levels have increased steadily. According to Goldin *et al* (2002) economic growth is not adequate stipulation for poverty decrease, it is vital for sustained progress on poverty elimination. They also asserted that countries can accelerate their poverty reduction by promoting pro poor growth. According to Erega *et al* (2012) opponents of foreign aid asserts that foreign aid breeds corruption, weaken government and therefore cause Dutch disease (Doucouliagos and Paldam, 2009). An example in Kenya year 2009 an audit by Office of Auditor General revealed that foreign aid from Canada meant for Kenya Education Sector

Support Project (KESSP) was misappropriated whereby Kenya Shillings 103 million was not accounted for which could have otherwise influenced positively on Economic growth.

Figure 3 Composition of foreign Aid in Kenya by major donors between 1970 to 2018



Source: World Bank, World Development indicators 2018

Figure 3 above displays the main bilateral donors to Republic of Kenya. This are Britain, America, Japan, Germany, and Netherland. It is also evident that main multilateral givers are European Union, World Bank, IMF, and United Nations.

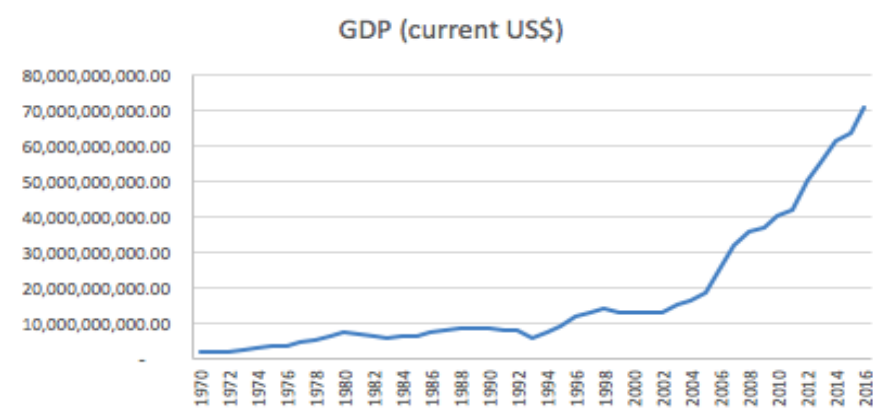
According to McCormick *et al.* (2007) People’s Republic of China is one of most significant contributors of foreign aid to Kenya and more so on areas of infrastructure assistance. The study states that loans and grants from China become frequent and bigger in 2002 after exit of Moi Government. China has invested in foreign aid in Sub Sahara African countries with an aim of achieving broader strategic objectives which include strengthening ties with resource rich African Countries. According to Onjala (2008) China percentage of foreign aid exceeded 1% after 2002 whereby since then China is one of the greatest bilateral

donors in recent times. According to UNDP (2006) the sum of grants and loans in Kenya stood at 1.23% of overall aid in 2003, 1.15% in 2004 and the rate raised significantly to 8.25% in subsequent year.

1.1.2 Economic Growth in Kenya

According to Akuwu (2014) economic growth can be enhanced through physical capital formation, international trade, technological advancement, human capital, investment in education, good governance external capital inflow and microeconomic policies. Kenya has experienced different phases of economic history after independence which can be categorized into three (3) episodes (KIPPRA.2012). The first episode ranged from 1963 to early 1980s was illustrated by great economical achievement and big gain in social output. A succeeding episode was from year 1980 to year 2002, was characterized by sluggish or depressing economic growth, escalating fiscal and monetary imbalances and notable losses in the standards of living, rising levels of poverty and life expectancy levels on decline trends. By not taking necessary reforms and the heightened political tones over the reforms was the center of the structural break as established by Legovini (2002). The third episode was from 2003 to 2011 which featured the revival economic growth following change of regime in the year 2002. Between year 1963 and year 1970, the GDP grew at average of 5%, and from 1970 to 1980, economy grew by 8%. Years 1980 to 90s and 1990 to 2000 consequently were characterized by stagnating economic growth rates of 4% and 2% respectively.

Figure 4 GDP trend in Kenya since 1970

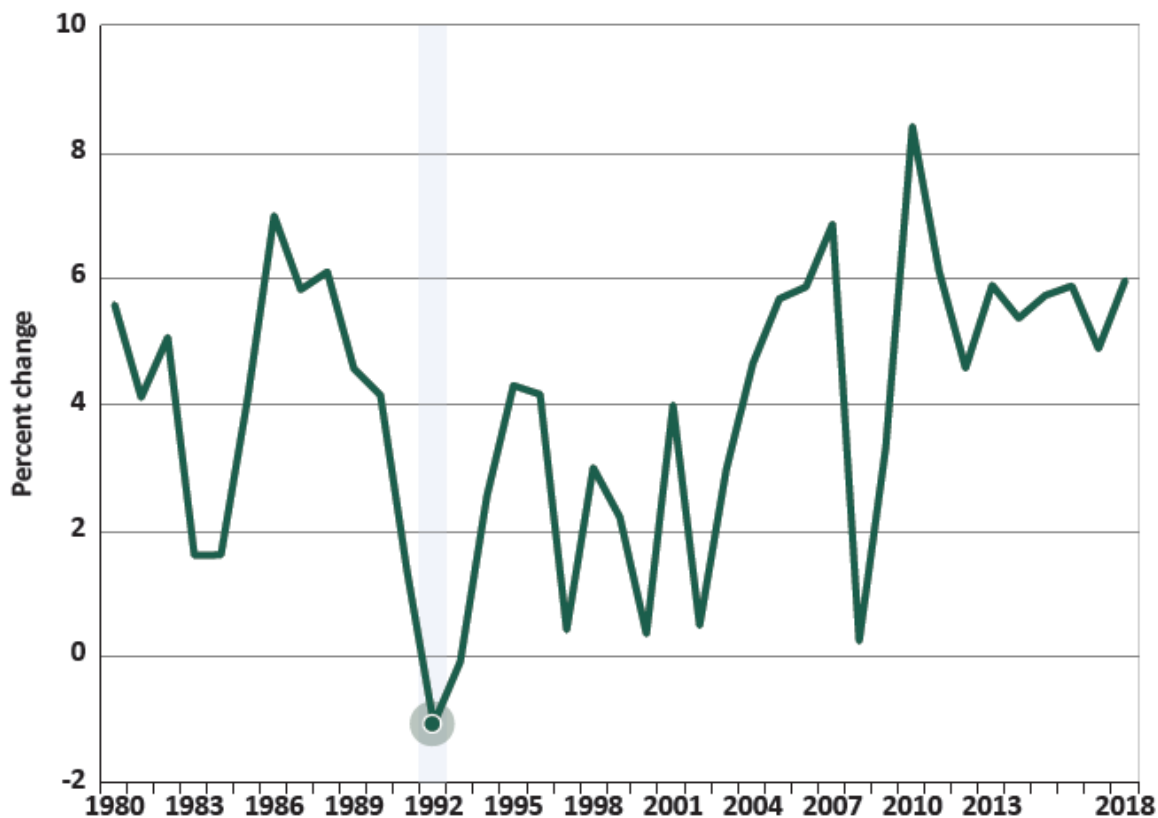


Source.WWW.CEICDATA.COM/World Bank

Reports by Republic of Kenya (2006) established GDP raised at an average of 3% from 1990 to 2005. In the year 2006 Kenya GDP was estimated to be USD 17.39 billion. The nation GDP progression increased up to 2.3% in early 2004 and to almost 6% in 2005 and 2006, matched to a dismal 1.4% documented in 2003 and all through president Moi final term from 1997 to 2002. Real GDP was anticipated to remain growing majorly due to expansion of main sector of economy such as construction, transport, telecommunication industry and expected recovery in the agricultural sector. GDP grew at 4.4 per cent in the period 2006 to 2011 as illustrated by CBK 2011. The Central Bank of Kenya (2008) forecasted GDP growth of between 5% and 6% in 2007, which turned out to be 7.1%. However due to post election violence, the economic growth plummeted to 1.7% in 2008 (Republic of Kenya, 2010). The passive expansion mirrored the negative consequences of post-election violence and soaring crude oil prices in the international market which consequently drowned transport sector and increase cost of fuel and energy resources. This resulted to increase in cost of living during the period.

According to IEA (2015) the post-election violence and global economic crisis impacted very negatively to Kenyan economic growth however since then the economy has been on upward trend despite the challenges of terrorist attacks, heavy investment in infrastructure projects and implementation of devolution. Moreover, as stated by the CBK (2010) output and levels of performance in the agricultural segment fell drastically due to insufficient levels of rainfall in most part of Kenya. Consistently, additional aid should therefore result to increase in economic growth; however, from earlier findings by different researchers indicated that, increasing aid, does not automatically result to boost in economic it can be unpredictable. According to World Bank (2010) aid disbursement to Kenya has greatly risen in recent past, but level of economic growth has remained very little. World Bank established that 52% of the population in Kenya living on an income of less than two dollars a day.

Figure 5 GDP growth of Kenya from 1970 to 2018



Source World Bank 2019

Figure 5 above displays the GDP growth trends from early 1970s to 2018.

The government of Kenya has currently introduced Medium Terms Projections (MTEPs) so as to ensure that Ministries, Department and Agencies (MDAs) align their budgets to ensure that there is enough funding for realization of Key Result Areas (KRAs) identified in respective sectors with emphasis to Government's Big 4 Agenda (Republic of Kenya 2018). The medium-term Budgets are being prepared within the context of a moderate global economic recovery. The government also have introduced zero budgeting and program-based budgeting in order to link projects with available funds. In Kenya growth has remained resilient and broad based in past five years. The strong performance recorded was sustained by tough private and public sector investment and implementation of suitable macroeconomic policies. Studies by CBK (2018) stated that the economy developed at an average of 5.5% per annum in period 2013 to 2017 out shinning the average growth rate of 4.7% in period 2008 to 2012. However, the uncertainties associated with prolonged electioneering period and poor weather condition slowed down

the performance of the Kenya economy in 2017 to an estimated 4.8 percent compared to 5.8 percent in 2016.

According to GoK(2018) the economy was projected to recover to 5.8 percent in 2018 and estimated 7.0 percent over the medium term owing to investment in the critical areas under the Big four Agenda namely: improving the percentage of manufacturing sector to 15 % of the GDP by 2022,ensuring that all citizens of Kenya benefit from food security and enhanced nutrition by year 2022,increasing universal health coverage and construct more than half a million affordable houses by 2022.By implementing the above policies Kenya will achieve a favorable economic growth and development.

1.2 Statement of the problem

The core aim of foreign aid is to enhance economic growth and social welfare in developing nations. Morrissey (2001) pointed out, that there were several means by which foreign aid can enhance economic growth namely: foreign aid usually boost investment in human and physical capital, foreign aid raises the ability to import capital goods and foreign aid is related with transmission of technology thus boosting the productivity of capital and encourages technical changes. McGillivray (2005) established that foreign aid does not only lead to increased economic growth but also reduces poverty level in African Countries.

According to World Bank (2018) many third world countries face high levels of unemployment, high poverty levels, high inflation, low-income levels, poor health care and ever-increasing population. These nations do not have adequate financial muscle to resolve their economic problems efficiently and effectively consequently they rely on foreign aid to complement their local resources as reported by World Bank (2018). Kenya as nation has received large amount of foreign aid to loosen up savings, fiscal constraints and foreign exchange as established by Mwega (2009). Kenyan administration while attempting to achieve rapid growth in the economy has over the ages dedicated to put into operation policies that promote wealth creation as indicated in the Economic Recovery Strategy for Wealth and

Employment Creation (2003-2007) and in economic blue print Vision 2030. This also in line of Sustainable Development Goals set by UN by 2015 and Africa Union Agenda of 2063.

Kenya's situation has not been any different either, given that the country has experienced fairly erratic flows of international aid since 1980s (Mwega, 2009; Oduor and Khainga, 2009). By default, the gap between foreign aid commitments and disbursements has continued to widen. This is regardless of the fact that making foreign aid conventional has been one of the tenets of the Rome declaration in 2003, Paris Declaration in 2005, Accra Agenda for Action in 2008 and Busan Partnership for Development Effectiveness in 2011. Thus, the Government has continually maintained to consider foreign aid in her budget estimate on pledge basis as reported Republic of Kenya (2011) yet commitments are unfortunate predictors of disbursements.

Despite of the Kenyan government's efforts and increased donor help in form of foreign aid, the nation's economic growth and development remains dismal. There is not much development experienced in the country as a result of foreign aid disbursed year in year out. The Kenya Vision 2030 program which the economic blue print, for example, aimed at a 10% economic growth rate by year 2012 in its first medium term plan (2008-2012) however as per Central Bank of Kenya (2013) the yearly growth rate was 4.6% in 2012.

Different researchers have found various contradicting empirical evidence. Very respectable scholars with great command and authority such as McKee and Bells (2013) and Sakyi (2011) concluded that foreign aid has considerable positive impact on the economic growth. Bhavan, (2013) Driffield and Jones (2013) stated that foreign aid was growth attractive in certain macroeconomic policy environment. Liew *et. al* (2012) and Erega *et. al* (2012) concluded that foreign aid was detrimental to growth while others such as Kolawole, (2013) Wako, (2011); found insignificant role of foreign aid on growth. In their study, Burnside and Dollar (2000) concurred with simple idea that raise in level of foreign aid disbursement reinforces economic growth in Least Developed Countries when the environment is favorable. According to World

Bank (2018), Sub-Sahara Africa is the biggest foreign aid beneficiary in the World; however, the area is the least developed with the lowest Human Development Index (HDI) and Gross National Income (GNI) per Capita. The past studies as per the numerous finding above remained inconclusive or contradictory thereby motivating my quest to explore the real effects of foreign aid to the economic growth in Kenya.

1.3 Objectives of the study

1.3.1 General objectives

The general objective of the study was to establish the effects of foreign aid on economic growth in Kenya.

1.3.2 Specific objectives

- i. To establish the effects of emergency aid to economic growth in Kenya.
- ii. To investigate the effects of concessional loans to economic growth in Kenya.
- iii. To find out the effects of grants to economic growth in Kenya.

1.4 Hypothesis

H₀₁ Emergency aid does not have significant relationship to economic growth in Kenya.

H₀₂ Concessional loan does not have significant relationship to economic growth in Kenya.

H₀₃ Grants do not have significant relationship to economic growth in Kenya.

1.5 Significance of the study

The study adds to body of knowledge in relation to the impact of foreign aid on Kenya's development.

The study is also significant to various stakeholders as follows:

1.5.1 Researchers and Academicians.

The study will add to the body of knowledge through suggesting areas of improvement. It will also be helpful to other academicians and practitioners in context of this research finding. The researchers will have a doorway to investigate more on the role of foreign aid on economic growth. The scholars will be able to compare development and political implications in Least Developed Nations. For researchers with

interest on impact of aid on development in third world economies such as Kenya the study will provide invaluable contribution to their quest.

1.5.2 Government

The finding of the study will be of enormous value to the government in matter policy formulation and implementation in matter concerning external finance and its proper utilization in order to realize economic growth.

1.5.3 International community

The findings of this study will act as a point of reference for international donors to evaluate whether there are expected results and also provide areas of improvement. The finding will guide on reward sanction application to deserving beneficiaries.

1.6 Scope of the study

This study sampled 55-year period as from 1963 to 2018 taking Kenya as area of study. It considered secondary annual time series data. The study was in line with general objective which was to investigate the relationship between foreign aid on development in Kenya.

1.7 Chapter Summary

Chapter one has detailed explanation on the purpose of this research which aimed to determine the relationship between foreign aid and economic performance in Kenya. The chapter presented a background of the research, its significance and scope of the research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter looked at the existing literature on foreign aid by developing an overview concept on relationship between foreign and economic growth. The particular areas covered here are Theoretical review, Empirical review, Knowledge gap, Conceptual framework and Operationalization of variables.

2.2 Theoretical Literature Review

Theoretical literature deals with the theories that have been reviewed for the purpose of the study. This area highlights the different theoretical works done by researchers in area of foreign aid and economic growth. Several models and theories have been fronted. The independent variables have been discussed in relation to the dependent variable. The conceptual framework summarizes the dependent and independent variables relationship. Specific theories to be covered includes, Agency theory, Big push theory and Neoclassical growth model.

2.2.1 Agency theory

According to Investopedia agency is any relationship between two parties in which one is the agent who represents the other party known as the principal in some undertaking. Agency theory deems that the interest of the principal and agent are not always in agreement. The agent uses the resources of the principal. This study incorporates ownership and performance which points to principal-agent model. The theory shows that strong domestic ownership can work in both donors and recipient interest since the donor has limited control over the recipient and therefore; the agency problem is to align the objectives of all stakeholders.

Research studies done by Martens *et al.* (2001) used agency theory to form an institutional analysis in which the enticement problems that may occur whereby foreign aid results in ineffective aid expenditure.

The principal in this case is the donor while the agent is the beneficiary. They have relationship which have either moral hazard or adverse selection. According to Martens *et al* (2001) information asymmetry leads to adverse selection. The beneficiary's motivation to follow policies that advance themselves at the cost of the donor cause moral hazard and this affects recipient compliance with the agreement.

2.2.2 Big push theory

This theory was established by Rodan (1943) and later modified by Murphy, Shleifer and Robert Wvishny in 1989. This theory assumes that poverty traps arises from numerous issues such as low production capacity, little savings and high population levels impedes growth and development. To eliminate the poverty traps, a big push in form foreign aid acts as a temporary injection of capital and consequently increasing investment in various sectors of economy. This leads to a take-off into self-sustaining growth. Studies by Collier (2007) identified bad governance traps, internal conflict traps, natural resources trap and landlocked by bad neighbor traps as the four significant traps that affect the bottom billion of the world's population. Rostow (1990) asserted that foreign aid is a precondition for take-off into self-sustaining growth. Sachs *et.al* (2004) asserted that sub Saharan-Africa required temporary big push from developed economies in form of foreign aid as a way of spurring economic growth and diminish poverty. According to Sachs (2005) it is achievable for foreign aid to hasten growth in Africa to meet the MDGs target of reducing the poverty rates by half by 2015 if foreign aid flows are enhanced. The big push theory assumes that once a country attains self-sustaining growth, it will stop receiving aid. Rostow (1960) in his study claimed that aid could be withdrawn after 10-15 years while Sachs (2005) advocated for the discontinuation of aid in 2025. Research study by Easterly (2006) found very little evidence in support of the big push theory. The study concluded that no evidence of poverty traps was established and also never found sufficient data in support of take-offs induced with aid and investment. In addition, Easterly (2006) established that some poor countries such as India, China and Botswana among others had advanced

briskly out of poverty without substantial foreign aid assistance while other countries like Chad and Zaire had minimal growth notwithstanding massive foreign aid assistance channeled to them.

2.2.3 Harrod- Domar Growth model

This is a classical Keynesian model of economic growth. The model was established by Roy Harrod in 1939 and Evsey Domar in 1946. This model uses development economics to illustrate economic growth rate of a nation, economic growth rate in terms of levels of saving and productivity of capital. The Harrod-Domar growth model indicated that saving rate and capital-output ratio jointly determine full capacity growth rate ($g=s/v$) of a closed economy (Harrod, 1939; Domar, 1946).

Chenery and Strout (1966) expanded the Harrod –Domar model into two gap model by bringing in foreign exchange shortage [$g = (s/v) + (a/v)$]. The smaller gap is considered binding and foreign aid is perceived to seal the gap. The dual gap model was used throughout the 1970s and 1980s to authenticate the success of foreign aid on economic growth.

Bacha (1990) improved the two-gap model to three gap model by including the fiscal gap. Foreign aid from developed economies was anticipated to finance the most pressing gaps leading to boost in investment and consequently economic growth, thus initiating an upward path to economic development. According to Weiss Kopf (1972) aid substitute's domestic savings. This gap models are criticized as they assume that foreign aid translates totally into investment which in turn transforms wholly into economic growth which in reality is not practical. In the context of developing countries, Thirlwall (2006) asserted that due to low domestic saving rates and savings convert to investment, there arises an investment gap which can be abridged by foreign direct investment or external debt while externally, due to high rates of imports as compared to low export earnings results to foreign exchange deficit known as the trade gap which may be corrected using foreign aid.

Thirlwall (2006) further established that developing countries often run into foreign-exchange gap which can be fixed by either a growth in the use of idle local resources to earn foreign exchange through FDIs

or increase on efficiency of imports. Study by Hansen and Tarp (2001) established that foreign aid inflow resulted to growth in aggregate savings, investment and therefore affirmative influence on growth. According to Doucouliagos and Paldam (2009) external resource inflow had a positive significant impact on economic growth. Therefore, it is vital to inspect the relationship between foreign, foreign direct investment and economic growth.

Study by Doucouliagos and Jones (2013) used the two-gap theory in the study on foreign aid resulted growth proposition in West Africa. The two-gap theory was applied to decide the relationship that is expected between ODA and economic growth and also to measure ODA and economic growth. Study by White (1992) found that success of foreign aid in sealing this gap will greatly depend on the output of the investment made.

According to Gallagher (1994) owing to fiscal gap, government attempts to arouse private investment may be constrained when government finances for investment and imports are inadequate due to servicing of debts. According to Hjertholm (2002) foreign aid inflows could seal the trade gaps in current situation, but create a quicker rate of export growth in the future for the nation to be independent of foreign inflows.

2.2.4 Neo-classical Growth Model

The growth model considers that continuous enhancement in capital investment boosts the growth rate only in the short term. This is owing to the fact that ratio of capital to labour increases whereby there is excess capital accessible to each employee to utilize but the marginal products of additional units of capital is deemed to decrease. A steady state growth path is realized when the output, capital and labour are developing consistently at the simultaneously. Neo-classic economists undertake that boost in the economy long term patterns of growth rate requires rise in level of labour supply and an improved performance of labour and capital. The neo classical model takes productivity improvements as dependent variable thus productivity is deemed to be independent of capital investment in this case.

According to Helpman (2004) growth however does not slowdown as capital amasses but the rate of growth is dependent on the type of capital a nation invest in. Morrissey (2001) claimed that an important role is played by human capital, but weight is also put on technological changes, particularly spillovers, research and development and other factors linked with increase in knowledge levels. The importance this theory is that it creates the likelihood for boosting long run per capita income growth rates. In addition, aid has long run effects over economic growth if it is in form of technologically advanced capital goods which are far better than domestic technology. The neoclassical growth theory borrows heavily from Solow model that was developed by Robert Solow in 1956. Solow model takes the saving rates, population growth and technological advancement as exogenous. The aggregate output function at time t with labour and capital is illustrated as follows,

$$Y(t) = K(t)^\alpha (A(t)L(t))^{1-\alpha} \dots\dots\dots 2.1$$

Where Y is output, K is capital, L is labour and A is a measure of technology which is also described as Total Factor Productivity as explained by Mankiw, Romer and Weil (1992). According to Sala-i- Martin (1994), it means that given the similar amount capital and labour, a nation can generate more output than another country if its economy is less vague and the government is more efficiently. L and A are deemed to grow exogenously at rate n and g respectively. This illustrated as follows:

$$L(t) = L(O)e^{nt} \dots\dots\dots 2.2$$

$$A(t) = A(O)e^{gt} \dots\dots\dots 2.3$$

Accordingly, effective units of labour $A(t)L(t)$, grows at rate of (n+g). The model deems that total savings are invested. The increase in output is only possible with increase in capital over the period of time. K is described as stock of capital per effective unit of labour, $y = Y/AL$, then per capita change in capital will be defined as follows,

$$\dot{k}(t) = sy(t) - (\delta + n + g)k(t) \dots\dots\dots 2.4$$

$$\dot{k}(t) = sk(t)^\alpha - (\delta + n + g)k(t) \dots\dots\dots 2.5$$

Where, s is fraction that is saved form output and δ is exogenous constant rate of depreciation for capital. The model assumes diminishing marginal returns to inputs and in aggregate constant returns to scale for the output. The assumption of the diminishing marginal returns to capital, gave rise to the debate of convergence.

According to Barro, (1991) convergence asserts that given the same structural considerations for favorites and technology, poor nations tend to grow quicker than rich nations. Moreover, diminishing marginal returns to capital implies that in long term every country tends to reach at steady state according to their saving and population growth rates, independent of their initial conditions and that only sustainable steady state growth rate is zero. The assumption of diminishing marginal returns to capital means that k will converge to steady state value at k^* . Steady state is a state where all variables grow at a constant with a possibility of zero rates. Thus, steady state growth rate is constant by definition (Sala-i-Martin, 1994). Thus $SK^{*\alpha} = (\delta + n + g) k^*$. At steady state equation (2.4) will be as follows,

$$k^* = \{s/(\delta + n + g)\}^{1/(1-\alpha)} \dots\dots\dots 2.6$$

The steady state capital to labour ratio is positively associated to saving rate and negative to the growth of population. The assumption of shrinking marginal returns to capital of neo-classical model implies that the only sustainable steady state growth rate is zero. A question arises, if the sustainable steady state growth rate is zero then how would neo-classical theorist explain the decades long positive growth rates? The answer by neo classical economists is that technology used by these countries improved over -time. They allowed the term (A) to grow at an exogenously constant rate $(\dot{A}/A = g)$. It implies that steady state growth rate, capital per capita in neoclassical model with exogenous productivity growth all are equal to g (Sala-i-Martin, 1994).

2.3 Empirical Literature

This segment reviews past studies correlated to the research topic. It shows exploration of literature on foreign aid and its effect on the economic growth in Kenya.

A study by Mitra (2013) inspected the long-term relationship between foreign aid and economic growth of Cambodia. The structural VECM estimates from year 1971 to 2009 showed that foreign aid spurs economic growth in Cambodia if the aid is directed towards extension of the industrial sector. Research by Bruckner (2013) in a study of 47 least developed nations over the period 1960 to 2000 pointed out that foreign aid positively affects real per capita GDP growth, only after adjusting for the endogeneity problem caused by reverse causality in the growth regression. Bhavan, (2013) applied both two stage Least Square Method and instrumental Generalized Method of Moment (GMM) in his analysis and established that a conducive policy environment is vital condition for aid success and aid transfers to Sri Lanka. Studies by Trinh (2014) investigated the relationship between foreign aid and economic growth in Vietnam. The period of study was from 1991 to 2012. Applying Autoregressive Distributed Lagged (ARDL) approach, the study conclude that foreign aid had a significant positive impact in promoting economic growth in Vietnam.

Research studies by McKee and Bells (2013) using a sample of thirty Sub-Sahara Africa nations, tested the joint effect of foreign aid and technical cooperation grants (TCG) on GDP per capita. The conclusion of their analysis asserted that growth increases extensively with foreign aid, local investment human capital and international trade for a period of thirty years. Even if TCG seems to contribute to growth, they concluded that its effect is not significant statistically. In their study they also established statistically significant negative joint effects of foreign aid and TCG on economic growth. They further performed an analysis on the possibility of diminishing returns to aid, but their results lacked evidence of diminishing returns to aid. They came to a conclusion that foreign aid regardless of the source or type should be focused to areas where it will make the maximum impression like education and public health programs, trade, and job training.

Research study by Loxley and Sackey (2008) examined the success of aid and sources of growth finance in Africa. Using a sample of 40 African countries over 28-year period, they assessed fixed effect growth

models and concluded that aid effectively inspires growth and that aid worker's transfers, debt service resources and domestic savings are the key supply of development finances. Salisu and Ogwumike (2010) did a study using a panel regression model estimated using both OLS and 2SLS and covering 20 SSA countries, concluded that comprehensive macroeconomic environment was vital not only for efficient contribution of foreign aid to viable growth but similarly for promoting growth in SSA. They suggested that SSA governments should follow macroeconomic policies that reflect productive budgetary balance, low inflation rate and competitive foreign exchange rate.

Sakyi (2011) using ARDL constraints test approach to co integration, established that foreign aid and trade openness largely contributed to growth both in the short term and long term in the post-liberation Ghana. Study by Karras (2006) examined the correlation between foreign aid and economic growth in per capita GDP using annual data 1960 to 1997 for sample of 71 aid receiving nations. The results revealed that the impact of foreign aid on economic growth was positive and significant. Research study by Quartey (2015) focused on attractive way of making financial aid success in Ghana. The conclusion was majorly on multi-donor budgetary support (MDBS) could be fruitful but only if the Ghana government and partners prepares well and synchronize their efforts. Using three stage least squares panel system estimation, Driffield and Jones (2013) established that foreign direct investment, foreign aid and immigrants' remittances had a positive and significant impact on the growth in developing countries when institutions are considered. Conferring to Erega, Sede and Ibidapo (2012) the conceit of foreign aid in promoting growth in Africa is as a result of diverting aid into fruitless consumption and into facilitating corruption.

Erega *et al.* (2012) investigated whether uncertainty predisposed the association between aid, investment and economic growth in ten ECOWAS countries applying pooled panel regression method and established that foreign aid hurt growth with or without uncertainty although the uncertainty effect was not statistically significant. They decided that donor agencies and recipients should form systems for monitoring and audit so as to boost aid success in the region. They recommended the use of foreign aid in addressing other

factors that are averse to economic growth in the region rather than as a way for attaining economic growth. Research study by Elbadawi, Ibrahim and Mwega (1999) on saving behavior in Sub Saharan Africa nations using cross sectional data, found out that foreign aid results a decrease in both savings and investment. According to Collier and Delh (2001) in a study of the relationship between negative shocks and economic growth displayed a significant and negative relationship between negative shocks and economic growth. They claimed that the negative impacts of shocks on growth can be lessened by offsetting escalations in aid. As a result, they recommended that targeting aid towards negative shocks experiencing nations could be more operational than towards good policy nations. Applying a 2.5% cut off in their sample size of 113 nations, they established 179 positive shocks and 99 negative shocks periods.

Study by Ram (2004) focused on the subject of poverty and economic growth from the perspective beneficiary nations policies as being the main role of success of foreign aid. He disagreed with common acknowledge view that re-channeling aid towards nations with good regulations results to better economic growth and poverty elimination. Ram wrap up and said that there is no sufficient proof to sustain the notion that aid directed to a nation with better policies is more efficient. Studies by Liew *et al* (2012) which focus on five East African Countries (EAC) for a period of 25 years from 1985 to 2010 concluded that foreign aid impacts negatively on economic growth in East Africa.

Study by Rajan and Subramanian (2008) presented findings on various aspects of relationship between foreign aid and economic growth in one place. Study concluded that there was little robust evidence of positive or negative link between foreign aid and economic growth. No evidence was found to recommend that certain form of aid does better than others or foreign aid works well in government with good governance or not. Research by Amanja and Morrissey (2005) applied country precise research to inspect relationship between foreign aid, trade, investment and economic growth in Kenya. They claimed that cross country studies which form the stamina of the literature on the determinant of economic growth in

developing nations encounter numerous challenges. The key purpose of their study was to ascertain facets of economic growth in Kenya specifically the role played by foreign aid. They employed a multivariate time series estimation method investigate some of the elements of economic growth in a single small open economy. VAR Modeling was the Centre stage of their methodology. They established that foreign aid in structure of net external loans is established to have a significant negative effect on the long run growth. Study by Ojiambo (2014) represented from the Samuelson model and used time series data for the period 1966-2010. The study established that foreign aid had positive effect on economic growth and public investment in Kenya. Research by Veledinah (2014) examined the effects of ODA on economic growth in Kenya. The study applied VECM estimation technique and time series data from year 1970 to 2012. Solow growth model was used to establish the link between theoretical and empirical anticipations. The study concluded that there was a long run causality between ODA, inflation, trade openness, capital formation, private external resource flow and GDP growth per capita. While ODA contributes to economic growth in short run its effects were not statistically significant. Study by Uneze (2011) examined whether foreign aid had any impact on private investment in West Africa. The study majorly concentrated on finding out whether multilateral aid and bilateral aid in any way affected private investment differently. The finding was that multilateral aid greatly affected private investment positively however it did not affect bilateral aid.

2.3.1 Emergency Aid and Economic growth

Emergency aid is also known as humanitarian aid. According to Riddell (2007) humanitarian aid is described depending on its use which is to save live lessen anguish and permit those in dire need to keep their human dignity throughout and after math of natural disaster and man-made crisis. Emergency aid has been victorious in many situations in producing concrete results such as giving relief to the hungry, saving lives, giving water, sanitation and shelter to whose homes have been wrecked. Riddle (2007)

concluded that the continued domestic violence in war prone areas diminish funds to meet development purposes as more resources are focused to meet humanitarian needs.

According to OECD food aid contains programme food and humanitarian food aid. Programme food aid relieves foreign exchange constraints to the import of needed complementary inputs or also by providing fiscal resources through counterpart's finances created by domestic sale of programme food aid. The funds saved from supply of emergency aid can be invested by recipient nation in improvement of rural infrastructure, agricultural research and extension services. Nevertheless, according to Barret (1999) programmed food aid can result to Dutch disease effect on local food producers therefore hurting in a greater way the food sector competitiveness in the universal market. According to Investopedia Dutch disease is a concept that describes an economic scenario where the rapid development of one sector of the economy mostly natural resources and decline of the other sector lead to a significant appreciation of domestic currency. This however results to overall decline of a country's economic growth.

2.3.2 Concessional Loan and Economic Growth.

According to Riddell (2007) concessional loans are loan issued at lower rates than market loans. This also supported by Glossary of Statistical Terms (2003) whereby a loan must have at least 25% grant element to qualify to be a concessional loan in concurrence to OECD (2013). According to Were, (2011) foreign debts have increased over years thus also increasing debt load index. Were, further acknowledged that Kenya foreign debt was predominantly official, greater percentages coming from multilateral sources. The key sources of external debt financing in Kenya are multilateral creditors. This includes Africa Development Bank (ADB), Africa Development Fund (ADF), and International Development Association (IDA) while European Economic Community (EEC) /European Investment Bank (EIB). International Development Association (IDA) is single greatest source external resource. The key bilateral creditors are Japan, China, France and Germany. In current years China has become the

largest bilateral donor and a trade partner to Kenya. According to the National Treasury (2020), the total public in Kenya and publicly guaranteed debt amplified in nominal terms, to Kshs 6.7 trillion, comparable to 65.6% of GDP as at end of June 2020. Public Debt was made up of 52.5 % foreign debt and 47.5% domestic debt. External debt is mostly tilted towards concessional terms though commercial loans in the portfolio including Eurobonds have affected the cost and risk profile including the average maturity period, grace period and average interest rate as new external loan commitments were 15 years, 6 years and 4 years, respectively. Kenya's has an up to date debt repayment track record with no arrears being reported. The public debt remained within the debt sustainability levels. However, increased public expenditure has led to high levels of borrowing leading to fast accumulation of public debt over the recent years. The National treasury asserted that going forward, it is expected that in the absence of huge infrastructural projects, growth in public expenditure will be moderated to ensure that public debt accumulation is consistent with the levels of growth of GDP so as to safeguard public debt sustainability and hereby improve Kenya's credit rating thereby reducing cost of debt. The debt appetite needs to be controlled to avoid purging the Country to debt trap.

Studies by Ali and Mustafa (2011) focused on the long run and short run impact of external debt on the economic growth of Pakistan. The period of study was from 1970 to 2010 which concluded that higher debts discourages economic growth. Research by Samer (2013) on impact of external debt on economic growth in Jordan concluded that external debt was a vital source of external funding for least developed nations. The results displayed that there was positive and significant relationship between external debt and economic growth. Investigation were conducted by Akomolafe *et.al.* (2015) on the effects of public debt burden on economic growth in Bangladesh and Nigeria correspondingly. The research divided debts into domestic debts and external debts with their effects to the economy of the nations involved. VECM was applied to check the relationship of variables which established that there was significant positive relationship between total public debt and investment and also between public debts and Government

reserves. The experimental results of the study in addition found that local debts have a negative relationship with the domestic investment in both short term and long term. Study by Pattillo *at al.* (2004) found that there is negative nonlinear relationship between total external debt and economic growth in Least Developed Countries. At low levels the external debt affects economic growth positive but to the contrary at high debt levels. The study further explained that ways through which external debts affects economic growth are total factor productivity and capital accumulation. According to Ayres and Warr (2010) loans can have severe impact to an economy if not well utilized because its servicing takes a big chunk of government revenues thereby resulting to persistent deficit. This in essence means that the government has fewer resources to spend on its development agenda. Karazijiene and Saboniene (2009) stated that public borrowing is unavoidable. It is a method of rejuvenation economic growth by injection funds from foreign investors into well distributing assets balancing those with more than they require supporting those who lack asset for developing economic initiative. Study by Were (2001) investigated the impact of external Debt on Economic Growth in Kenya. The study established that dependence on external debt is not exactly harmful to economic growth nor does high external debts automatically result to decline in economic growth. The study further explained that during recession, loans can be extremely important measure to avoid high taxes that would thus send the economy into deeper depression. In addition, during calamities, disasters or act of terrorism, loans can be of great help in shoring up revenue without affecting the rest of the economy.

Research study by Finckle and Greiner (2015) investigated the correlation between public debt and economic growth in emerging markets. The researcher concentrated on economies of Brazil, India, Turkey, Malaysia, South Africa, Thailand and Mexico for period covering from 1980 to 2012. The study concluded that there was a significant positive correlation between public debt and economic growth. Study by Barik (2013) focused on the relationship between Government debt and economic growth in

India. The study used annual data series from 1981 to 2011 applying regression analysis of the variables. The study showed that there was no significant relationship between public debt and economic growth. Study by Muinga (2014) investigated the external debts, public investment and economic growth in low income nations. The results demonstrated that soaring levels of debts dampens economic growth in developing countries as external debts decreases growth only after attaining a threshold level of about 50% GDP. Muinga also established that the external debts have bad impact on economic growth through its impact on public investment while on the side public debt does not seem to weaken public investment. Debt servicing has a nonlinear correlation as ratio of debt service to GDP rises. Therefore, Muinga concluded that a decline in debt service of approximately 6% of GDP would therefore increase public investment by a range of 0.75% to 1%

2.3.3 Grants and Economic growth

According to Kosack and Tobin (2006) grants contribute to economic growth and buildup of necessary human capital for sustained development in nations with low levels of development. According to Ouattara (2005) the effects of various forms of aid on saving in aid receiving nations are that project aid inflows and food aid not including emergency aid are related to reduction in domestic saving. Study by Makori, Kagiri and Ombui (2015) investigated the effects of external capital inflow such as grant on the economic growth in Kenya from 1970 to 2013. They used Ordinary Least Square Method to check the relationship between variables. ADF was applied to test the stationarity of time series data. The study finding concluded that there exists an insignificant relationship between foreign direct investment and GDP. The study resolved that FDI Grants and migrant remittance were major aspects of economic growth of any nation.

White (1998) recognized three main types of aid include project aid, programme aid and technical assistance. According to Riddell (2007) project aid is controlled by resources directed to intervention in areas such as education, health and rural development. The rural development includes agricultural,

transport, housing water supply and sanitation. Many grants are aimed at achieving precise productivity by giving resources, skills and technical assistance which are required by beneficiary nation.

Riddell (2007) illustrated that programme grant is classified into two ways namely: the balance of payment (BOP) support and the budget support. In the budget support, grant is given to enhance aggregate revenue and boost overall spending. Grant channeled to the ministries of finance are referred to General Budget Support (GBS) while the granted directed to a particular sector of economy are termed as Sector Budget Support (SBS). In GBS donor give resources for the execution of development projects and also poverty eradicating ways. These strategies consider greatly capacity of the recipient country to ensure that grant is used effectively.

Study by Bearce and Tirone (2008) investigated the relationship between foreign aid and economic growth. They established that grant had positive significant impact through financing investment but also could have a negative effect on aggregate productivity. According to Nelson (1956) flow of funds from abroad resulted to increase in income and capital whereby this could assist to free economy from low level equilibrium trap. Devaranjan, Dollar and Halmegren (2001) did a study of effect of conditional grant in Africa. They established that impact of conditional grant varied. Some countries such as Uganda and Ghana recorded successes and economy grew rapidly and reduced poverty levels

2.3.4 Foreign Aid and Economic Growth

Niyonkuru, (2016), asserted that foreign aid gives assistance to nation's development. These aids include but not limited to social and economic infrastructure. According to Addison and Tarp, (2015) social infrastructure includes supply of water, education and sanitation with the plan to advance human development and therefore add to long run economic growth. According to Morrissey, (2001) there are different ways by which foreign aid affects economic growth. Foreign aid enhances investment in physical and human capital. Aid raises the ability to import capital goods and technology. Aid is also related to technology transfers that boost the productivity of capital and advances endogenous technical change.

According to United Nations (2015) foreign aid has impacted positively in many developing countries, some of the examples are: Foreign aid has greatly resulted to reduction of acute poverty. The global acute poverty level fell from 1,926 million in year 1990 to 836 million in year 2015. The use of foreign aid was thriving by helping 91% of children to enroll in primary education in developing countries. The levels of literacy rose from 83% in 1990 to 91% in 2015. The discrepancies between female and male in education admission has decreased greatly. Reports from United Nations (2015) established that foreign aid improved global health concerns such as HIV/AIDS and Malaria. The calamity of children dying before reaching the age of five years had been cut by half and this saves 17000 children per day in developing countries. Also, foreign aid has reduced mortality from 90 to 43 deaths per 1000 live births from 1990 to 2015. According to UN (2016) foreign aid has guaranteed environmental sustainability where access to piped drinking water was increased 2.3 billion people in 1990 to 4.2 billion people in 2015.

Gates and Gates (2014) supported the continuation of provision of foreign aid as it saves lives of the poor. According to Sachs (2006) different type of foreign aid generate development for a country. Sachs also claimed that developing economies requires six type of capital in form of foreign aid in order to grow. This capital includes physical capital, human capital, infrastructure, natural capital, institutional capital and knowledge capital. In his study Sachs established that foreign aid help developing country move towards development by creating human capital accumulation, growth in household income and also economic growth. Most common aid goes to government budget to finance public investment. Developing nations requires a big push in form of foreign aid from developed nations in order to come out of poverty traps. Study by Gomanee, Girma and Morrissey (2005) focused on the channels through which aid impacts growth. The study used a sample of 25 Sub- Saharan countries. The study established that there was failure by past studies to pay attention to importance of transmission mechanism in determining the influence of foreign aid inflows on economic growth rates. The study stated that aid was intended to affect economic growth on investment. It was observed that if one adopted the approach of omitting investment, the

regression was mis specified and estimated coefficient on foreign aid was biased. However, if one included aid and investment, there was double counting as aid was used as investment and the coefficient was biased.

According to Easterly (2006) between 1970 and 1994 hundreds of billions of dollars in term of aid was used on public investment yet growth rates did not expand as per big push thus contradicting study by Sachs. Carlin and Soskice (2006) claimed that investment in real capital creates positive impact on a nation's economic growth. According to World Bank (1999) states that financial aid has various good outputs such as poverty elimination, quicker growth rates and improved social indicators in nations with prudent economic management. World Bank also established that aid to nations with good policies result to good outcome such as 1% aid in GDP will lead to 1% decrease in poverty levels and infant mortality. According to Burnside and Dollar (2000) foreign aid had a positive impact on growth of least developed countries with sound monetary policies. According to Abuzeid (2009) developing countries need to institute sound policy and good economic management more than foreign aid. He further explained that foreign aid may undermine governance consequently any assistance should be channeled towards improving the quality of governance in a country before any economic development can be undertaken in developing countries which lacks strong institutions. Study by Ouattara (2006) evaluated the impact of aid flows on key fiscal aggregates in Senegal. The study covered period from 1970 to 2000 where the study concentrated on interactions between aid and debt. The researcher found three main findings. One, a very large percentage of aid flows estimated at 41% were used to fund Senegal debts and approximate 20% of nation resources were channeled towards debt servicing. Secondly, effects of aid flows on domestic spending was statistically insignificant and finally the debt servicing has significant negative impact on domestic spending. The study concluded that debt reduction could be used a policy tool apart from being addition aid.

2.4 Knowledge Gap

Different researchers have carried out various studies concerning foreign aid. In theory increase in foreign aid should have a corresponding increase in economic growth. However, empirical review demonstrates lack of common agreement among researchers as to effectiveness of foreign aid in economic growth. The researchers have different and contradicting findings on the subject of study. These studies have some limitation and shortcoming which were not adequately addressed. Studies by Nkoro and Uko (2013) on nature of causality between foreign aid, capital inflow and debt on economic growth in Nigeria concluded that there was a positive significant impact of ODA on real GDP despite poor policies and governance as established by Olubiyi (2014) These findings contradicts results of research conducted by Burnside and Dollar (2000) which concluded that ODA had positive impact on economic growth of developing countries with good fiscal. Monetary and trade policies, though no significant impact to nations with poor policies and governance.

Study by Herzer and Morrissey (2011) investigated the long run aid effectiveness using 59 Least Developed Countries from 1971-2003. The study deployed two step methodology with first step involving heterogeneous panel and specific country cointegration techniques. The second step involved a generic to specific variable selection approach. The study established that at first, foreign aid effectiveness coefficient was negative but smaller than positive impact of investment. The study also found that the dependence on cross country panel growth regression endures various disadvantages which include letdown to account for cross country heterogeneity in foreign aid effects, also using economic growth as dependent variable but levels as independent variables compounded by problem of feeble instruments. This situation has been complicated by facts that some variables have been found to be significant by some studies which has also turned to be insignificant by others as found by Levine and Renelt (1992) and Sala-i- Martin *et.al* (2003).

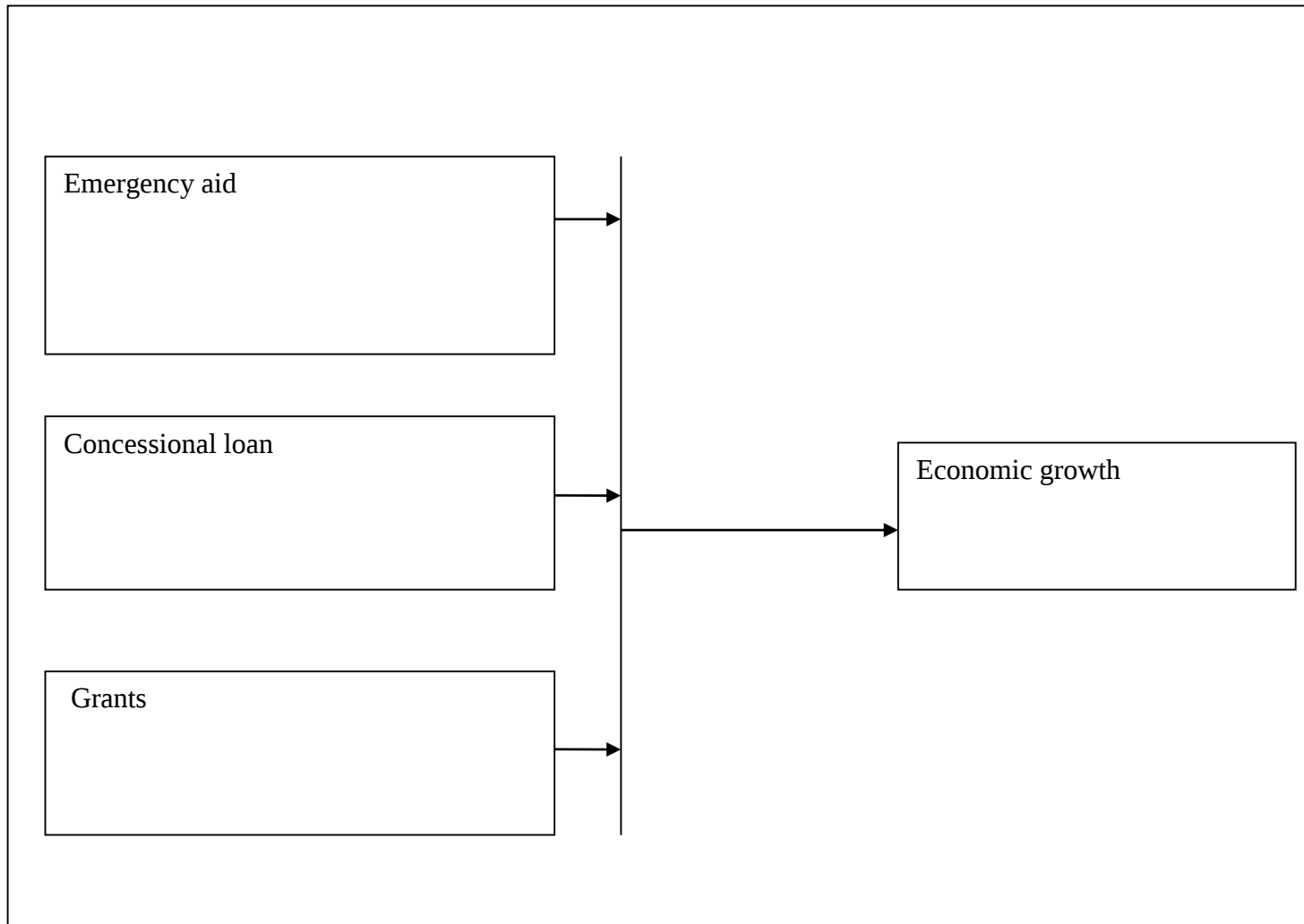
The drawback of cross-country approach is that it does not give necessary insight to a particular country as it is generalized across various countries. This makes it difficult to apply the result to a specific country and thus difficult to formulate a policy for particular country from findings as concluded by Harrison (1996), Durlauf (2002) and Hoeffler (2002) Country-specific studies on the aid-growth relationship have exhibited some gaps.

The gaps have been due to the shorter period of study, exclusion of variables and the estimation techniques used. The research studies reviewed shows discrepancy in terms of the result with some presenting a negative relationship between foreign aid and growth, while others concluding a positive relationship. These studies have assumed that the aid flows have been predictable, a condition which is not the case. This study consequently, seeks to address the knowledge gap that exists through the investigation of impact of foreign aid and economic growth in Kenya.

2.5 Conceptual Framework

According to Mugenda and Mugenda (2003) conceptual framework entails creating an idea about the relationship of variables in the study by displaying relationship graphically or diagrammatically. The conceptual framework strives to investigate the relationship between foreign aid and economic growth in Kenya.

Figure 6 Schematic diagram showing variable relationship



Independent Variables

Dependent Variable

Source Author (2020)

2.6 Operationalization of variables

Operationalization refers to the measurement of variables.

Table 1 Operationalization of variables

Variables Type / Variable	Specific Measure	Source
Independent Variable Emergency Aid	Total Emergency Aid received in Kenya in USD per year	Riddell (2007)
Independent variable Concessional Loans	Total Concessional Loan advanced to Kenya in USD per year	Were (2011)
Independent variable Grants	Total Grant received in Kenya in USD per year	Riddell (2007)
Dependent variable Economic Growth	Growth of GDP in USD in Kenya per year	Amanja and Morrissey (2005)

Source Author (2020)

2.7 Chapter Summary

The chapter has detailed discussion on the theoretical and empirical evidence of the relationship between foreign aid and economic performance. Numerous empirical studies point out diverse conclusion regarding the subject. There has been minimal evidence on the relationship between foreign aid indicators on the economic growth and this study aims at filling the knowledge gap. Chapter three explains the research methodology employed in the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter elucidated the methodology the researcher applied when collecting data, the research design used, population and sampling frame, instrumentation and data analysis procedures. According to Mouton (2001) research methodology concentrates on the research process, tools and procedures to be applied.

3.2 Research design

Welman *et.al.* (2009) stated that research design is the way to select the respondent of the study and means by which data is collected. Burns and Grove (2003) described research design as outline for performing a study with supreme regulation over factors that might impede the validity of the findings. Gall *et.al.* (2006) viewed research design as a comprehensive outline on how research will be undertaken. It stipulated that the techniques and processes used to collect and analyze the data. Zikmund *et al* (2010) elaborated that research determines the techniques and procedure, forms of measurement to be applied, sampling, data collection and analysis to be used for the planned study.

The descriptive research design was used in the study. Grove (2004) stated that descriptive research design provides an accurate account of features of a specific individual, event of group in real life situations. According to Flick (2009) descriptive research design is commonly used in the fields of finance and economics since it is useful in policy evaluation. Mugenda and Mugenda (2003) stated that, descriptive research design allows researchers to gather data from predetermined population to ascertain its status in accordance to one or more variables. Descriptive study is the most suitable because it is a design that is concerned with the answering of questions; who, how, which, when or how much as claimed by Cooper and Schindler (2003). The researcher used secondary data.

3.3 Population and Sampling Frame

Cooper and Schindler (2003) described population as the total assortment of components about which the researcher wants to make extrapolations. Ngechu (2004) stated that a population is a group of people, services, components, and events, group of things or household that is being examined. Saunders *et.al.* (2003) defines population as a full set of cases from which a sample is taken.

The study used a sample a 55-year period from 1963 to 2018. The population of concern in the study was the Republic of Kenya.

3.4 Data collection instruments

According to Polit and Hungler (1999) data is described as information obtained during the course of a study. The data of interest is related to economic growth, foreign aid, concessional loan and grants. The study used secondary data obtained from Central Bank of Kenya, Kenya National Bureau of Statistics (KNBS) and World Bank. Data collection sheet was attached as an Appendix 1.

3.5 Data analysis

This section describes specific techniques in data analysis. Bogdan and Biklen (2003) described data analysis as working on the data in order to organize them, break them into manageable units, code them, blending and looking for patterns to make data has meaning. The process of data analysis begins with categorization and organizing data in patterns that help to generate meaning from the data. Descriptive indicators were applied to summarize, elaborate and present data quantitatively by use of tables, figures and charts. Descriptive indicators such as mean and standard deviation were applied to delineate variable features. Computer application packages such as STATA and MS Excel were applied in data analysis. The results were displayed using tables, charts and percentages. Econometrics usually involves application of statistical models on economic theories in order to analyze and test economic relationship. Econometrics modelling was used to establish the relationship between variables. This model analysis

correlation or association between independent and dependent variables with a clear aim of determining causality. The models cannot provide a perfect match for cause and effect relationship for the variables but usually offers an estimation which aid in understanding and forecasting changes in the economy and policy makers in the government can deploy economic models to understand the implications of foreign aid on economic growth in Kenya.

3.6 Preliminary Tests

3.6.1 Tests for Stationarity

Non stationarity is major problem in investigation of time series data. Time series data is deemed to have stationarity if its mean, variance and covariance do not vary overtime as stated by Gujarati (2003). Data is considered to be stationary if mean and variance are constant over time(t) and the measure of covariance between two time period t and $t+n$, otherwise the data is said to be non-stationary. If there exist non stationarity it automatically leads to spurious regression, attaining a high Coefficient of Determination (R^2) even though variables may be unrelated as established by Dimitrova (2005). Regression equations with non-stationary variable have various limitations such as t-ratio and R -square being over-estimated by great extent thus becoming unreliable. To cure such problem, we difference the data. According to Omoniyi and Olawale (2015) once stationarity of a series has been established, test for existence of a unit root is conducted. This was done using the Augmented Dicky Fuller (ADF) test. The significance level was 0.05. If shock was introduced to a non-stationary variable, it continues for a very long period. However, if shock of similar nature is introduced to a stationary variable, it eventually fades away.

H_0 There is a unit root thus non -stationarity

Reject null hypothesis if test statistics is larger than the critical value.

3.6.2 Lag length selection procedure

If the values in the past are affecting current values, then more lags shall be needed. Before conducting Johansen test for Cointegration, optimal lag length should be specified. Lutkepohl (2005) stated that lag length misspecification for time series model results to auto-correlated errors. According to Ivanov *et. al* (2005) to decide how many lags to use, researcher should use Information Criteria to determine the optimum lag length which includes Bayesian Schwarz Criteria (BSIC), Akaike Information Criteria (AIC) and Hannan Quin Information Criteria (HQIC). The study employed sequential modified likelihood ratio (LR) test statistics, the Final Prediction Error (FPE) criterion, the Akaike Information Criterion (AIC), the Schwarz Information Criterion (SC) and Human-Quinn Information Criterion. This selection criteria were deployed in other studies including Enders (2010), Athapatu and Jayasinghe (2010). Where inconsistency was detected a correlogram of residuals was used. Simiyu (2015) established that there is no specific rule of thumb on the criterion to be used for optimal lag length selection among the method listed. The optimal lag for the time series model is selected based on the lowest value of information criteria.

3.6.3 Co-integration Test

Co-integration and long-term relationship are established using the Johansen Co-integration test. According to Gujarat (2003) two variables are said to be co-integrated if the variables have a long-term relationship among them. This test was done to determine the long run relationship among variables. According to Johansen (1988) Johansen procedures is used to establish whether there exists a co-integrating vector among the variables. This test provides the number of co-integrated equations and their significant lag length. Johansen's co-integration focuses on the choice of lag length. After performing Johansen Co-integration test co-integration was established thus Vector Error Correction Model was fitted. This implied that the variables had long run equilibrium. If no co-integration was established Vector

Auto Regressive Model (VAR) would have been applied consequently implying that variables would have short run equilibrium.

Co -integration model

$$\Delta GDP_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta GDP_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta E_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta C_{t-1} + \sum_{i=1}^n \alpha_{4i} \Delta G_{t-1} + \alpha_5 \Delta GDP_{t-1} \\ + \alpha_6 \Delta E_{t-1} + \alpha_7 \Delta C_{t-1} + \alpha_8 \Delta G_{t-1} + \mu_{1t} \dots \dots \dots$$

$$\Delta GDP_t = \theta_0 + \sum_{i=1}^n \theta_{1i} \Delta GDP_{t-1} + \sum_{i=1}^n \theta_{2i} \Delta E_{t-1} + \sum_{i=1}^n \theta_{3i} \Delta C_{t-1} + \sum_{i=1}^n \theta_{4i} \Delta G_{t-1} + \theta_5 \Delta MC_{t-1} \\ + \theta_6 \Delta E_{t-1} + \theta_7 \Delta C_{t-1} + \theta_8 \Delta G_{t-1} + \mu_{2t} \dots \dots \dots$$

$$\Delta C_t = \beta_0 + \sum_{i=1}^n \beta_{1i} \Delta GDP_{t-1} + \sum_{i=1}^n \beta_{2i} \Delta E_{t-1} + \sum_{i=1}^n \beta_{3i} \Delta C_{t-1} + \sum_{i=1}^n \beta_{4i} \Delta G_{t-1} + \beta_5 \Delta GDP_{t-1} \\ + \beta_6 \Delta E_{t-1} + \beta_7 \Delta C_{t-1} + \beta_8 \Delta G_{t-1} + \mu_{3t} \dots \dots \dots$$

$$\Delta G_t = \delta_0 + \sum_{i=1}^n \delta_{1i} \Delta GDP_{t-1} + \sum_{i=1}^n \delta_{2i} \Delta E_{t-1} + \sum_{i=1}^n \delta_{3i} \Delta C_{t-1} + \sum_{i=1}^n \delta_{4i} \Delta G_{t-1} + \delta_5 \Delta GDP_{t-1} \\ + \delta_6 \Delta E_{t-1} + \delta_7 \Delta C_{t-1} + \delta_8 \Delta G_{t-1} + \mu_{4t} \dots \dots \dots$$

Where

GDP= Gross domestic product

E= Emergency aid

C= Concessional loans

G= Grants

ε_t =Error correction term.

$\alpha_0, \beta_0, \delta_0$ and θ_0 Represent constants.

$\alpha_1 - \alpha_5, \beta_1 - \beta_5, \theta_1 - \theta_5$ and $\delta_1 - \delta_5$ Represents coefficients.

Δ Represents the differential operator in the equations.

n= lag length.

t = time period.

μ_{it} = mutually uncorrelated white noise residuals

3.6.4 Vector Error Correction Model (VECM)

On testing for co-integration, a vector error correction model was fitted since the data set was co-integrated. The model is as follows

$$\Delta GDP_t = \delta_{10} + \delta_{11}\Delta GDP_{t-1} + \beta_{11}\Delta E_{t-1} + \alpha_{11}\Delta C_{t-1} + \theta_{11}\Delta G_{t-1} + \varepsilon_{1t} \dots \dots \dots$$

$$\Delta E_t = \delta_{20} + \beta_{21}\Delta E_{t-1} + \delta_{21}\Delta GDP_{t-1} + \alpha_{21}\Delta C_{t-1} + \theta_{21}\Delta G_{t-1} + \varepsilon_{2t} \dots \dots \dots$$

$$\Delta C_t = \delta_{30} + \theta_{31} + \alpha_{31}\Delta C_{t-1} + \delta_{31}\Delta GDP_{t-1} + \beta_{31}\Delta E_{t-1} + \Delta G_{t-1} + \varepsilon_{3t} \dots \dots \dots$$

.

$$\Delta G_t = \delta_{40} + \theta_{41}\Delta G_{t-1} + \delta_{41}\Delta GDP_{t-1} + \beta_{41}\Delta E_{t-1} + \alpha_{41}\Delta C_{t-1} + \varepsilon_{4t} \dots \dots \dots$$

Where

GDP= Gross domestic product

E= Emergency aid

C= Concessional loans

G= Grants

ε_t =Error correction term.

$\alpha_0, \beta_0, \delta_0$ and θ_0 Represent constants.

$\alpha_1 - \alpha_5, \beta_1 - \beta_5, \theta_1 - \theta_5$ and $\delta_1 - \delta_5$ Represents coefficients.

Δ Represents the differential operator in the equations.

n= lag length.

t = time period.

μ_{it} = mutually uncorrelated white noise residuals

3.6.5 Impulse response function

This is described as the reaction of variables to shocks in the system. It is determining to display the effects of the shocks, significance and up to what period of time will the shocks last on the particular variable and other variables. Impulse response function is used to report the findings for Vector Error Correction Model (VECM).

3.7 Chapter Summary

In this section the methodology has been discussed in depth. Explanation on data to be employed in the research, data collection and analysis technique and research procedures have been provided in details. The next chapter provides the results and findings of the analysis.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter entails data analysis, presentation, interpretation and discussion. The data analysis was in accordance with the research objectives which were identified, interpreted and inferences drawn on them. The finding attained from the analysis were presented in figures and tables and thereafter interpreted accordingly. The results were then discussed in comparison with previous studies. The study sought to establish the effects of foreign aid to economic growth in Kenya.

The annual time series data from 1963 to 2018 was used on Kenya's economy containing 55 observations involving the following variables; Gross Domestic Product, emergency aid, concessional loan and grants. The variables were statistically analyzed through descriptive statistics. Consequently, short-run and long-run analysis using Johansen-Juselius co-integration test and the vector error-correction model (VECM).

4.2 Descriptive statistics

Descriptive statistics gives a general over view of the data under study. The researcher computed the mean, standard deviation, minimum and maximum of the variables under study. The mean is a measure of the average of all the observations for a given variable in the data set. Standard deviation is defined as the measure of dispersion; it shows the extent to which the observations are distributed around the mean. The minimum and maximum values point out the lower and upper bounds of a variable's observations respectively. The trend plots facilitate in visualizing the trend of each variable used in the study. The descriptive statistics directed on which equations were able to obtain better results and also pointed on possible problems to face. In addition, it was necessary to supplement the statistics by more insightful quantitative analysis such as correlation analysis. Correlation analysis Matrix is a better indicator that tests

linear relationship between the variables. The analysis helped to determine the strength of variables in the model.

Table 2 Results of Descriptive Statistics

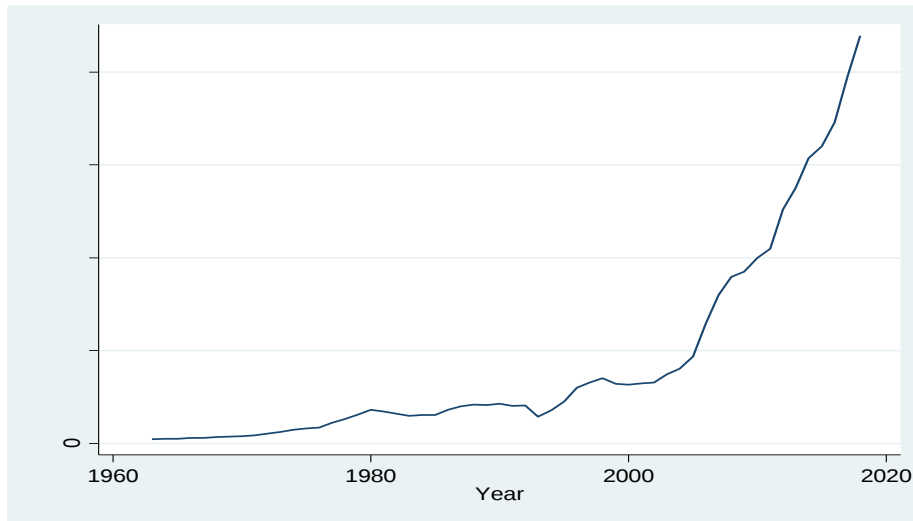
Variable	Obs	Mean	Std. Dev.	Min	Max
GDP USD	56	17,500,000,000	21,700,000,000	927,000,000	87,800,000,000
Emergency Aid USD	56	1,060,000,000	706,000,000	266,000,000	3,100,000,000
Concession Loan USD	56	49,400,000	102,000,000	(56,300,000)	418,000,000
Grants USD	56	472,000,000	573,000,000	3,400,000	1,920,000,000

Source Author (2020)

From the table 2 above the GDP mean was USD 17,500,000,000 with standard deviation of 21,700,000,000,a minimum of USD 927,000,000 and a maximum of USD 87,800,000,000.The emergency aid had a mean of USD 1,060,000,000 with a standard deviation of 706,000,000, a minimum of USD 266,000,000 and a maximum of USD 3,100,000,000.The concessional loan had mean of USD 49,4000,000,with standard deviation of 102,000,000,a minimum of USD -56,300,000 and a maximum of USD 418,000,000.In conclusion the grants had a mean of USD 472,000,000, with standard deviation of 573,000,000,with a minimum of USD 3,400,000 and maximum of USD 1,920,000,000.

4.3 Trend Plots

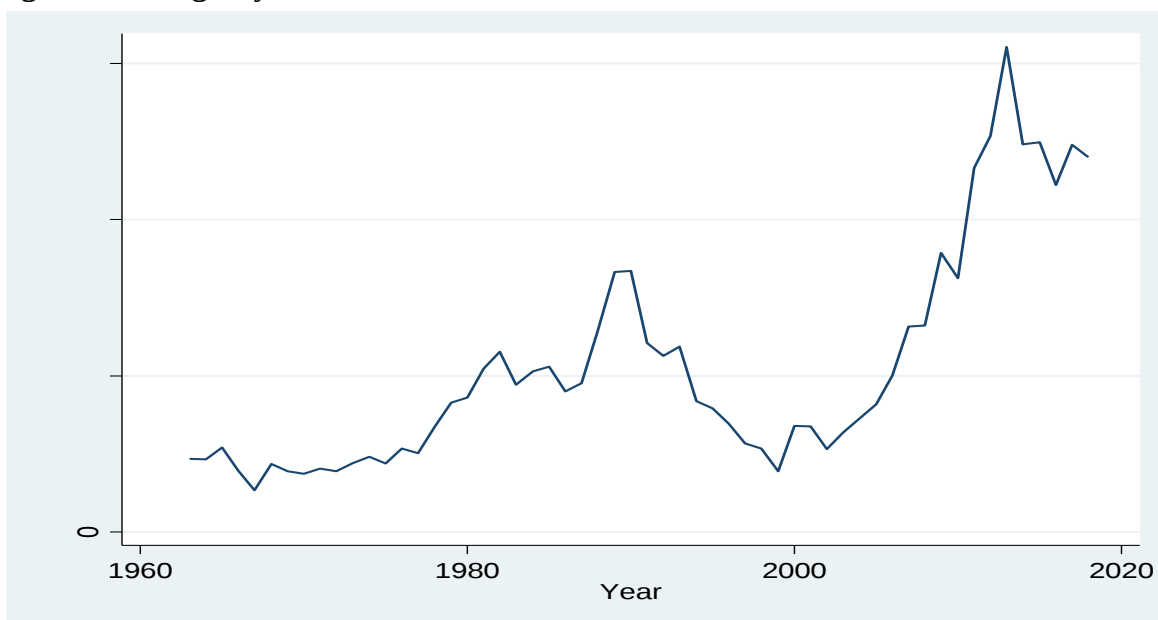
Figure 7 GDP Trends



Source Author (2020)

From figure 7 above the GDP level has been increasing gently since independence until mid-1990s. In 1997/98 due to ethnic clashes there was a slight decrease in GDP growth. After the entry of a new government with improved macroeconomic policies, the GDP started to increase tremendously.

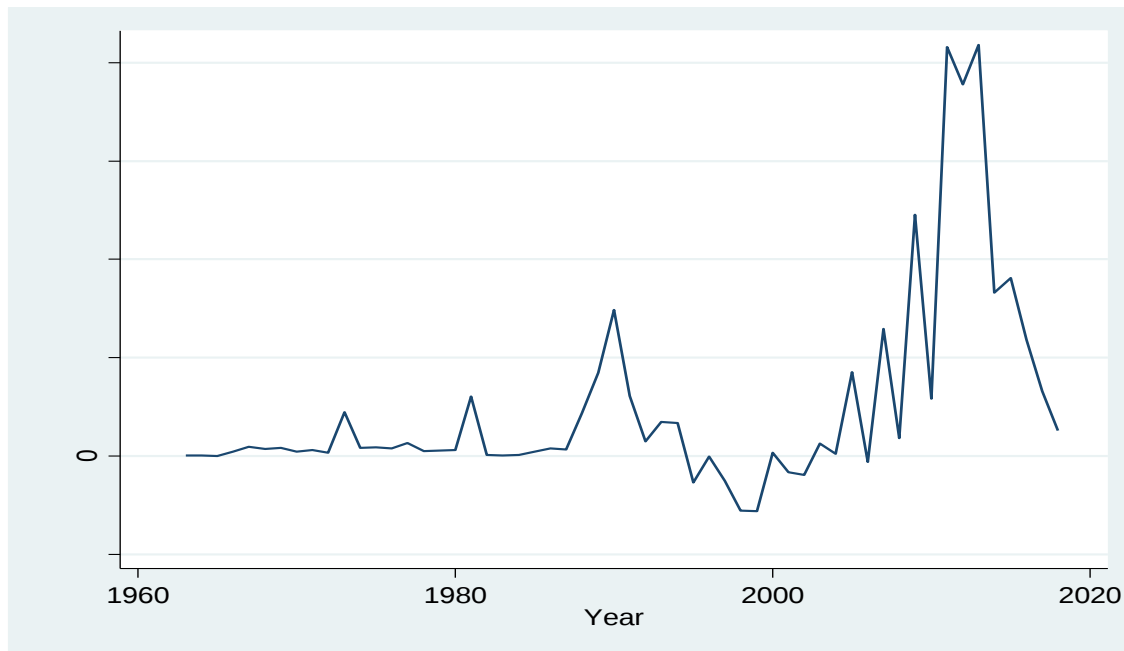
Figure 8 Emergency Aid Trends



Source Author (2020)

From figure 8 above the emergency aid has been volatile experiencing mixed disbursements from the donors. Since 1980s Kenya has experienced erratic flow of aid as per findings of M'Amanja & Morrissey (2005). From early 1960s to mid-1990s the level of emergency aid was increasing gradually, however in 2000 emergency aid reduced drastically. After change of Government in 2002 came donor confidence and the levels of disbursement increased again.

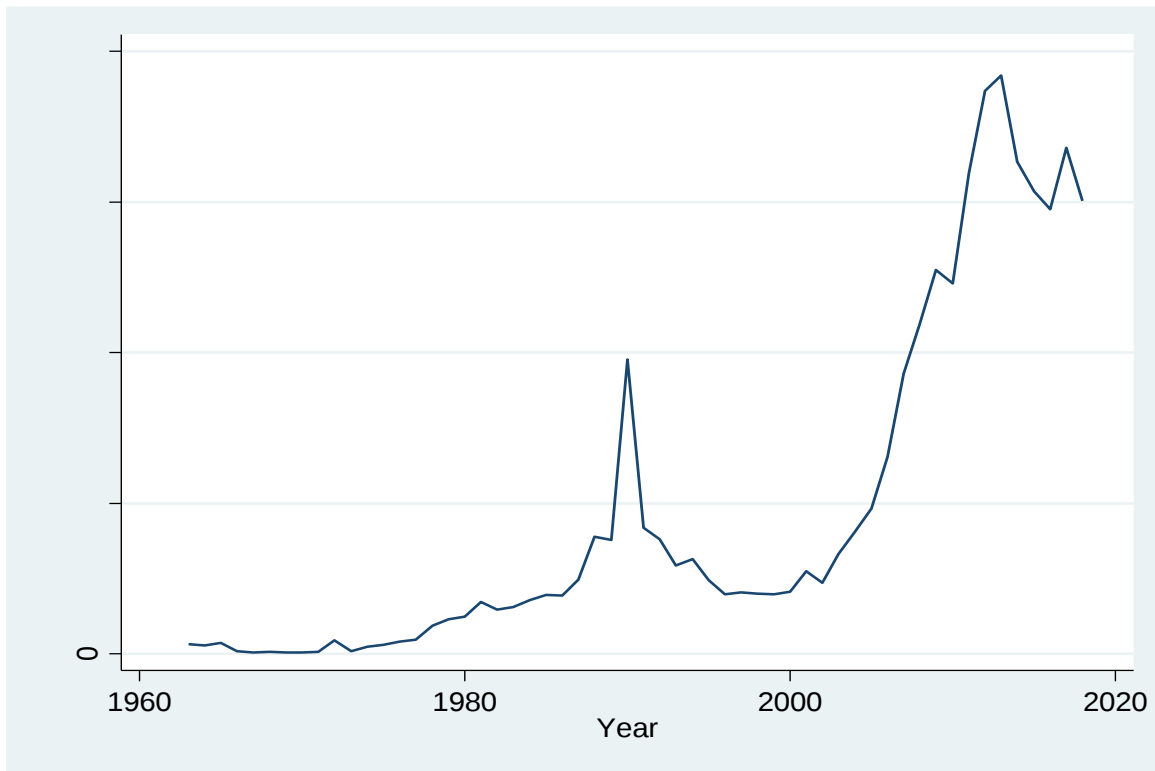
Figure 9 Concessional Loan Trends



Source Author (2020)

From figure 9 above concessional loans have greatly experienced volatility. At independence the country was fairly stable thus low level of loans was borrowed. In late 1990s and early 2000s the confidence level with government was low and defaulting on loans was normal occurrence thus lenders become shy to advance the nation more loans. The fluctuation can be explained by external shocks such as increase in oil prices and global financial crisis among other issues. Currently the level of concessional loans remains high with countries like China, USA and UK being generous with loans to Kenya.

Figure 10 Grants Trends



Source Author (2020)

From the figure 10 above, the level of grant has risen gradually with low disbursement experienced from independence to early 1980s. In mid 1990s the level shot rapidly with more donors coming in in order to help the country cope with Saps. However, in late 1990s donors suspended grant to Kenya due to failure to meet governance reforms initiated by IMF. The establishment of Kenya Anti-Corruption Commission (KACC) IN 1999 deployed measures to improved transparency in government. As established by Mwega (2009) the election of new government in 2002 and Kenya's commitment to reforms in public finance management renewed donor's confidence leading to increase as shown in the figure.

4.4 Diagnostic Test Results

Diagnostic tests were employed to find out whether it was suitable to carry out time series analysis. In essence this was to evaluate the appropriateness of data for time series analysis. These tests include unit root test, co-integration test and model stability.

4.4.1 Stationarity Tests

The first step was to carry out test for stationarity of variables. Stationarity is a crucial requirement before commencing on time series analysis. According to Wooldridge (2012) data that is not stationary may lead to spuriousness of outcome. In addition, Brooks (2010) stated that time series data is termed stationary if it has a mean, variable and autocorrelation that do not change over time. Wooldridge (2012) stated that a time series is stationary if its test statistic is more negative than the critical values at all levels of significance. Augmented Dickey-Fuller (ADF) test was performed. The table 3 below shows the results.

Table 3 Results of Unit Root Test

Dfuller MacKinnon approx. Variable		ADF Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value	p-value for Z(t) At level	
Gross domestic product		7.012	-3.675	-2.969	-2.617	0.9981	non- stationary
Emergency Aid		-0.628	-3.675	-2.969	-2.617	0.8646	non- stationary
Concessional Loans		-2.694	-3.675	-2.969	-2.617	0.0750	non- stationary

Grants		-0.657	-3.675	-2.969	-2.617	0.8576	non- stationary
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Source Author (2020)

To identify stationarity of the variables unit root test was employed using the Augmented Dickey- Fuller (ADF) test. Rule of thumb states that when the p-value is greater than 0.05 reject the null hypothesis of stationarity. The test was performed on the data set showing non-stationarity. Table above provides the results of the unit root test. Data on gross domestic product, emergency aid, concessional loans and grants were non-stationary concluding existence of unit root. According to the analysis the data set showed non-stationarity given that not all time series data for the variables were integrated of order zero. Sims (2007) explained that non stationarity in time series data can be rectified by differencing. This highlighted the need for first differencing to ensure that the variables were transformed to stationarity. All the variables become stationary after first differencing and thus integrated to order one.

4.4.2 Optimal Lag length selection

According to Enders (1995) too small lags may result to model misspecification while too large lag length uses up degrees of freedom. Consequently, using different lag length for each and every variable in the model can minimize the loss of degrees of freedom thou this may also cause asymmetry in the model. In order to obtain optimum number of lags for the analysis, optimal lag order selection was undertaken. This is to avoid inclusion of too many lags or too little lags. Deploying excessive lags leads to loss of degrees of freedom and also using inadequate lags lead to misspecification.

Table 4 Lag Length selection test Results

Selection-order criteria
Sample:5-60
Number of observations=56

Lag	LL	LR	Df	P	FPE	AIC	HQIC	SBIC
0	-2837.81		16		27.4e+69	172.231	172.292	172.412
1	-2719.56	236.5	16	0.000	1.5e+67	166.034	166.339*	166.941
2	-2705.22	28.694	16	0.026	1.8e+67	166.134	166.684	167.767
3	-2685.14	40.16	16	0.001	1.6e+67	165.887	166.681	168.245
4	-2663.47	43.339*	16	0.000	1.4e+67*	165.544*	166.581	168.627

Source Author (2020)

The table above provides results for lag selection. A lag is selected if it is the most preferred by various criteria. From the results the stars indicate lag four is the most suitable to use. This lag order was arrived at by all four information criteria which are Final Prediction Error (FPE), Akaike Information Criteria (AIC), Hanan Quinn Information Criteria (HQIC) and Schwarz Bayesian Information Criteria (SBIC)LR, FPE and AIC point out that four lags to be used in the VEC model.

4.4.3 Co-integration Analysis

Undertaking the cointegration test was important as it guides the researcher on model selection. If a collection of time series is integrated at order one implying that they become stationary after first differencing and another time series which is a linear combination is integrated at order zero meaning that it is already stationary, then they are referred to be cointegrated. If there is cointegration Vector Error Correction Model (VECM) is fitted. If on the other hand no cointegration is established, Vector Autoregressive (VAR) model is fitted. The concept of co-integration implies that there was a long run relationship between two or more non stationary variables' results are shown below.

Table 5 Co-integration Test Results

Trend: Constant	Number of observations=56
Sample 5-60 Lags=4	

Maximum Rank	Parms	LL	eigen value	trace statistic	5% critical value
0	52	-2693.562	-	60.1167	47.21
1	59	-2677.2118	0.62796	27.4879*	29.68
2	64	-2666.8757	0.46550	6.8157	15.41
3	67	-2664.4053	0.13905	1.8748	3.76
4	68	-2663.4679	0.05523		

Source Author (2020)

Co-integration is a statistical technique used in analysing data that is non- stationary at level. This research employed Johansen test (1995) normalised test for co-integration rank where the hypothesis test is:

$H_0: r=0$ (no co-integration) vs $H_a: r>0$ (series co-integrated at least order 1)

$H_0: r\leq 1$ (series co-integrated order 1) vs $H_a: r>1$ (series co-integrated at least by order

$H_0: r\leq 2$ (series co-integrated order 2) vs $H_a: r>2$ (series co-integrated at least by order

Reject H_0 if trace statistic $>5\%$ critical value.

Since trace statistic for $r=1$ is less than the critical value ($27.4879 < 29.68$) we fail to reject that hypothesis that the system has one co-integrating equation and conclude the co-integration rank is one. The results proved that there was a significant trend among the variables hence there exist a long run relationship between gross domestic product, emergency aid, concessional loans and grants in Kenya.

4.4.4 Vector Error-Correction Modeling

After establishing co-integration, we initiate the error correction term in the model. This term captures the long run relationship. It attempts to correct deviations from the long run equilibrium and its coefficient interpreted as speed of adjustment or the amount of disequilibrium transmitted each period to growth.

Table 6 Model Fitness Results

Sample: 5- 60		No. of obs = 56			
Log likelihood = -2677.212			AIC = 165.831		
Det(Sigma_ml) = 3.44e+65		SBIC = 168.5066			
HQIC = 166.7313					
Equation	Parms	RMSE	R-square	Chi2	P>Chi2
D_GDP	14	1.8e+09	0.8804	139.8247	0.0000
D_Emergency Aid	14	2.4e+08	0.5871	27.01678	0.0192
D_Concessional Loans	14	8.8e+07	0.5906	27.40914	0.0170
D_Grants	14	1.6e+08	0.6042	29.00772	0.0104

Source Author (2020)

Having established that the variables in the foreign aid model are co-integrated, vector error correction model (VECM) is applied to derive short-run and long-run effect of the foreign aid equation.

The R-squared shows the level of suitability of variables; economic growth in the period, is explained by 88.04 per cent of its own lags and the lags of emergency aid, concessional loans and grants. Emergency aid in the period is explained by 58.71 percent of its own lags and the lags of gross domestic product, concessional loans and grants. Concessional loans in the period is explained by 59.06 percent of its own lags and the lags of gross domestic product, emergency aid and grants. Grants in the period is explained by 60.42 percent of its own lags and the lags of gross domestic product, emergency aid and grants. All the variables are significant at 5 percent level of significance since the p-values are less than 0.05.

Table 7 Error Correction Model (ECM) Results

	Coefficient	Stand error	Z value	p> z	[95% Conf. Interval]	
Gross domestic product	1					
Emergency aid	-63.4172	35.23509	-1.80	0.072	-132.4767	5.642306
Concessional Loan	334.715	250.0966	1.34	0.181	-155.4654	824.8954
Grants	103.275	45.62404	2.26	0.024	13.85353	192.6965
Con	4.34e+10					

Source Author (2020)

The coefficient of variables represents percentage changes in the dependent variables as a result in percentage change in the independent variables.

P value of the emergency aid, $P=0.072 < 0.1$ while the coefficient is less than one implying that the coefficient on emergency aid is negatively and statistically significant at 10% level of significance. This demonstrated that emergency aid moves downwards at a speed of 634 percent towards the equilibrium.

P value of the concessional loans, $P=0.181 > 0.1$ implying that concessional loans are statistically insignificant in the long run at 10 % level of significance. In the long run grants have a p-value = $0.024 < 0.1$ hence grants are significant at 10 percent level of significance. Grants are moving upwards at a speed of 1032 percent towards the equilibrium.

4.4.5 Checking for Goodness of fit.

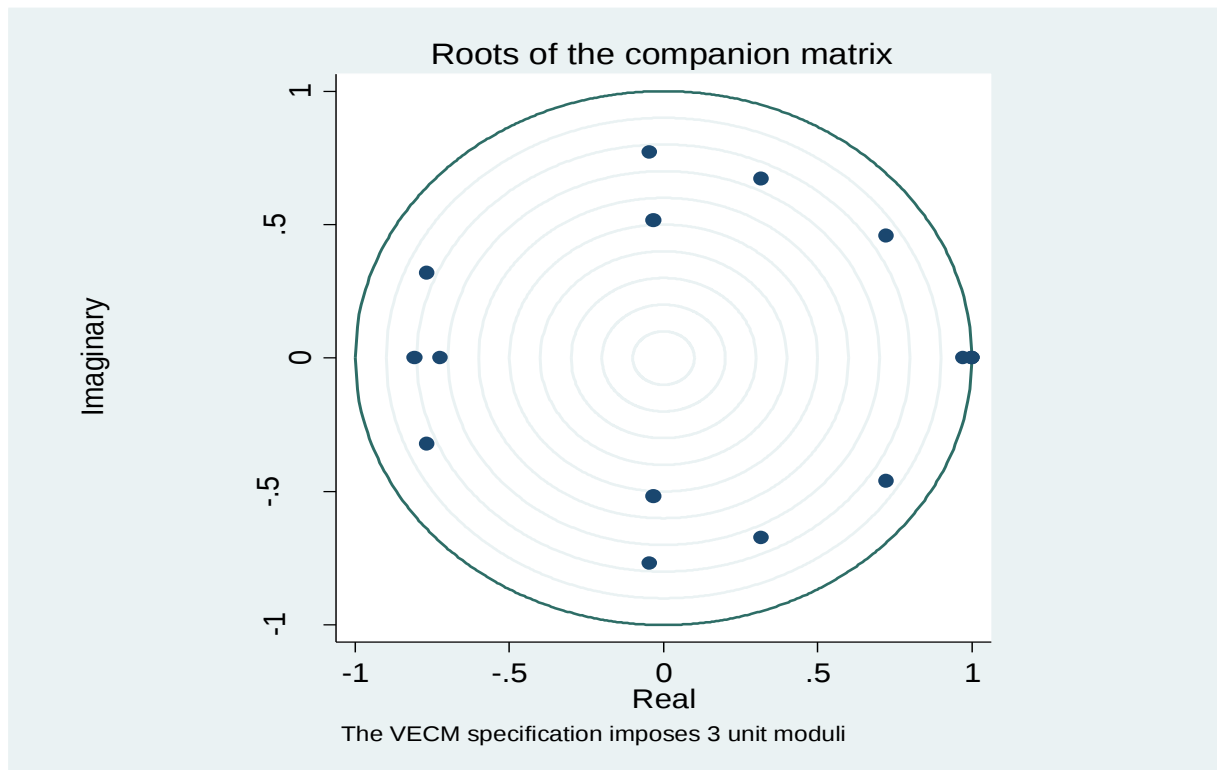
Table 8 Lagrange - Multiplier test Results

Lag	Chi2	Df	Prob>Chi2
1	16.1288	16	0.44401
2	26.5786	16	0.04641
3	15.6219	16	0.47964
4	20.8916	16	0.18272

Source Author (2020)

Bruesch Godfrey LM test for auto-correlation, Jarque-Bera test for normality and stability test are used to check for the suitability of the model. The results are presented in the table 8. Results from the Bruesch Godfrey LM test show no serial correlation since the p-values are greater than the 0.01 level of significant for lags one to four. From the stability test, the roots of accompanying matrix are within the unit circle hence model is a good fit as shown in the figure below

Figure 11 Goodness of Fit



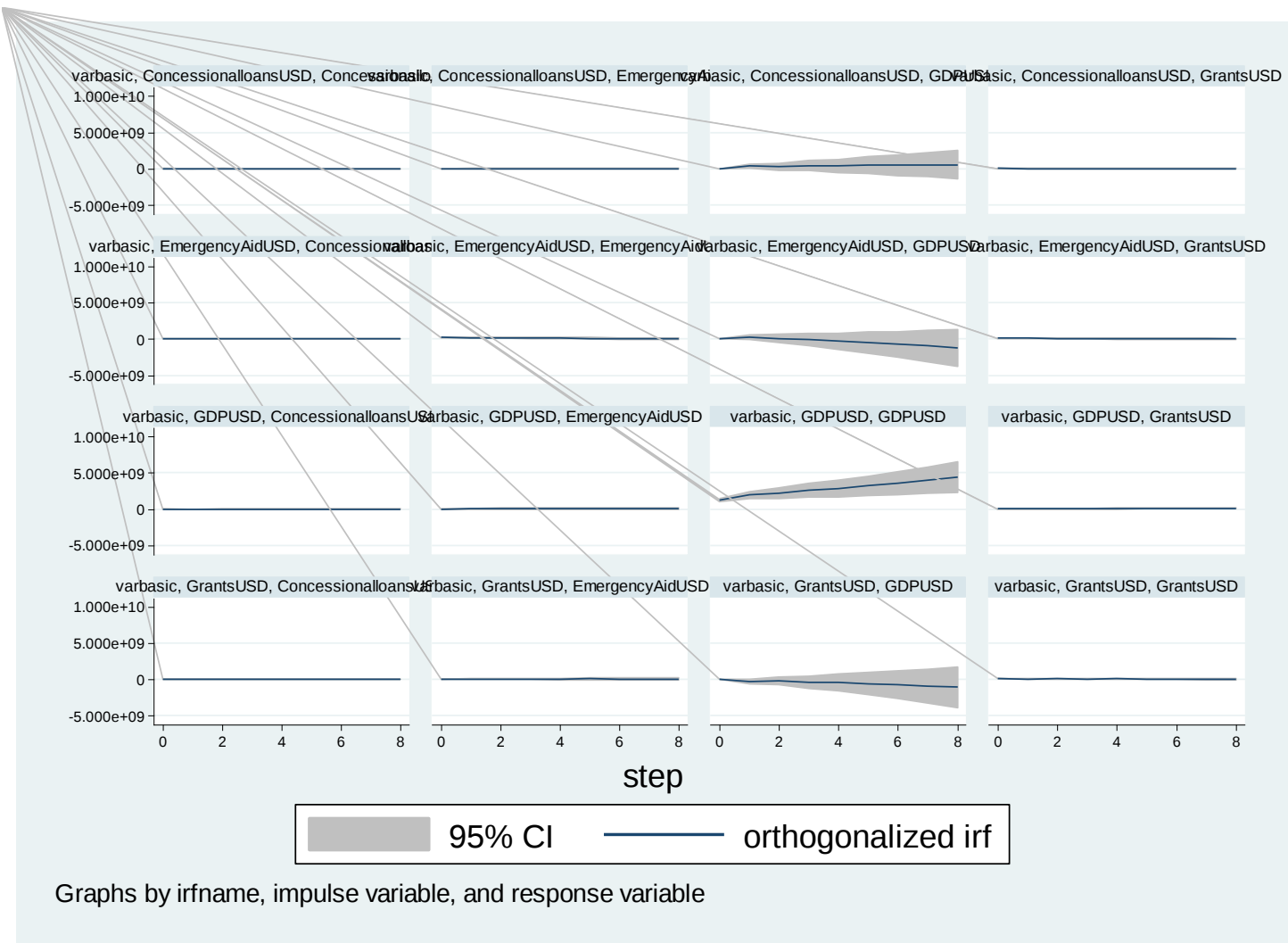
Source Author (2020)

4.5 Impulse Response Functions (IRFs)

Impulse research functions are used to analyze the long-term relationship among the variable shows the behaviors of a variable as result of shocks in the other variables. As shown in the figure 12 below, the effect of gross domestic product on itself shows presence of transitory shocks from period 1 to 3 beyond which the shocks become permanent and insignificant, while the effect of Gross domestic product on emergency aid, concessional loan and grants is permanent and insignificant from period 5. This can be attributed to the fact that emergency aid, concessional loan and grant are not in control of a recipient nation. They are decided by donor nations through their law-making organ such as national assembly and senate. A country like USA through Congress may decide to grant Kenya aid of certain amount depending country policies. This implies that donor can decide to donate a grant of certain amount at their own discretion but the recipient nation can only budget what is disbursed to them. However, whatever amount

is received in terms of emergency aid, concessional loan or grant, it usually affects the GDP of the receiving country as it is an injection to the economy. The findings are in agreement with Kenya Expenditure Review (2005) which stated that it is the donor countries who decide whether Kenya is to receive foreign aid, how much, in what form, the purpose intended and conditions imposed under donor’s assessment and discretion. According to Chege (2008) aid granted to Kenya by various contributors differs from one year to another, depending on nation’s institutional capability to absorb funds and holdups in project procurement process and preparation. The illustration is shown in the figure 12 below.

Figure 12 Impulse Response Function



Source Author (2020)

CHAPTER FIVE

SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

5.1 Introduction

This chapter entails a summary of findings, conclusion and limitations encountered while undertaking the research. Further the chapter suggests policy recommendations that policy makers can implement to accelerate the country's economic growth. As a conclusion the study highlights areas for further studies.

5.2 Summary of the study

Using annual time series data for the period between 1963 and 2018, the study focused on determining the effect of foreign aid on economic performance in Kenya.

Among objectives of the study was to investigate the effect of emergency aid on economic growth in Kenya. Using VECM approach the research found that emergency aid has a negative and significant effect on economic growth in the long-term. This is in agreement to research study by Elbadawi, Ibrahim & Mwega (1999) on saving behavior in Sub Saharan Africa nations using cross sectional data, found out that emergency aid results a decrease in both savings and investment. This conclusion is in line with Barret (1999) who established that programmed food aid which is a form of emergency aid can result to Dutch disease effect on local food producers therefore hurting in a greater way the food sector competitiveness in the universal market

Secondly the research investigated the effect of concessional loans on economic growth measured by the gross domestic product. The VECM analysis showed that concessional loans have a significant impact on the economic growth both in the short-term and the long-term.

Lastly the research investigated the impact of grants on economic growth measured by gross domestic product. The VECM analysis showed that grants have a positive significant impact on the economic growth both in the short-term and the long-term.

The study used Pearson correlation matrix to describe the strength of the relationship between foreign aid and economic growth. From the findings the coefficients indicate that all variables are positively correlated. This means that there is a significant relationship between foreign aid and economic growth in Kenya. These findings were in support of those of Awanja (2017) and Ngugi, Amanja and Maana (2013). The results agree with study by Burnside and Dollar (2000) which concluded that foreign aid had a positive impact on growth for Least Developed Countries with good monetary, fiscal and trade policies in place, but had little or no impact for a country with poor policies. Karras (2006) investigated correlation between foreign aid and growth in per capita GDP of 71 aid receiving poor countries. Study found out that foreign aid has positive and significant effect on economic growth. Further illustrated that a permanent increase in foreign aid by 20 USD per person leads to a permanent increase in growth rate of real GDP per capita by 0.16 percent without putting consideration to effects of policies. Study by Mckee and Bells (2013) sampled 30 Sub Saharan Africa nations. The study concluded that economic growth increases significantly with increase in foreign aid, domestic investment, human capital and international trade over period of 30 years. However, study by Celasun and Walliser (2008) concluded that uncertainty of aid makes it difficult to manage aid even in nations with stable macroeconomic policies since government expenditure is shifted from investment to consumption.

The conclusion also agrees with the study by Samer (2013) which concluded that there was positive and significant relationship between loans and economic growth. Study by M'Amanja *et al* (2005) found that loans tend to have negative association with growth because they are borrowed when there are budget deficits thus contributing to even larger deficits and often repaid when there are surplus consequently reducing savings available to government. Study by Kibui (2012) investigated the impact of external loans to public investment and economic growth in Kenya. The results indicated that debt service ratio is significant at explaining the economic growth in Kenya. Study by Tasew (2010) and Yohannes (2011) established that foreign aid had positive impact on economic growth.

In addition, the results was contradicting with study by Ali and Mustafa (2011) that concluded that there is negative relationship between loans and economic growth. Research by Kemal (2001) concentrated on the debt accumulation and its implication for economic growth and poverty in Pakistan. The results indicated that debt accumulation and debt servicing affect developing countries adversely. Abbas and Christensen (2010) investigated optimal debt levels in developing countries inclusive of 40 Sub Saharan Africa Nations and emerging markets between 1975 to 2004. The findings were that moderate levels of debts compared to GDP have significant positive impact on economic growth. The study ascertained that debt levels beyond 35% of total bank deposits have negative impact on economic growth. The finding also contradicts study by Abeba (2002) which found out that aid has negative effects on economic growth in Ethiopia.

5.3 Conclusions

The study showed on overall, that there is a positive effect of foreign aid to economic growth in Kenya. The positive effects of foreign aid are mostly in community projects and developmental issues where the effect has dripped down to GDP of Kenya after prior year of receiving aid. Study concludes that emergency aid had a significant long-term effect with economic growth in Kenya. However, it is dependent of good governance and sound macroeconomic policies. In Kenya the impact of emergency has not been optimal as expected due to issues on governance. This may be due to poor governance issues like corruption and conflicting priorities whereby the aid is embezzled and misappropriated.

The study concludes that loans did not have a significant long-term effect on economic growth but had a significant short-term effect. If the loans are well utilized for the intended purposes this would result to economic growth. However, if the loans are accumulated a country defaults on payment, there is can be a negative effect on the economy due to hefty interest on loan payment.

5.4 Policy implications and Recommendations

The government should ensure that the loans and aid should be channeled in sectors of economy that would have significant effect on growth. Also, there should be policies and regulation in place to ensure that aid received is not embezzled or misappropriated. This in essence requires policy makers in the government, civil society and oversight bodies such as National Assembly, Auditor General, Ethics and Anti-corruption Commission among others to be extra vigilant and judicious in ensuring that aid received is used for intended purposes.

The government should ensure that loans appetite is controlled to approved limits and managed effectively. Borrowed funds should be invested in capital projects that are viable and capable of generating revenues and not recurrent expenditure such as salaries and allowances.

In addition, the study show that foreign aid is critical ingredient of uplifting economic growth for a country. Consequently, a country should source for more aid which should be used for productive activities whose instant effect will be felt in growth of the country.

5.5 Limitation of the study

This study faced a literature gap since there are very few studies that have been carried out on the foreign aid variables directly on the economic growth and more so in the developing economies. The research was limited to the four selected variables.

5.6 Areas recommended for further studies

More studies should be conducted on areas of technical assistance in relation to economic growth to establish if there is gain to economic growth of the country. There is great debate ongoing on this area as other researcher finds technical assistance as a way of dumping of obsolete technology by developed countries to developing countries. Further the study focused on the effect of foreign aid on the overall

economic growth of the country. Thus, it is important to look into the effects of foreign aid and its contribution to different sectors of economic growth in those different sectors.

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APPENDIX I. DATA COLLECTION SHEET

Year	GDP (USD)	Emergency Aid (USD)	Concessional loans (USD)	Grants (USD)
1963	926,589,348.57	468,950,012.21	868,261.10	32,320,000.00
1964	998,759,333.64	465,529,998.78	783,291.70	27,350,000.00
1965	997,919,319.98	539,099,975.59	263,503.70	36,780,000.00
1966	1,164,519,673.20	391,679,992.68	4,681,657.90	8,580,000.00
1967	1,232,559,505.92	265,839,996.34	9,631,791.80	4,350,000.00
1968	1,353,295,457.53	435,730,010.99	7,044,665.30	6,130,000.00
1969	1,458,379,415.40	389,970,001.22	8,580,000.00	3,540,000.00
1970	1,603,447,357.25	373,149,993.90	4,350,000.00	3,400,000.00
1971	1,778,391,289.19	404,140,014.65	6,130,000.00	5,230,000.00
1972	2,107,279,157.38	388,570,007.32	3,540,000.00	44,360,000.00
1973	2,502,142,444.16	440,170,013.43	44,360,000.00	8,300,000.00
1974	2,973,309,272.04	482,549,987.79	8,300,000.00	22,940,000.00
1975	3,259,344,935.77	439,850,006.10	8,631,791.80	30,550,000.00
1976	3,474,542,392.03	534,770,019.53	8,044,665.30	40,350,000.00
1977	4,494,378,855.33	504,559,997.56	13,306,490.80	46,880,000.00
1978	5,303,734,882.53	675,640,014.65	4,903,283.57	93,220,000.00
1979	6,234,390,975.27	826,070,007.32	5,448,092.85	115,690,000.00
1980	7,265,315,331.62	861,090,026.86	6,053,436.50	122,110,000.00
1981	6,854,491,453.90	1,043,489,990.23	60,534,365.00	172,380,000.00
1982	6,431,579,357.31	1,153,380,004.88	968,261.10	146,390,000.00
1983	5,979,198,463.83	943,739,990.23	883,291.70	154,930,000.00
1984	6,191,437,070.44	1,027,719,970.70	1,263,503.70	178,060,000.00
1985	6,135,034,338.30	1,058,650,024.41	4,681,657.90	194,570,000.00
1986	7,239,126,716.93	899,510,009.77	7,631,791.80	192,950,000.00
1987	7,970,820,530.75	953,969,970.70	6,444,665.30	245,660,000.00
1988	8,355,380,879.13	1,289,390,014.65	43,306,490.80	388,680,000.00
1989	8,283,114,648.37	1,665,170,043.95	84,638,535.10	378,890,000.00
1990	8,572,359,162.86	1,671,250,000.00	148,822,351.90	976,960,000.00
1991	8,151,479,004.21	1,209,579,956.05	61,177,009.70	418,250,000.00
1992	8,209,129,171.74	1,127,260,009.77	14,956,871.00	380,210,000.00
1993	5,751,789,915.05	1,186,599,975.59	34,620,702.50	293,350,000.00
1994	7,148,145,375.79	837,169,982.91	33,474,048.80	313,970,000.00
1995	9,046,326,059.99	790,789,978.03	(26,620,690.00)	243,990,000.00
1996	12,045,858,436.24	691,039,978.03	(319,393.00)	197,350,000.00
1997	13,115,773,737.57	567,099,975.59	(25,353,083.00)	203,250,000.00
1998	14,093,998,843.73	535,460,021.97	(55,465,063.70)	199,550,000.00
1999	12,896,013,576.73	389,350,006.10	(56,276,236.70)	197,550,000.00
2000	12,705,357,103.01	679,020,019.53	3,495,363.30	206,330,000.00
2001	12,986,007,425.88	674,159,973.14	(16,570,704.10)	273,640,000.00

2002	13,147,743,910.72	529,340,026.86	(19,198,992.40)	234,860,000.00
2003	14,904,517,649.85	635,650,024.41	12,623,976.90	330,290,000.00
2004	16,095,337,093.84	726,440,002.44	2,532,759.20	403,660,000.00
2005	18,737,897,744.79	817,380,004.88	85,184,901.70	482,580,000.00
2006	25,825,524,820.81	1,002,950,012.21	(5,968,028.90)	653,420,000.00
2007	31,958,195,182.24	1,316,469,970.70	129,297,952.70	930,700,000.00
2008	35,895,153,327.85	1,322,599,975.59	18,264,475.40	1,096,740,000.00
2009	37,021,512,048.82	1,786,589,965.82	245,191,473.20	1,274,700,000.00
2010	40,000,088,346.80	1,625,469,970.70	58,160,918.20	1,229,150,000.00
2011	41,953,433,591.41	2,330,320,068.36	415,597,643.80	1,594,540,000.00
2012	50,412,754,861.02	2,536,120,117.19	378,109,166.70	1,868,980,000.00
2013	55,096,728,047.94	3,104,639,892.58	417,852,290.70	1,920,750,000.00
2014	61,448,046,801.60	2,484,260,009.77	165,940,438.70	1,634,140,000.00
2015	64,007,750,169.33	2,494,979,980.47	181,277,590.70	1,535,890,000.00
2016	69,188,755,364.30	2,222,929,931.64	118,524,718.20	1,476,460,000.00
2017	78,965,004,656.18	2,480,219,970.70	66,012,910.30	1,680,280,000.00
2018	87,778,582,964.14	2,401,270,019.53	26,050,705.80	1,503,850,000.00

APPENDIX II. STATIONARITY TESTS

. dfuller CurrentGDPUSD

Dickey-Fuller test for unit root Number of obs = 36

Test Statistic	Interpolated Dickey-Fuller			
	1% Critical Value	5% Critical Value	10% Critical Value	
Z (t)	7.012	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 1.0000

. dfuller emergencyaid

Dickey-Fuller test for unit root Number of obs = 36

Test Statistic	Interpolated Dickey-Fuller			
	1% Critical Value	5% Critical Value	10% Critical Value	
Z (t)	-0.628	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.8646

. dfuller concessionalloans

Dickey-Fuller test for unit root Number of obs = 36

Test Statistic	Interpolated Dickey-Fuller			
	1% Critical Value	5% Critical Value	10% Critical Value	
Z (t)	-2.694	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.0750

. dfuller Grants

Dickey-Fuller test for unit root Number of obs = 36

Test Statistic	Interpolated Dickey-Fuller			
	1% Critical Value	5% Critical Value	10% Critical Value	
Z (t)	-0.657	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.8576

