**ISTANBUL COMMERCE UNIVERSITY**

**GRADUATE SCHOOL OF SOCIAL SCIENCES**

**DEPARTMENT OF ECONOMICS**

**ECONOMICS M.A. PROGRAM**

# EXTERNAL DEBT AND ECONOMIC GROWTH NEXUS IN SOMALIA

**M.A. Thesis**

**Mustaf Kasim MOHAMED**

**200010722**

**Istanbul, 2020**

**ISTANBUL COMMERCE UNIVERSITY**

**GRADUATE SCHOOL OF SOCIAL SCIENCES**

**DEPARTMENT OF ECONOMICS**

**ECONOMICS M.A. PROGRAM**

# EXTERNAL DEBT AND ECONOMIC GROWTH NEXUS IN SOMALIA

**M.A. Thesis**

**Mustaf Kasim MOHAMED**

**200010722**

**Advisor: Asst. Prof. Yunus ÖZCAN**

**Istanbul, 2020**

T.C. İSTANBUL TİCARET ÜNİVERSİTESİ

# T.C.
# İSTANBUL TİCARET ÜNİVERSİTESİ
# SOSYAL BİLİMLER ENSTİTÜSÜ

## YÜKSEK LİSANS TEZİ ONAY FORMU

İktisat İngilizce Yüksek Lisans programı öğrencisi Mustaf Kasim Mohamed'in "External Debt and Economic Growth Nexus in Somalia" başlıklı tez çalışması, Enstitümüz Yönetim Kurulu 23.06.2020 tarih ve 2020/510/02 sayılı kararıyla oluşturulan jüri tarafından oybirliği/~~oyçokluğu~~ ile Yüksek Lisans Tezi olarak kabul edilmiştir.

| | UNVANI, ADI SOYADI | ÜNİVERSİTE |
|---|---|---|
| TEZ DANIŞMANI | : Dr. Öğr. Üyesi Yunus ÖZCAN | İstanbul Ticaret Üniversitesi |
| JÜRİ ÜYESİ | : Doç. Dr. Raif CERGİBOZAN | Kırklareli Üniversitesi |
| JÜRİ ÜYESİ | : Dr. Öğr. Üyesi Cihat KÖKSAL | İstanbul Ticaret Üniversitesi |

## ÖZET

Bu çalışma, dış borcun Somali'nin ekonomik kalkınmasına etkisini değerlendirmeyi amaçlamaktadır. Çalışma, özellikle dış borcun ekonomik büyümeyi etkileyip etkilemediğine ilişkin soruları yanıtlamaya çalışmaktadır. Bu amaçla Somali ekonomisinin 1980 ve 2017 yılları arasındaki dış borç, dış yardım, nüfus, gayri safi yurtiçi yatırım, enflasyon ve ihracat verileri ile dış borç oranının GSYİH'ye oranı Autoregressive Distributed Lag (ARDL) modeli kullanılarak analiz edilmiştir. Ampirik sonuçlar, hem kısa hem de uzun dönemde yüksek dış borç seviyelerinin Somali'nin ekonomik büyümesini olumsuz etkilediğini ve önemli ekonomik zorluklar ortaya koyduğunu ortaya koymaktadır. Öte yandan, dış yardımın uzun vadede ekonomik büyüme üzerinde istatistiksel olarak önemli bir olumsuz etkisi tespit edilmiştir. Ayrıca enflasyonun hem uzun hem de kısa dönemde GSYİH büyümesi üzerinde olumsuz bir etkisi vardır. Bunlara ek olarak, nüfusun pozitif ve önemli bir etkisi vardır. Gayri safi sermaye oluşumu ülke ekonomisindeki değişiklikleri açıklamada hem kısa hem de uzun dönemde önemsizdir. Bu nedenle bu çalışma, yerel politika yapıcıların ve Somali hükümetinin, üretim faaliyetlerine ve sektörlere yapılan yatırımlar gibi mevcut dış borç yönetimi politikalarını iyileştirmesini, yapısal değişikliği, kamu sektöründe reformu ve vergi reformunu, genişleyerek dış borçlanma bağımlılığının en aza indirilmesini önermektedir. Somali ekonomisi böylece daha fazla iç gelir elde edebilecektir.



**Anahtar Kelimler:** Somali Ekonomisi, Dış Borç, ARDL Model

## ABSTRACT

This study aims to evaluate the effect of external debt on Somalia's economic development. The study specifically attempts to answer questions as to whether external debt affects economic growth and its impact level. In doing so, this study used the Autoregressive Distributed Lag (ARDL) model to analyze the data from Somalia obtained between 1980 and 2017 with debt ratio to GDP as a function of external debt, foreign aid, population, gross domestic investment, inflation and export. The empirical results reveal that both short run and long run high levels of external debt negatively impact economic growth of Somalia and pose major economic challenges. On the other hand, foreign aid has a statistically significant negative effect on economic growth in the long term. Moreover, inflation also has a negative effect on GDP growth, both in the long term and in the short term. In addition, the population has a positive significant impact. Although the gross capital formation is insignificant both in the short term and in the long term in explaining the economy of the country. This study therefore recommended that local policymakers and Somalia government should improve the current foreign debt management policies such as investments in productive activities and sectors, to implement structural change, reform of the public sector and tax reform, the foreign borrowing dependence should be minimized by expanding the economy so that more domestic income will be generated.



**Key Words:** Somali Economy, External Debt, ARDL Model

**ACKNOWLEDGMENTS**

First of all, I would like to thank Allah for giving me the strength to perform this research and to conquer challenges during this long period.

Next, I am profoundly grateful for the support, suggestions and supportive feedback of my advisor Dr. Yunus ÖZCAN during the research along with other jury members Dr. Raif CERGİBOZAN and Dr. Cihat KÖKSAL .

Özcan's good treatment gave me the courage to complete this study with better motivation. Besides, I also want to acknowledge my indebtedness to many people who have helped me with their a tremendous support and contribution to carry out this study in many important ways.

Last but not least, I would also like to thank all my friends and parents who have shared their knowledge and fondness on all the matters that I required.

## Table of Contents


**ÖZET** ..... iii

**ABSTRACT** ..... v

**ACKNOWLEDGMENTS** ..... vi

**LIST OF FIGURES** ..... viii

**LIST OF TABLES** ..... ix

**LIST OF ABBREVIATIONS** ..... x

**1. INTRODUCTION** ..... 3

**2. ECONOMIC PERFORMANCE OF SOMALIA** ..... 7

**2.1 External Debt of Somalia** ..... 8

**2.2 Foreign Aid of Somalia** ..... 10

**2.3 Foreign Direct Investment in Somalia** ..... 15

**2.4 Turkish government and its investors in Somalia** ..... 19

**2.5 The improvement of the country's human capital** ..... 20

**3 LITERATURE REVIEW** ..... 21

**4 RESEARCH METHODOLOGY** ..... 42

**4.1 Data** ..... 42

**4.2 Theoretical Framework and Model specification** ..... 43

**4.3 Method of Estimation** ..... 47

4.3.1 Descriptive statistics ..... 47

4.3.2 Unit Root Test ..... 47

4.3.3 Testing Correlations ..... 47

**4.4 Autoregressive Distributed Lag ARDL Method** ..... 47

**4.5 Diagnostic test** ..... 48

4.5.1 Normality Test ..... 48

4.5.2 Heteroscedasticity ..... 48

4.5.3 Autocorrelation ..... 48

**5. EMPIRICAL RESULT AND DISCUSSION** ..... 49

**6. CONCLUSION AND POLICY IMPLICATIONS** ..... 59

**REFERENCES** ..... 62

## LIST OF FIGURES

**Figure 1.** External debt of Somalia ..... 5

**Figure 2.** FDI Inflows of Somalia in US Dollar ..... 7

**Figure 3.** Foreign Aid by Donor ..... 11

**Figure 4.** Official Development Assistance ..... 12

## LIST OF TABLES

**Table 1.** Main Variables ..... 43
**Table 2.** Descriptive Statistics ..... 49
**Table 3.** Correlation Matrix ..... 51
**Table 4.** Unit Root ..... 51
**Table 5.** Long-run coefficients, dependent variable: GDPG ..... 52
**Table 6.** ARDL Cointegration test results, dependent variable: GDPG ..... 55
**Table 7.** Diagnostic test ..... 57
**Table 8.** Normality test ..... 58

## LIST OF ABBREVIATIONS

**IMF**: International Monetary Fund

**HIPC**: Heavily Indebted Poor Countries

**USD** US Dollar

**ODA** Official Development Assistance

**NGO**: Non-Governmental Organization

**UN**: United Nations

**SVAR:** Structural Vector Autoregression

**ARDL:** Autoregressive Distributed Lag

**OLS:** Ordinary Least Square

**LDC:** Least Developed Country

**GARCH:** generalized autoregressive conditional heteroskedasticity

**ICG:** International Crisis Group

**OECD:** Organization for Economic Co-operation and Development

**FMOLS:** Fully Modified Ordinary Least Squares

**PMG:** Pooled Mean group

**VEC:** Vector Error Correction

**GMM:** Generalized Method of Moments

**MENA:** Middle East and North Africa

**VECM:** Vector Error Correction Models

**GNP:** Gross National Product

**ECM:** Error Correction Model

**CEE:** Central and Eastern Europe

## 1. INTRODUCTION

External debt by definition is borrowed money from foreign lenders by a nation or government to repay the debt plus attached interest to the debt in a currency in which the loan was made. Countries that have borrowed money may have to export their resources and goods to the creditor country or international markets, to earn the foreign currency that borrowed and to repay (Panizza, 2008). Foreign borrowing is seen as a serious trend for all early stage developing countries as they are often confronted by restricted national growth and development capital. Thus they can borrow from developed countries and lender organizations to fill the gap in local resources. External borrowing includes, nevertheless, fixed fees, including interest, regardless of actual returns on the borrowed funds. If a nation spends the money inefficiently or is a matter to unforeseen difficulty, negotiated service payments may not be able to meet. There have been possible debt service issues for several years and, more recently, there have been real service interruptions in developed countries (Abuzaid, 2011). As most developing countries typically have insufficient funding resources for their annual budgets. Emerging economy governments mostly borrow to adjust to the fiscal gap between expected revenues and planned expenditure. Consequently, for many years, governments in developing countries have accrued massive external debts, with small per capita income, insufficient reserves, weak tax bases and an inept tax collection mechanism.

In modern law, debt does not have clearly defined definitions and may generally be called what an individual legally owns to another one or is obliged to pay money through legal action. Soludo, (2003) Stated that there's two specific categories that countries borrow, for the sake of macroeconomic reasons; which is higher expenditures and investments for example education and health or to fund the transitional balance of payment deficit, for lower nominal rates overseas without long-term domestic loans or to bypass the restriction of budgets by hand. According to the economic literature, all external obligations may be defined as external debt, due for repayment in over a year, that are not paid at a specific point in period and are likely to be payable from reserve

currency or via goods and services. In comparison, international borrowing gives debtor countries benefits and costs. Nonetheless, the debt crisis phenomenon continues to surpass the international borrowing budget for many developing countries (Suma, 2007). The key advantage of international borrowing is that it provides debtor countries with tools for development and economic growth, while the expense is correlated with debt service obligations. Debt benefits are the ongoing payment of the calculated on the initial principal plus the accrued interest, also known as amortization over the term of the loan. The debt-service burden is based on the volume of the debt and the rate of interest. As debt volume increases or interest rates rise, the debt-service burden often rises (Shuaglin & Kim, 2001)

Most literature scholars argue that external debt is one of the principal factors for slowing down economic development in developing countries. The hypothesis of debt overhang of Sachs (1989) is the most ordinary claim to build a negative relationship between economic growth and external debt. According to the debt overhang theory, creditors expect higher tax rates to finance international debt service payments as countries incur external debt. Investment and growth will be negatively impacted. However, if the fund is used for productive purposes, some debt accumulation can have a positive effect on growth. That is to say, if external debt financing is used to fund investment, it would lead to improve growth in economy of the borrowing nations. This happens when the gross investment efficiency is equal and greater to the total interest repayment cost and principal. Nevertheless, even though it is important to repay the foreign debt, Debt service payments take resources from the use of domestic purpose. The high foreign debt service reduces savings and exchange profits for domestic investment and social services to the increasing population. (Kar & Cartwright-Smith, 2006). Many countries around the worldwide borrow to finance various economic sectors, in particular industries, energy, transport and communications, education and agriculture and others sectors which may result the need of external debts and foreign assistance. Somalia is no exception to this; for certain rational reasons, the government borrowed and has been barrowing funds to finance certain projects due to the budget

deficit and the low level of investments in the country subject to repayment of the loan within a certain period of time.

While Somalia has numerous sources of funding for economic development, over time its dependency on external debt and foreign aid has increased. This means that domestic financial resources are not enough to fund their development projects and promote economic growth. Nevertheless, nearly all foreign debt is an annual accumulation of credit between the government and creditor nations and lending institutions. According to the classification of the World Bank's highly indebted economies ranking, the nation is one of the highly indebted low-income nations. In recent decades, Somalia's external debt has significantly changed in size and composition. As figure 1 shows in 1980, it amounted to approximately US$ 6.7 million and in 2017 to US$ 2.9 billion.

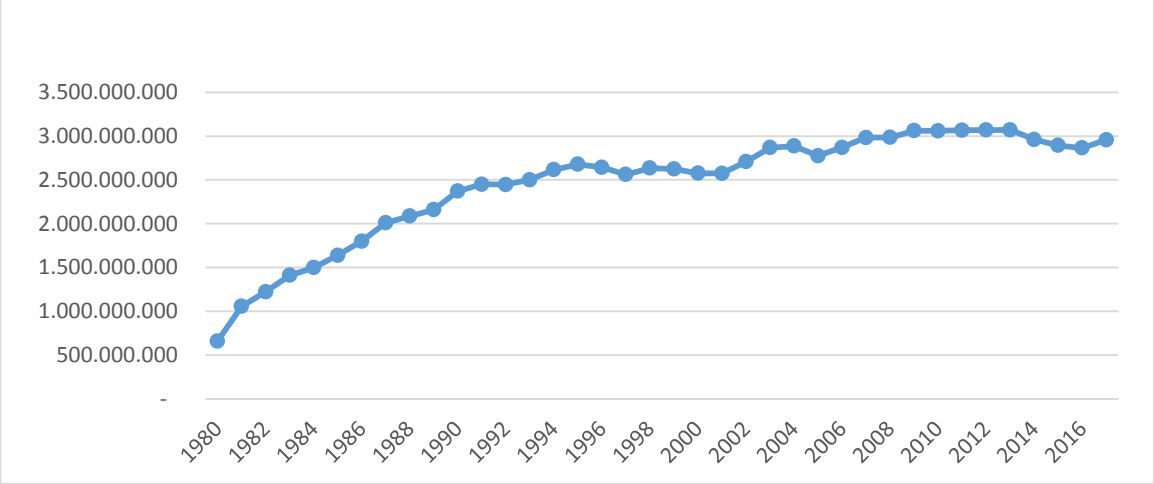



**Figure 1. External debt of Somalia**

**Source:** World Bank

The overall purpose of this study is to analyze the impact of Somalia's external debt and economic development. The analysis aims to assess the country's patterns, magnitudes and structure of debt profile and the performance of the country's economy and make possible recommendations in line with this general objective. The main aim of

this study is to clarify the relationship between external debt and economic growth in Somalia, the study covers 38 years of annual data from 1980 to 2017.

This study is to be significant in the following aspects after it is completed. First, the practical knowledge and abilities of the study researcher will be improved by familiarizing with empirical data on the topic of the analysis and related macroeconomic issues. Secondly, general knowledge about the link between economic growth and foreign debt will be provided. Thirdly, it will serve as a framework for future studies of external debt and economic growth. And hopefully, it will provide details and evidence for recommendations, policy implications and guidelines to evaluating the relationships between external debt and economic development.

The research consists of six chapters. The first chapter deals with introductory sections like study context, aim of the paper, the scope, etc. The second chapter deals with the theoretical and analytical study of literature. In the third chapter, the summary of Somalia's debt profile and economic performance of the country is addressed briefly. The fourth chapter explained the research methodology and specification of the model. Chapter five addresses the interpretation of the findings rigorously. The conclusion and policy implications are discussed in chapter six.

## 2. ECONOMIC PERFORMANCE OF SOMALIA

This part provides the overview of the economic performance of Somalia, such as; Somalia's sustainability debt, foreign aid and the current intervention of Turkish government and its investors.

Hence, this section of the study is going to highlight and shed light on the socio-economic activities and the political involvement of the Turkish government in Somalia, mainly its systematically well-structured approach towards Africa and especially to the progression of the process of peace building and collaboration with the Somali government. Therefore, this study seeks to make use of the existing interviews done by Somali public officials to understand their ideological perception of the existence of the Turkish government's involvement in the country and the study will also be organizing Turkish activities strictly in the perspective of comparing other exterior actors operate inside the country and how should the Turkish government will deal the dynamic conflict of the country. Thus, this figure below explains the general FDI inflow of the country ranging from after the coup d'état of the military government led by the brutal dictator Barre which overthrown the predecessor government due to the assassination of the president by one of his personal guards. However, this figure shows that the FDI inflow fluctuations of the country in the sequential years of war and international crisis of humanitarian problems emerge from the African continent and in Somalia particular**.**

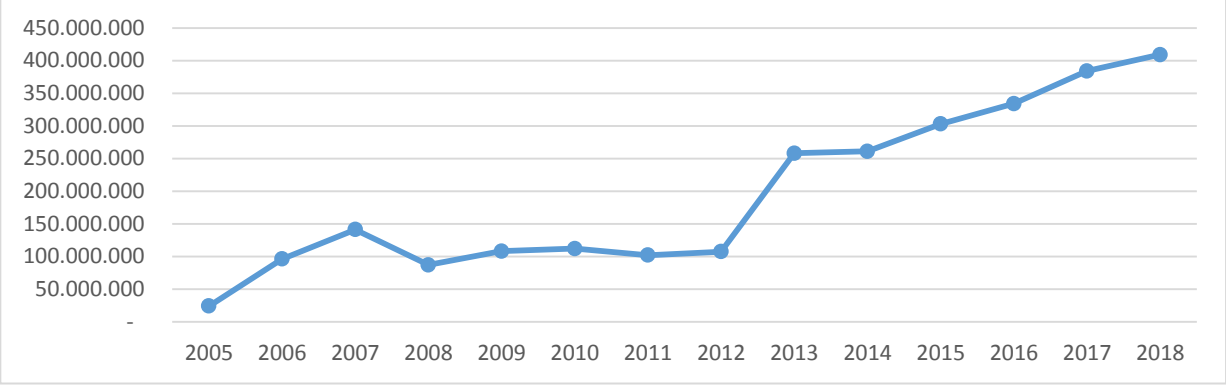



**Figure 2. FDI Inflows of Somalia in US Dollar**

**Source**: World Bank Database, Somalia country profile, 2018.

Referring to the statistics of the FDI database of the World Band, foreign direct investment made received by Somalia has merely increased from $24 million in the year of 2005 to a greater exportation of $409 million in 2018.

However, imports from Turkish government to Somalia differ and has numerous kinds of goods and service which include commodities like edible cereals, packaged milks, wheat flours and various types of service such as that of optician service treatments, hospital facilities and the affordable medication being provided in the country by the Turkish government has made for the domestic people to get treated inside the country instead of flying to an expensive foreign country for medical purpose. Thus, Somali governments' main exportation to turkey is that of livestock, animal feathers and the untapped fresh fish in Somalia's territorial sea. Even though some may say that the volume of trade between both countries is secondary, it is believed that the growth potentiality of the country, in the long run, would be increased ideally due to the extraordinary engagement of the Turkish government in Somalia. Therefore, there's a Turkish intervention in Somalia whether be it FDI or any other type of involvement.

### 2.1 External Debt of Somalia

The story of the current issue of Somalia's external debt must be historically rooted. Since independence, past governments of Somalia has negotiated bilateral and multilateral creditors' loans to fund many political, economic and social goals (Somalia NGO Consortium, 2018). The bulk of foreign debts were used to fund the ambitious Public Spending Plan of the former Government and to maintain balance of payments. Much portion of the debt was also used to fund military government expenditures, including years of civil war, from the 1960s to the late 1980s. In the 1980s, Somalia faced challenges in debt services and signed two resettlement agreements with the Paris Club, the informal creditor alliance of wealthy industrialized countries that agreed to cooperate with countries faced with external debt problems. By 1990, the outstanding foreign debt of Somalia had risen to 277% of GDP. In 1991 the nation began to incur

arrears on its foreign debt obligations when the Central Government collapsed. At the end of 2017, the international public debt is calculated at US$ 4.6 billion, 26 years later.

There are 27 recognized creditors in Somalia in three categories: Multilateral, Paris Club and non-Paris Club, each of them has a debt of 32.8%, 53.8% and 13.4%. Most foreign creditors are mindful of the problems of the Federal Government of Somalia and do not expect past and current debt obligations to be paid until the Somalia international debt relief procedure tackles the issue. This assumption is evident in the establishment of the Somalia Technical Working Group on External Debt on the part of Somalia's international multilateral and bilateral creditors. The Technical Working Group of Somalia, co-chaired by the Federal Government of Somalia, the IMF and the World Bank, invites both multilateral and bilateral to take part voluntarily. The Technical Working Group on External Debt of Somalia is an informal forum for Somalia and its creditors to share information on their country's external debt, discuss issues related to the progress of Somalia in debt relief, take stock of the country's reforms track records, and identify capability gaps that can be resolved to promote pro-Somalia support.

The majority of the people of Somalia 67% were born after the 1980s, and have little gain from Somalia's 4.6 billion dollars of external debt, such as construction projects which have little lasting effect as a result of the destructive conflict. The strain of these debts on the current generation is unfair and even more troublesome if it restricts access to vital support and concessional services. Somalia is in debt distress based on both foreign and public debt metrics. The overall government debt is very high, at 4.8 billion dollars or 101 percent of GDP at the end of 2018. Debt pressure in Somalia represents high external debt arrears related to GDP, which now account for 96% of the debt stock. Although Somalia is unable to obtain any new financing, it will continue to increase its debt burden as late interest on arrears to build up. Somalia took the required steps to start receiving debt relief. According to the IMF and the World Bank, a significant move which allows the Horn of Africa to reduce its external debt in the amount of $5.2 billion to approximately $557 million.

The International Monetary Fund and the International Development Associations of the World Bank argue that this decision would effectively normalize Somalia's ties with the world, after 30 years outside the international financial system. It's expected that Somalia's creditors, including the US, Russia, Italy and France, should take on a debt relief decision for Somalia. The announcement by the IMF and the World Bank will send a strong signal about the future of Somalia and its intensive reform attempts in the last eight years to the Paris and non-Paris club creditors. Somalia, with a population of 15 million, is the 37th nation to achieve this Decision Point under the initiative of HIPC. The decision comes at a time when Somalia has been dealing with the outbreak of the Coronavirus, the latest desert lobster invasion, and planning for elections later this year of 2020. The IMF and the World Bank mentioned that the debt relief will help Somalia make a positive improvement for its people by enabling its debt to be irrevocably reduced by approximately three years after its HIPC completion, from 5.2 billion USD at the end of 2018 to 557 million USD in net current-access terms, The World Bank has also proposed a series of new instruments to assist Somali communities plagued by floods, the invasion of savages and brace them for the threat of Coronavirus. According to this, standardizing international community ties may reopen Somalia's access to key extra financial assets to boost the economy, improve social conditions, lift millions out of poverty and build sustainable jobs for Somalis. Somalia owes around $5 billion of foreign debt and also it indicates, between 2000 and 2019, the rate of external debt increased significantly because of its survival and for the funding of development projects that will contribute to GDP on a long-term basis.

### 2.2 Foreign Aid of Somalia

However, foreign aid became one of the most influenced indicator of Somalia's economic growth. According to the Ministry of Planning (2019), in 2017 and 2018 Somalia received US$ 2 billion in Official Development Aid (ODA) annually. The overall ODA was 57% higher than the previous five years (2012-2016), which averages US$ 1.3 billion a year. In the past decade, development assistance has gradually risen from just 202 million dollars in 2009 to 874 million dollars in 2018. In 2018, more than

half of development assistance was received jointly by the European Union, the United Kingdom and Germany (US$ 454 million). UK, USA, Germany and the European Union were the main providers of the humanitarian aid, delivering overall humanitarian assistance in 2018 as you can see in Figure 3:

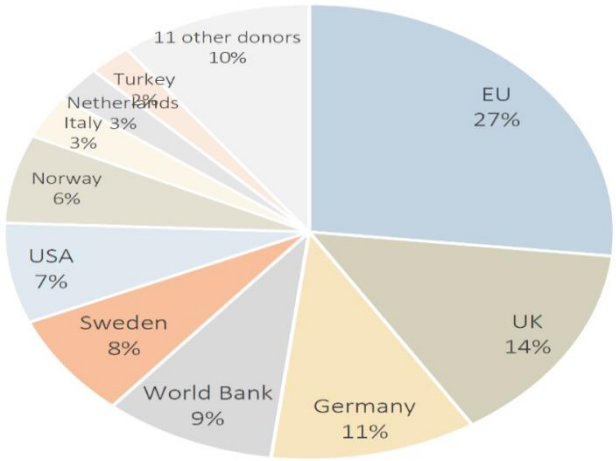



**Figure 3. Foreign Aid by Donor**

**Source**: Ministry of Planning, Investment and Economic Development

According to the Ministry of Planning (2019) donors increased their treasury help worth to US$ 114.2 million in 2018, compared to US$ 105.5 million in 2017. However, the contribution to the treasury has marginally decreased (from 14.6% in 2017 to 13.1% in 2018), as total development assistance from donors has increased. For the humanitarian aid in 2017, however, the rise in ODA was largely motivated by a rise in drought relief. Donors delivered humanitarian assistance of US$ 1.3 billion, which accounted for 65 percent of total ODA that year. The early distribution of humanitarian assistance in 2017 possibly played an important role in preventing famine in Somalia (Aid Coordination Unit, 2017).

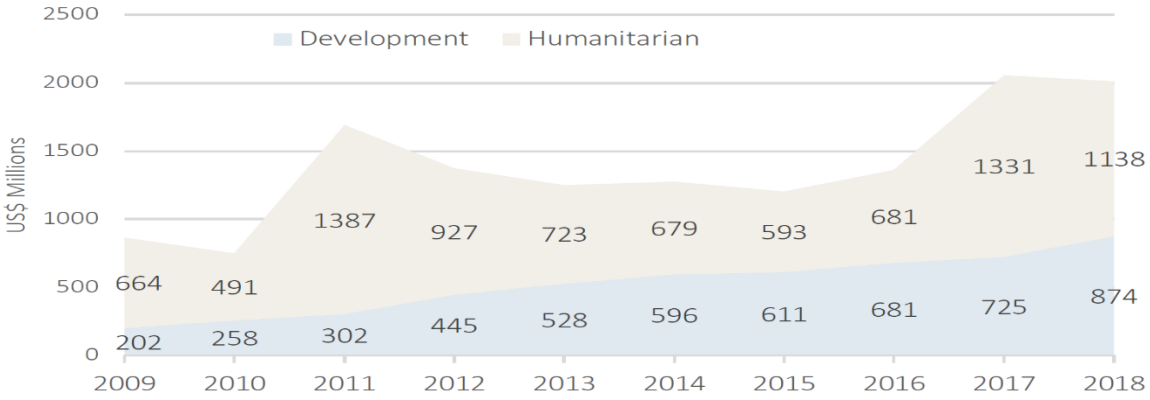



**Figure 4. Official Development Assistance**

**Source**: Ministry of Planning, Investment and Economic Development (2019)

Figure 4 is also showing that the high level of overall ODA for development assistance in 2018 remained up by 20 percent, from US $725 to US $874 million.

Historically, prior to the Turkish government's arrival in Somalia, the country relied entirely on foreign countries for economic assistance, political settlement and resolution of conflicts between the rebel groups within the region. The nation has been victims of humanitarian starvation and manmade poverty, civil war breakouts, Al-Qaeda-linked terrorist groups, and the absence of a governing body with a strong institution and a mismanagement of the country's political coherence. All of this is also assumed to be part of the region's insecurity and stability and has also contributed to the neighboring countries targeting and stabilizing the region in the mid-1990s against the international terrorist groups. Over the past few years, economic conditions and security problems of a war-ravaged world have drastically increased and have transformed into a mode of association of causes and effects. Because of the instability of country political leadership and the regular ambush of the militants and related groups of al-Qaeda, society was disrupted and faced with a common pool of deprivation in the hurricane valley of death. FDI has therefore gained a great deal of attention in the last two decades and is viewed as an integral element in the implementation and activity of the economic benefits of technology transfers, accessibility and exposure to the international market, knowledge-sharing and spillage programs, development of employment and social improvement (Nor, Alabdullah, & Masron, 2017).

Likewise to the other countries of the developing world, African nations which belong to the organizations of Islamic countries had also been looking for a means of improvement and ways to attract inflows of FDI from the advanced nations, however, these organization member governments have had attracted a tiny and small percentage share portion of the world FDI which is believed to be going to the developing world, and the reason for this is that most countries belong to this organizations are not sufficiently developed enough to show their attraction to their developed counterpart In addition, (Akpinar, 2013) asserts that this country Somalia is a newly born nation after being in a condition of more than 20 years of prolonged civil war and political tension, so he argues that Somalia could be a target place for both Turkish investors and the rest of the world to invest and get the ripple effect of the first mover advantage in the long run. In the year 2003, the Turkish government had declared its novel overseas policy towards the least developed nations especially the African continent. Hence, this was then regenerated in the year of 2005 by President Tayyip Erdogan, the then-prime minister of the Turkish government with his high profile visit to many African nations including the two leading and largest economies in Africa, i.e. Ethiopia and South Africa (Kocaman, 2009).

Consequently, the Turkish government has seen a beneficial interest in the African continent and it has doubled its diplomatic relationships with many African countries, therefore, African union recently has given much consideration to dealing turkey as their main strategically. However, researchers claim that the Turkish government would be considered as the newest foreigner country to have intervention and involvement in Somalia, and in August 2011, the extraordinary trip of the Turkish prime minister to Somalia capital, Mogadishu have had positive signal and fruitful results that has enabled to display the freshness of the country and the efforts needed to establish a long-lasting peace in the territory (International Crisis Group [ICG], 2012). There were some intellectual advises given to the Turkish government investors by the international crisis group which said that Turkish investors have to make sure and bear in mind while operating in Somalia not to exploit or deploy the suffering and the vulnerable Somali communities which are very volatile and has no some meaning of

resistance (ICG, 2012). It is generally believed that Turkish involvement in Somalia is not only a way of creating market opportunities but rather it could be a way of displaying its systematically emerging power approach to a practically handle cases happening in the long conflict-affected and war-torn out countries of the developing world. Since Turkish governments' extraordinary profile interferences during the worst period of famine and hunger in Somalia, and the Turkish government provision of their best humanitarian support, aid and developmental issues and the capacity building programs aimed to revive the Somali people to readdress their daily lives struggles and overcome the long-term duration of the fragile state situation. For these years, the Turkish governments' model of involvement in Africa has dramatically emerged and therefore named by the quick and fast delivery of their humanitarian programs led by the Turkish higher personnel officials on the Somalia territorial home ground.

However, this emerging model of the Turkish government is also signified for their commitment of displaying soft power on the African peninsula in terms of business relationships based on mutual interest and the emersion of the cultural affinity with the depiction of the Turkish Muslim identity. So some researchers believe that this type of approach is contradicting to the other already existed conventional donors in the horn Africa, Somalia who did often being accused of the misuse of the power, low level progression, isolation of some sectors and mainly being stuck their operations only in the airport of Somalia, Mogadishu, or some would argue that the provision of aid materials from whether in kind or cash remotely somewhere else outside the country, including the neighboring countries (Wasuge, (2016). Nevertheless, in Somalia recently, there had been a frequent and various kinds of actors and investors whose interests and objectives vary according to their mission of involvement in the country, however, these geopolitical interests emerges from the very first neighboring countries of Kenya, Ethiopia, and the brotherly country which was once part of the Somali peninsula but now has the sovereignty of being called an independent state, Djibouti, and up to the way of the long-established international donor countries such as that of the United Nations and the Great Britain, and likewise to the more renowned regional agents such that of the southern Africa and the United Arab Emirates and the Turkish

governments new intervention in the region. Apart from the prolonged existence and the financial level of investment of these countries, the researchers argue that none of the above-mentioned nations had established the widespread global attention that the government of Turkey has made since their symbolic intervention of the country during the crisis of famine and starvation in 2011.

### 2.3 Foreign Direct Investment in Somalia

Traditionally, Africa is believed to be that it has experienced anything related to civil war, armed groups, and territorial dispute, social conflicts, and therefore in many regions of the world. Africa is considered to besynonymous with violence, chaos and political unrest. According to Addison, Billon and Murshed (2001) in Africa there has been militia armed group conflicts fighting under different names of umbrella in 16 geographically different countries in Africa in the year 1999 and still the socioeconomic and political problems, violence and civil conflicts are a matter of ongoing process and endless situation in many continental parts of Africa. He argues that Africa immediately needs to have quick revival and recovery from socioeconomic turmoil and the political unrest, long term economic challenges, social conflicts and the concern of launching technological advancement which now is in backward condition caused by a combination of many factors including lawless society, poor governance, and leadership corrupted environment. As most these conflicts are rooted on the aspect of recourses sharing and the power sharing of the political leadership of the country, the government and the states should reorganize and transform the structure and the economic management of the country and settling down the financial performance of the country's banking systems. Therefore, the support and the technical assistance of the global community should have big contribution and tangible change to the process of reforming the country's political settlement, but it is believed that the ultimate prosperity and the triumph of the country whether be it economic development and/or fully functioning financial system and the developments of all other sectors are placed in the hands of the local people. Moreover, Addison, Geda, Billon and Murshed (2005) claim that social and political conflicts have a gigantic manipulation on the performance of together the

government, state and non-state actors and it has a considerable institutional devastation accordingly any type of conflicts should not be marginalized as an issue that shapes the internal and the external policies of the country's economy. Conversely, it has been stated that the social or political conflicts might change the manner and the inner behavior of the people and the specific practitioners and the lawsuit regulators. Therefore, behavioral changes of the regulators and the policy practitioners are technically an integral part for the effective reformation of the financial system.

However, Abdulle and Ali (2004.) argue that conflict-driven Somali society started way back to the European colonial era after they significantly divided the country into many different political states. This political division of the country has had its psychological burdens on the modern Somali community which still suffers the long-rooted conflict among the Somali ethnic groups because of the weak governance and conflict crisis of the post-colonial period followed by the collapse of the brutal regime government that failed to handle the situations of the country and make things stable. Therefore, armed conflict groups overtaken most of part of the country and thereby created violence and chaos in every region of the country, confusion, and killings were prevalent across the whole country and the situation goes off from the hands of the central government. The economic conditions, social stability, and the political leadership became fragile while the public buildings and the infrastructural development of the country were in turmoil and in some meaning were totally destroyed.

Somali government has carried out a lot of different national level reconciliations for the last two decades aimed for the hope restoration of the country and making long lasting of the Somali peninsula but unfortunately all these peace progress efforts has been faded to operate and destined to get failure of every bit of that collective action for peace seeking reconciliations. Therefore, rule of law became something that is no longer in existence in Somalia (Mukhtar, 2006). He argued that the need for peace ingredients and reconciliation process stay onwards and should be solved only by addressing all the emerging challenges of the country properly with the clear vision bringing tranquility and trustworthy among the Somali community. Thereby, Turkish government investors

and the other international businessmen should also participate in the efforts for peace building programs and reconciliations by playing as the role of a constructive mediator in the activities happening in Somalia.

In general, it is believed that Poverty in the developing world is devastating and overwhelming so prevalence in Somalia and many other of horn of African nations in the African continent, the UN and World Bank has been doing developmental programs in the country but unfortunately this societal development has not been spread throughout the country due to the insecurity and the poor institutional governance structure in the country. Therefore, developmental support of the livelihoods' capacity could be an integral part to consider and to be fully taken into ones account the potentiality of the private sector would be of benefit to the growth and the future competency of the country. Moreover, it is believed that in the absence of peace and stability in any region of the globe it would be harder and difficult to make any developmental engagement in the long run, thus, it is constantly needed to have a safe environment where specifically peace and security issues are in existence throughout the country (UN & World Bank, 2013)

However, all of these, partly due to security concerns relating to its instability and a lack of strong political leadership would exist among international actors. however, to drive any major reforms or assistance to help the state that emerges from its deplorable ordeal; hence, The lack of strong political institutions, the developmental infrastructure and in fact the authority in the East African states had been a major barrier to intervention on any significant level with powerhouses such as the United States (US), Britain, Russia, and many other international NGOs labeling the capital and other parts of the country a hostile place to visit and they alarm it as  a no-go areas. In late of 2011, tens of thousands of civilian people perished and there were millions of internally displaced people in Somalia that required immediate aid assistance from the global community, so, however, it came as somewhat of a surprise when Turkey declared its resolve and humanitarian aid to the war-ravaged country, calling on others advanced nations to follow suit for the hope restorations of the country. Thereafter, it is then

followed by the phenomenal visit by the then-Prime Minister Erdogan of the Turkish government that year, which marked the first visit by a non-African country leader for almost two decades. Thereby this remarkable visit was labeled an "icebreaker" due to the international actors regaining their hope to intervene and establish mutual business interests in Somalia; a new era for Somalia was born as the world turned its attention back to the plight of the war-torn country. Turkey, widely lauded as Somalia's modern savior, and thereby has since paid more attention to Somalia than any other country by way of humanitarian aid, investment and the establishment of political and military links. However, the part tends to seek an answer to what are the socioeconomically developmental opportunities brought by the Turkish businessmen investors on the grounds of the Somali economy?

Some researchers believe that the Turkish Government does not only come to Somalia to make profits from its FDI but rather to take part and contribute the struggle of overcoming the long-term absence of security issues in the region and also help the Somali government and its fellow brothers to have peace and stability in their motherland, so Turkish government suggested to Somali government that the only way to get back to the world stage and overcome the long rooted problems of the country is to invest and develop the essential economic development means, the very basic needs of the country is the development of the country's infrastructure, rebuilding the transportation roads, settling down the educational system of the country which was collapsed with the collapse of the central government in 1991, And the improvement of the military and police facilities in order to get the restoration of the already dead rules and regulations of the country by enhancing the country's rule of law and order maintenance. Though the politics of a lawless and fragile society would be a burden and challenging issue for foreign investors to have FDIs on the grounds of these countries; however, researchers claim that this issues could be reduced into a satisfactory level by the domestic government develops its governmental institutions. Nevertheless, the Turkish government has considered the investment of the Somali seaports and the airports and recently started the contribution to the process of rebuilding the Somali territorial marine navy forces and the reason of this investment is the geopolitical

location of the country because Somalia owns the longest sea coast in the whole of the African continent. It is therefore anticipated and hoped that the contribution of the Turkish FDI would be an added value to the development of the concerning security issues and will maintain the stability and the sustainability of the Turkish governments' FDI in the country at large.

### 2.4 Turkish government and its investors in Somalia

Before the arrival of the Turkish government the country was in turmoil and in a fragile situation, however things immediately changed after the phenomenal direct intervention of the Turkish government in the form of humanitarian support and then later followed by the big Turkish organizations and many other Turkish business owners who wanted and saw crucial opportunities to invest in Somalia. For their keen interest in the country, they suddenly started to invest some kind of business that is profitable for them and the Somali community as well. To that point, Turkish government investors revealed that they are ready to invest some essential sectors of the economy such as that of seaports, airports, the energy sectors, the networking, and the telecommunication and the electrical appliances of the government. However, it is believed that Turkish investors coming to the Somali capital Mogadishu to invest have been increasing unanimously. Although some argue that Turkish investors have the clear theoretical business mindset for their investment while on the other hand some foreign investors that have already existed or are in line with other international businessmen in the country stay only for auditing and screening if there might be a market opportunity for Turkish investors that could be challenged and competed with. Turkish government investors generated for the investment of different economic sectors of the country by investing a well-planned large capital to the fragile economy of the country and in return creating employment opportunities for the young population of Somalia government. Despite the fact that the country has ups and downs and the risk level is tremendously outrageous but all of these costs will be outweighed by the ample and the profitable investment opportunities in the long run (Nor, et al., 2020).

### 2.5 The improvement of the country's human capital

The Turkish government has created vocational schools, educational training schools and many other medical schools that are aimed for the improvement of the Somalia people to get high-quality goods and services at an affordable price. So, researchers have defined human capital as the process of accumulating knowledge, gaining skills and overall becoming competent in some certain areas and by then to operate an employment that could be helpful and productive in a manner of economic-oriented value (Mubarik, (2015). Moreover, researchers argue that Turkish government investors have brought their companies to Mogadishu, Somalia capital which has created many different kinds of employment opportunities for the Somali youth, the construction companies of the Turkish government have indeed brought technology and the new way of teaching the local unskilled and semiskilled labor force to carry out their tasks in a systematic fashion. However, FDI is believed has the contribution of the country's economic recovery by the creation of infrastructural developments, employment opportunities and the technological enhancement of the country and the new ways of producing products during production process by these way foreign investors will make use of the utilization of the domestic workforce to redouble their productivity improvement and therefore subsequently these local labor force will in return get developed and be enhanced in the technological knowledge and understanding and their techno skill level development. Yet, foreign direct investment is generally believed that it has a positive contribution to development and skill set improvement of the human capital of a country by considering how is the domestic country's national policy will be directing and guiding the FDI foreign investors to keep on the progress of developing the country's human capital. It is therefore acknowledged that social conflicts, political unrest and the economic problems of the country will be diminishing as long as peoples' human capital has improved because violence and chaos are associated with rampant and widespread poverty.

# 3 LITERATURE REVIEW

According to prior literature the relationship between foreign debt and economic development have been observed. And the conclusions are not the same. Therefore, this study will contribute to enlarge the previous literature and the body of knowledge by examining the role of external debt on economic growth in Somalia with other relevant macroeconomic variables. However, Hwang, Chung and Wang (2020) Observed debt overhang, development of the financial sector and economic growth. They used panel data from 20 high-level international debt countries selected from Asia and Latin America to examine the development-debt-growth nexus of financial sector under an endogenous framework of growth and financial development. First, they found that the ratio of external debt-to-GDP is significantly negative among the 20 high external debt countries, they further suggested that large amount of debt is detrimental to an economy's growth. Second, simultaneous GMM equations between development of the financial sector and economic growth have been implemented, which measure the interactions between economic growth, external debt and development of the financial sector. Empirical findings shown that the negative effects of high indebtedness on growth seem to be strongly negatively affected by the tendency to return to financially restrictive policies. The study also stated that there is a bilateral relationship between the development of the financial sector and economic growth. On the other hand, Ada and Kharusi (2018) The relationship between foreign government borrowing and economic growth has been studied, and Oman's external debt has been gradually rising to finance its annual budget. Time series data from the World Bank and Oman's Central Bank were collected between 1990 and 2015. They employed a co-integration approach with the Autoregressive Distributed Lag to assess the short-term dynamics of foreign debt and economic growth. The study shown a negative and significant effect on Oman's economic growth of external debt in line with some current empirical evidence. In addition, the study suggests that the external debt fund be used more productively to affect positive growth. Abdelaziz, Rim and Majdi (2019) analyzed if external debt is a driving force for low-income countries' spending and economic development. Using 2000-2017 data, this study analyzed 23 countries in the sample and analyzed a split

sample in two groups: the more indebted (11) and the less indebted (12). The empirical findings of the apparently unrelated regression model indicate that external debt reduces both the sample and sub-samples substantially, for both investment and economic growth. The paper also found that openness to trade is positive and significantly related to per capita growth. For the complete sample and the divided sample, this positive correlation is verified. Findings also suggest that growth rates have a significant and essential effect on investment in the overall sample and in less indebted countries.

Furthermore, Akram (2011) addressed the effect of public debt on Pakistan's economic development. This study analyzed the impact of public debt on Pakistani economic growth investment using the ARDL model. In addition, the report also explored several other economic growth variables. In Pakistan, public external debt, both short-term and long-term, have a negative and substantial GDP and investment relationship per capita. Consequently, the findings indicated strongly that there were debt overhang impacts. The only debt servicing in the short term has a negative and significant per Capita GDP relationship. However, this research did not indicate the presence of the "crowding effect," because debt servicing does not appear to impact investments significantly. Debt has a negative and significant association with investment, which means that private investment appears to overwhelm. Yet domestic debt has a major impact on per capita GDP relationship and this investment has a significant per capita GDP link. Keeping the results in mind first and foremost implies that heavy external reliance must be discouraged. Politicians should also not use debt to deficit but instead make attempts to raise revenue or slash current spending.

Generally, External debt is thought to be determined by many factors and the first thing that can be emphasized could be the economic condition of the country. However, according to Casares (2015) investigated the relationship between foreign debt and economic growth. A two-good endogenous growth model was used, tradable and non-tradable growth model is presented. Only domestic technical information is generated in the tradable market. This information is transmitted to the non-tradable industry. The government pays external debt for part of its expenditure on tradable

goods. The domestic rate is equivalent to the foreign rate plus the risk premium of the region. The country's vulnerability depends positively on the amount of foreign government debt. Households can borrow and are restricted by foreign loans outside the country. The relationship between the external public debt-to-GDP ratio and the steady rate of growth is inverted nonlinear in U-shaped. This nonlinearity between public debt and development in both developing and developed countries is empirically proven. The negative consequence is that the country's risk premium rises with a rise in foreign public debt and interest payments on public and private debt. As a result, household disposable income and GDP savings are decreased and investment opportunities for capital assets are reduced. Thus, growth rate is harmed.

Additionally, Ali and Mustafa (2012) Considered the short-term and long-term impact of the 1970-2010 economic boost in Pakistan, taking into consideration annual expenditure on human capital as a proxy of education, capital and external debt. Then a long-term equilibrium check was obtained while a correction simulation obtained short-term results. Finally, the adjustment detected for error correction term was calculated. Evidence from the empirical shown that international debt has a detrimental impact on economic development; it also shown that higher foreign debt discourages economic growth. Nevertheless, Qayyum and Haider (2012) recommended the government should finance development projects through earned income, in case a need of more funding then the government should go for international aid financing and reduce the overall debt burden that is spoiling the whole economy.

Onafowora and Owoye (2017) in general, the authors observed the effect on economic growth in Nigeria of external debt shocks: the SVAR review. The paper used a structural vector auto regression, generalized model of economic growth augmented with a debt variable to describe the dynamic effect of innovation to the ration of foreign debt to GDP ratio on Nigeria's per capita GDP growth, employment, trade openness, exchange rates, and inflation from the 1970 to 2014. The results shown that shocks of external debt have negative long-lived effect on economic growth. Researchers like, Saungweme and Odhiamboa (2020) investigated the impact of foreign public and

domestic debt on economic growth: empirical evidence from Zimbabwe. The paper applied ARDL approach to investigate the effect of national and international public debt on Zimbabwean economic development from 1970 to 2017. The study complements the on-going debt-growth debate by examining the effect on economic growth of aggregated and disaggregated public debt. The author further stated that Zimbabwe's economic development is influenced by public debt negatively. Moreover, Gachunga and Kuso 2018) observed the influence of Sub-Saharan Africa's foreign debt and economic development. The underlying logic theory entails that, a country should borrow as long as the gained capital yields a rate of return higher than the costs of foreign borrowing. In this situation, the economy of the borrowing country should increase its ability and output by promoting foreign savings. In sub-Saharan Africa, countries are implementing an economic growth policy that relies heavily on external finance. The results of the generalized method of moment indicated that the economies of Sub-Saharan Africa have a negative impact on external debt. External debt has proved particularly harmful to middle-income economies relative to its low-income counterparts.

However, Muritala (2012) explored the correlation between economic development and external debt. The collection of data is mainly secondary between 1980 and 2010. The research assumed that external debt, debt repair and economic growth had a negative connection. Data collected were retrieved using the OLS technology and Augmented Dickey Fuller to test variables' stability. The findings shown that the linkage between economic development and foreign debt is negative. Furthermore, Genç and Tandoğan (2015) argued that the developing countries can choose how external debt impacts their economic and development positively. However, failure to efficiently use of the external debt and to choose how and when to repay external debt may adversely affect economic growth. In this paper, the effect of foreign barrowing on economic growth was analyzed in Turkey using the 1971-2011 annual data. The results of long-term studies showed that the external debt is negative and statistically insignificant for economic growth. On the other hand, the effects of the error correction model show that the effect of external debt in the short-term on economic growth is negative and

statistically significant. The significance of these empirical findings is that the external debt has not impact on the long-term economic growth, while the external debt, which was not used in efficient areas, has a negative effect on the short-term economic development.

According to Shahzad, Zia, Ahmed, Fareed and Zulfiqar (2014) They investigated the effect on economic growth of external debt: Pakistan case study. Since the 1980s, they further stated that Pakistan's rising debt and debt payment service has been focused and taken into account by policy makers and economists. This study was conducted further to evaluate and examine the effect of external debt revamping on the development and growth of Pakistan's economy. In order to meet the study's objective, five variables; external debt servicing, net exports, production, savings and direct foreign investment were used to focus the data on GDP or Pakistan's economic growth. The major variable of external debt has a significantly negative effect on GDP. Additionally, Omodero (2019) examined the effect of foreign debt on Nigeria's economic growth. This study analyzed the effect of external debt on Nigeria's economic development. The analysis covers the period 1997-2017 and the data are analyzed using the ordinary least square regression method. The result of the regression showed that external debt has a significant negative effect on economic development. Tchereni, Sekhampu and Ndovi (2013) examined the impact of external debt on Malawi's economic development by using date of annual time series. For Malawi, The results show a statistically negative association between external debt and economic growth.

Nevertheless, Wamboye and Tochkov (2016) assessed at the relationship between foreign debt and growth with an emphasis on multilateral debt relief. In particular, the study used a sample of 33 LDCs over the 1970-2010 period to analyze the effect of indebtedness on growth before and after involvement in debt relief initiatives. The findings have stated that lower rates of debt boost economic growth. Depending on initial rising conditions, the average effect of debt on growth in HIPCs is negative at around 64-78% of GDP. In the period following the introduction of debt relief measures. Interestingly, HIPCs were generally more likely to shift towards or continue the positive

trajectory of growth. However, the cycle was correlated with lower debt rates, particularly in countries with moderate to fast growth initially, whereas debt relief appeared less important for potential growth in countries with moderately declining growth. On the other hand, Azeez, Oladapo and Aluko (2015) observed The foreign direct investment or external debt: which has a greater economic impact on Nigeria? This study assessed Nigeria's significant economic effect on development from 1990 to 2013 as a result of FDI and external debt. The model described the gross domestic product as based on the valuation of foreign debt and the influx of FDI. Estimating the model with the approach to error correction model. The findings shown that foreign debt is linked to economic development negatively, but insignificantly linked, whereas FDI is also negatively linked to growth. Foreign direct investment is shown to be of importance to economic growth; thus, FDI inflows have a greater effect on Nigeria's economy than external debt inflows.

However, Ramzan and Ahmad (2014) examined external debt growth nexus: macroeconomic policy position. Between 1970 and 2009, this paper discussed the effect of external debt on economic growth in Pakistan. Empirical analyzes of external debt's impact on growth enable external debt to interact with macroeconomic policy index and provide an added factor in multilateral external debt to the financial ratio's growth regression. The empirical study on the external debt growth effect is based on the ARDL method of cointegration. The findings shown that foreign debt has a negatively influence on growth, but in the presence of a solid macroeconomic policy, this adverse effect can be minimized or even reversed. Similarly, Reinhart and Rogoff (2010) argued that the sharp upturn in public debt is likely to be one of the most lasting legacies of the financial crisis of 2007-2009 in the United States and elsewhere. The study analyzed history of up to two centuries of 44 countries of central government debt, inflation and growth results. The major result is that high debt / GDP rates in both developed and emerging markets (90% and above) are correlated with substantially lower growth outcomes. Much lower external debt/GDP ratios (60%) are related to negative outcomes for emerging market growth. With respect to Checherita-Westphal and Rother, (2011) assessed the average per capita GDP growth effect of government debt in 12 Eurozone countries for about 40

years beginning in 1970In addition, the debt-to-GDP ratio of government has a deleterious effect on long-term growth of approximately 90%-100% of GDP, and it shown a non-linear influence on development. Debt turning point confidence intervals indicate that the negative growth impact of high debt could start from GDP rates about 70-80 percent, requiring even more conservative indebtedness policies. From a political viewpoint, the findings offer additional reasons to reduce debt to promote longer-term opportunities for economic development.

On the other hand, impact of inflation on economic growth is becoming global issue in the economy. Regarding to Zermeño, Martínez and Torres (2018) Examined the impact of inflation on financial sector performance: new evidence from quintile panel regressions. The study discussed the effect of inflation on the conditional distribution of financial developments, which is one of the topics that are not discussed in related literature, data covering the period 1980-2010 from 84 countries were used. The data shown that fixed effects occur, that cross-sectional dependency on the error structure is denied and that the pool capacity is justified. The empirical approach has used standard and fixed quantitative regressions to show that inflation varies according to the amount of financial distribution that is subject to change. The overall impact of price increases on Financial Variables was generally adverse and non-linear; statistically significant in the whole sample of countries, significant developing countries and insignificant in developed countries. Moreover, Turkay and Atasoy (2019) in the last decade, the prominence of inflation targets has increased and the number of inflation targeting countries reached 40 by the end of 2016 as their monetary policy system. This study analyzes whether inflation targeting around the world has succeeded in achieving the announced goal and maintaining inflation. The paper argued that a successful inflation target requires a stationary inflation deviation from the target. Time series as well as panel root tests were used to analyze stationary inflation deviation properties. The results of unit root tests shown how the international inflation targeting system performs.

However, Inflation targeting in emerging economies has become popular. According to Mariscal, Powell and Tavella (2018) they examined on the Credibility of

Inflation-Targeting Regimes in Latin America. Eight Latin American countries introduced this policy and succeeded in rising inflation. The continued progress depends, however, on the credibility of the goal. They understand reputation as anchoring strict inflation expectations and establishing a methodology for measuring shock response. Inflation expectations have gained popularity over time, but credibility is suffering if inflation rises above target. Similarly, Afzal, Sarwar and Arshed (2013) argued the high food prices in Pakistan could impede the achievement of the Millennium Development Goals and seriously threaten Pakistan's poorest food security and socioeconomic prosperity. For econometric analysis, Toda Yamamoto's ARDL approach to cointegration and causality techniques (1995) was used. The study shown that food inflation is negative, the author later stated that, food inflation levels can be first estimated and food inflation must be kept below its threshold level in Pakistan. On the other hand, Chaudhry, Ayyoub and Imran (2013) Studied does inflation matter for sectoral growth in Pakistan? The present work aimed to examine empirically the effect of inflation on Pakistan's sectorial production. For the analysis of annual time series data starting from 1972 to 2010, three key sectors (e.g. agriculture, manufacture and services) were chosen. It has been found that inflation has a substantially different effect on sector production depending on the type of the sector. The prevailing inflation is detrimental to manufacturing production; while inflation's impact on the production of services is in sharp contrast to the growth outcomes in the manufacturing sector. Statistically, the positive effects of inflation have been found to stimulate the growth of the services sector. Inflation and the growth of the agricultural sector are found to be positive and significantly related. It is suggested that inflation be restricted in a single-digit region, to have a positive effect on sectorial growth. In addition, it is concluded that the extremely low level of economic inflation is not advantageous for Pakistan's increasing agricultural and service sectors

Su (2020) explored why should China's central bank focus on inflation headline? In this report, the study examined the change in the dynamic relationship of short-term headline inflation using a threshold error correction model and explained why the central bank of China would concentrate on headline inflation during monetary policy. The

findings show: firstly, primarily by returning core inflation to high inflation headline inflation, headlining inflation is reduced, suggesting that the long term inflationary pattern is much stronger than that of core inflation. Secondly, the food price increase has become a major trigger for public inflation, and the food inflation intensity shows that the rising food price was not a transient phenomenon, but a long-term trend of inflation. The above findings indicate that the Chinese central bank should not enforce a monetary policy focused on core inflation except food prices, but should respond to the emerging food. Moreover, Hasanov and Omay (2011) The relationship between output growth, inflation and its uncertainties was addressed: evidence from selected CEE. In this paper, the causal links between inflation, production growth, inflation uncertainties, and production uncertainty were explored in 10 countries in Central and Eastern Europe. To this end, they estimated a GARCH model bivariate that includes production growth and inflation levels for each country. The paper then used inflation and production conditional standard deviations to provide nominal and actual uncertainty respectively and carry out Granger causality checks. The findings indicated that inflation contributes to uncertainty about both inflation and production growth, which is detrimental to real economic activity.

Additionally, Lin and Ye (2012) observed what to target? Exchange rate or inflation. This study compared the traditional exchange-rate targeting program empirically for the first time with the latest inflation targeting mechanism in developing countries. With a sample of 50 developing countries from 1990 to 2006, by applying various propensity score matching method and dynamic panel of generalized method of moments. The paper found a strong empirical evidence that states inflation targeting leads to a slightly lower level of inflation rate, relative to exchange rate targeting and that the lower rate of inflation is not at the cost of slower growth. With respect to, Chaudhry, Ismail, Farooq and Murtaza (2015) In Pakistan, they researched monetary policy and its inflationary pressure. Inflation has always been a major concern in the context of socio-economic policy. The process by which it arises is of fundamental importance for wise policy formulation. The aim of this study is to research the impact of money supply growth in Pakistan on inflation rate. Annually data series ranging from

1973 to 2013 are used for the study. The study model explored both the long term and the short term effect of money growth on Pakistan's rate of inflation. Depending on the properties of time series data, which confer mixed order of integration, ARDL technique is employed. Diagnostic and stability tests confirm model reliability and performance. Its effects are main; interest rates and supply of money are significant policy variables for the long-term regulation of inflation, while the national production level puts downward pressure on the short-term inflation rate.

According to Ciccarelli and Mojon (2010) while they were investigating the global inflation. On their study, they have shown that inflation is essentially global in developed countries. First, inflation in 22 OECD countries is normal, reflecting almost 70% of the variance. This co-movement is not only due to inflation trend elements from 1960 to 1980 and later, but also to variations in the rhythms of the business cycle. Second, a reliable mechanism for error correction takes domestic inflation closer to global inflation. A simple model consistently slashes normal thresholds for forecasting inflation in samples and countries four to eight quarters ahead. Nevertheless, Ang, Brière and Signori (2012) examined Inflation and Individual Equities. Since 1990, stocks with high inflationary capping have seen higher average returns than stocks with low inflation betas, and appear to be drawn from the oil and gas field. The authors found that stock inflation betas have substantial time variations, which makes it difficult to build portfolios of stocks that are effective out-of-sample inflation hedges. This result involves portfolios built on past inflation betas for sector portfolios and portfolios focused on high-dividend stocks.

However, Svensson (2015) investigated the possible unemployment cost of average inflation below a credible target. Where inflation expectations are strongly rooted to the inflation target even though real inflation deviates from the target, the Phillips long-term curve has not been vertical. In 1997-2011, Sweden's annual inflation projection was 2 percent close to the inflation target, though real inflation fell 0.6 percentage points short of the target. The estimates reported indicate that the Phillips long-run curve slope is approximately 0. 75. Then the real unemployment rate was about

0.8 percentage points higher than the target for average inflation. This reflects a substantial cost of unemployment to weaken the inflation target.

Food inflation hurt poorer than wealthy, because poor people spend more on food than wealthy people. However, Hanif (2012) observed a Pakistan's food inflation. The paper argued that rising global food and crude oil prices led to higher food inflation in Pakistan in 2008. In Pakistan, global food inflation has caused food inflation. However, the spread of food inflation in Pakistan was lower than non-food inflation. The rate of food inflation in Pakistan was found to be half the world's observed. Compared to the persistence of global food inflation, there is no evidence of persistence in Pakistan of food inflation. However, most of the products produced in the food group showed persistence of inflation. Comparing food inflation and labor incomes after the 2008 global commodity price shock, the poor have been found to be disadvantage.

Regarding to Onour (2014) he observed Modeling Inflation Dynamics in Sudan from 2008-2013. The paper mainly seeks to construct a macroeconomic model that portrays the domestic inflation dynamics of a conflict economy hampered by a parallel exchange market as well as internal political conflicts. To study domestic inflation's sensitivity to macro variables using a time-limiting estimate approach based on monthly data collected from Sudan from January 2008 to December 2013. Though government spending is the key mover of domestic inflation, Sudan's economic vulnerability to external shocks is shown by its increasing position in the parallel foreign exchange market and imported inflation. Significantly, the prediction of the model's domestic inflation levels is about 22 percent higher than what was officially announced. In order to control inflation, the production of state currencies must be controlled and a more flexible official foreign-exchange policy adopted.

Furthermore, this section of the study is going to reveal information and details about the impact of population on economic growth. Population growth may affect the economic performance. According to Furuoka (2013) stated economic development and population in Indonesia. Long term population and economic growth relationships are an

important research subject in economic growth. However, there was no agreement about whether the relationship was positive or negative after decades of research. The paper chose Indonesia as a case study. The research examined the population-income relationship using a linear cointegration test and a non-linear cointegration test. The results indicated a long-run correlation between the population and the actual per capita income of Indonesia. The causality test also found that Indonesia's population increase has been triggered unidirectionally by economic development, but not vice versa. Such findings show that the economy in Indonesia is population-driven. In other terms, Indonesia may be a population-induced development case in which a fast population increase boosts economic growth. Moreover, Thornton (2001) observed long-term population among per capita GDP association in seven Latin American countries in much of the 20th century is explored by using unit root measures, Johansen maximized likelihood methods, and Granger causality tests in the setting of the one-step error correction model. The findings revealed that there were no long-term associations, and that population increase does not induce GDP growth per capita or is induced by it. Additionally, Tsen and Furuoka (2005) stated the relationship between Asia's Population and Economic Growth. The key purpose of this research is to analyze the connection between population and economic development in Asian economies. Methods of cointegration typically indicate that in the long run there is no associations between economic growth and population Nevertheless, the analysis found that there is bidirectional Granger causality for Japan, Korea, and Thailand between population and economic development. Granger population has been observed in China, Singapore and the Philippines to impact economic growth and not vice versa. Granger's economic rise affects the population of Hong Kong and Malaysia and not vice versa. There is no proof that Granger is causal to Taiwan and Indonesia among economic development and population. Overall, population-to-economic growth relationship is not straightforward. Growth of population can be helpful or detrimental to economic growth and economic growth can have an effect on population growth. Nevertheless, Becker, Glaeser and Murphy (1999) investigated Population and Economic Growth. Despite a few famous examples, economists and others agree that the larger population reduces per capita income by diminishing returns. However, there is little empirical evidence that the larger

population lowers per capita incomes in more advanced economies. This research examined both negative and positive impact on the productivity of the population. The paper argued that population may be reduced productivity because of traditional decreasing returns from intensified land use and other natural resources. However, the study indicated that larger populations promotes more specialization and increased technology investments, partly mediated by larger and more important towns. The net correlation between higher population and per capita income depends therefore on whether inductions of human capital and the diffusion of information are stronger than decreasing returns on natural resources. The potential value of increasing population to returns in a world in which the population was rising rapidly supported a revision of the relationship between per capita income and population. And that was the purpose of the major study behind this publication in this paper.

On the other hand, Ogunleye, Owolabi and Mubarak (2018) examined Nigeria's population and economic growth. This study examined the impact of population growth on Nigeria's economic development between 1981 and 2015. Ordinary least squares regression was used to analyze data in this study. The study findings shown that population growth has a significant and positive impact on Nigeria's economic development. Additionally, Lucian (2017) have been studied population decline, labor force changes and GDP growth. The population of Romania is facing a generational decline and a change in population structure, because older generations are starting to move to the top of the age pyramid. These transitions follow a reduction in economic growth due to a decline in population, decreased productivity, a lower savings rate and smaller investments. Looking at Romania's labor market, it is clear that it is shrinking, with a large portion of the workforce entering retirement and a lack of jobs replacing them. But this reality has not yet attained the constantly growing Romanian economy. To better explain this trend, a closer look at labor forces helps to understand how labor force leads to constant economic growth by using the employment to population ratio. In terms of population size and GDP growth. The predicted results would be that the population's steady work community would sustain economic growth, which has become more skilled and efficient over time, leading to a steady increase over GDP.

Benuyenah and Phoon (2014) observed productivity, population and poverty by using a theoretical assumption of economic development in Vietnam. The paper attempted to define sustainable variables for economic growth in Vietnam, and the report proposes a parsimonious and useful model for the current economic climate. It's just a 3P setup. The basic model of growth describes three key factors for economic development: population, property and productivity. The study argues that these factors are critical for sustainable growth in Vietnam. Regarding to Degu (2020) examined the nexus between Ethiopia's economic growth and population. For researchers, the relation between economic growth and population has become of the greatest importance. But economists and scholars have no consensus about the relationship between population and economic development. This research explored the population economic growth nexus in the second most populated African country, Ethiopia, using time series data from 1981 to 2018. The long-term relationship of population and economic development has been verified by the binding check of co-integration method. According to the predictions of the ARDL model, short-term and long-term population growth has considerable and negative effects on economic growth. In the short and long term, GDP growth also has a positive and significant impact on population growth.

On the other hand, the economic literature has extensively analyzed the developmental effect of foreign aid. The literature on the efficiency of bilateral foreign aid flows into sub-Saharan Africa concentrates mainly on one dimension of donor aid provision, the channeling of aid to central government beneficiaries. According to Urtuzuastigui (2019) extended aid efficiency literature by breakdown of the bilateral aid flow into government and bypass aid and assessed its relative effect on economic development. The findings also reinforce the argument that the relationship between government to government funding and socioeconomic growth depends on recipient institutions' performance. In particular, the study found that there is a positive correlation between government to government assistance and growth in countries with good institutional status. Across the vast majority of recipient developing countries, foreign assistance was seen as an integral part of promoting economic growth for decades. Sothan (2018) tried to investigate the growth effect of foreign aid from

Cambodia during the period 1980–2014. The study demonstrated empirically that openness of trade has a positive effects on growth in both the short and long term, investment has made a positive contribution to long-term development, and foreign aid only has a positive impact on development in the short term. On the contrary, it has a negative impact on long-term investment and growth. This could suggest that long-term dependence on foreign aid does not make a positive contribution to Cambodia's investment and growth.

Renewed political interest in aid issues was created by the 2000 Millennium Summit. World leaders have recognized that achieving the Millennium Development Goals depends on increased shipments of resources and enhanced aid productivity through better donor coordination. Among other things, the UN Consensus of Monterrey proposed increased aid. With respect to Veiderpass (2015) a balanced panel of 89 middle and low income countries was studied over an 11-year period in five different geographic categories. In the analysis, a new methodology was proposed, which evaluated country output with the productivity theory as an indicator, introduced the non-parametric Malmquist productivity index, then connected the success of this country with the amount of foreign aid received. However, consensus has always eluded scientists and policymakers. Despite multiple research, little evidence has been found of any positive effects on the long-term growth of poor countries. Nevertheless, consensus has always eluded scientists and policymakers. Despite numerous studies, the long-term growth of the poor countries has shown little positive effect. Fayissa and El-Kaissy (1999) evaluated the key role of foreign aid in LDC economic growth at that point and examined the nature of its use, also using average cross-section information of eighty countries for the years 1971 to 199, in countries which relied heavily on foreign aid, other economic growth sources such as capital, raw labor, technological change and the degree of political and civil liberties. Foreign assistance has been shown to have a statistically positive impact on economic growth in developed countries and a negative but statistically negligible effect on economic growth is attributed to lack of political and personal freedoms.

Decades of international aid studies have provided inconclusive results on economic development in less developed countries. A variety of empirical impediments have plagued research into this literature. Those include estimation and endogeneity problems, fragmented control sets that can be linked with external support and economic development, including institutional quality, and conflicts with the related econometric methodology. Rahnama, Fawaz and Gittings (2017) another problem was highlighted, the heterogeneous impact of external assistance on development in least developed countries. Although early work empirically and theoretically supported the view that foreign assistance had or would have a positive economic effect in less developed countries, the following study also reported findings which were inconsistent with early studies. There is no theoretical or empirical consensus on the relationship between foreign aid and economic development in the developing world today.

In generally, foreign assistance is an important public policy tool. A variety of goals including economic growth were promoted by donors, democratization, stability and relief from disasters. According to Lim, Menaldo and Prakash (2015) investigated how the impact of foreign aid on environmental security in the aid recipient countries is influenced by trade and foreign direct investment. The thesis hypothesized on the superior environmental security of foreign assistance at low export receipts or FDI inflows from developing countries. Empirically, Increases in aid in a country with high export receipts and North FDI inflows could contribute empirically to the negative interaction between aid and globalization. Financial flows form an important part of the economies of developing countries. Researchers and policy-makers have not yet agreed unanimously on the relationship between FDI, remittances, ODA and economic growth. Zardoub and Abed (2019) analyzed the effect of financial flows on economic development in developed countries. Empirically, various methods were employed. In this study, a combined auto-regressive distributed panel approach was made to explore the short-term and long-term impacts of financial flows on economic development. The findings reflect a long-term relationship, as the adjustment factor correction parameter is negative and statistically important. The PMG estimator was found to be more reliable and efficient. Foreign direct investment has a negative and statistically relevant short-

term effect on economic development. However, in the long run, it's not important. On the other hand, remittances have a negative and significant impact on economic growth in the short term. In the long term, however, it isn't significant.

However, the effect of external assistance on growth has been extensively studied in economic literature over the last decade. It has been shown that the armed conflict channel has an effect on the recipient countries' economic development. Nourou (2020) the purpose of this paper was to investigate the effects of the amount of aid outside this debate by examining whether aid variability may be independent of this empirical literature. The study revealed that aid per se may have a negative, positive or no effect on conflict outbreaks, while aid uncertainty has a positive impact on conflict risk. This above result has proven robust for certain extensions of the econometric model. Therefore, aid variability is an important element in assessing the effect of aid on civil conflict risk. Several hypotheses have been proposed since the early 1950s, and empirical research on the efficacy of foreign assistance have been performed, but the topic is far from over. Although recent increases in research have concentrated on the effectiveness of foreign aid for poverty reduction, the impact of foreign aid on economic growth is the main focus of most studies. Mahembe & Odhiambo, (2019) for the period 1981-2013, 82 developing countries investigated the causal relationships between foreign aid, poverty and economic growth. The study found that foreign aid continues to converge on its long-term equilibrium course in response to increasing economic growth and poverty, and both economic growth and poverty are the source of Granger's foreign assistance.

On the other hand, Tsaurai (2018) examined whether foreign assistance financial complementarity supports economic growth in selected emerging markets through the Fully Modified Ordinary Least Squares (FMOLS) panel, with data between 1994 and 2014. While support growth and financial growth studies have been concluded, the role of production finance in the aid growth nexus is highly concerned. Is financial development a mechanism by which foreign assistance has a positive impact on economic growth? Current research has been carried out with a case study of selected

emerging markets to address these issues. The complementarity of external assistance and financial development has greatly beneficially influenced economic growth. However, the study called for policies that deepen the financial sector to allow external aid to contribute positively to economic growth to be adopted by select emerging markets.

According to Mustafa, Elshakh and Ebaidalla (2019) ARDL was used to investigate the relationship between foreign aid and economic growth in Sudan. Time series data covered the period 1980 to 2015. The results show a long-run relationship between variables. In particular, the results show that foreign aid in the form of ODA has a positive and significant long-term effect on economic growth in Sudan. However, in public institutions, the interaction between aid and corruption has a negative and substantial long-term effect on economic growth. It is interesting to note that the results show that aid is deterring short-term economic growth. This result could indicate that aid stimulates economic growth through its contributions to human capital and infrastructure improvements, both of which are long-term worthwhile. The paper ends with the importance of using aid to strengthen human capital to enhance economic development. Many studies supported and concluded that foreign aid has a negative impact on developing countries' economic growth and slows their performance. With respect to this, Siavhundu (2020) examined the controversy about foreign aid and economic growth is ancient and vague as contemporary empirics still produce mixed conclusions. Being one of the permanent recipients and dependents of external aid, Zimbabwe is involved in the debate on foreign aid and economic growth. Among several other developing nations, Zimbabwe has received regular international assistance flows. Ironically, the nation continues to fight financially, and there appears to be no clear evidence of whether such aid has had a positive impact on Zimbabwe. Using the OLS methodology, the research intended from 1991 to 2016, to establish the specific relationship between foreign aid and economic growth in Zimbabwe empirically, using the 26 year annual time series data. The results of the study showed that foreign aid has a significant negative short-term impact on economic growth. Among other potential policy options for Zimbabwe, the report recommends, to create strong institutions,

prevent foreign aid dependencies through well-organized domestic resource mobilization, appropriate community participation of donors and the accurate channeling of international aid resources into economic sectors that increase productivity and growth.

On the other hand, many studies believe that domestic investment has played a key role in the world's great economic performance. According to Bakari and Tiba (2019) investigated the impact of trade openness, FDI and domestic investment on economic growth of Asian developing countries. The aim of the paper was to investigate the effect on economic growth of 24 Asian countries, from the period 2002 to 2017 of openness, international investment inflows and domestic investment through the use of fixed and random effects models. Findings from the empirical, both the random and fixed models shown that domestic investment impacts economic growth positively. Similarly, Ahmed, Chuks, Kamaldeen and Bolaji (2018) Exploring the relationship between domestic investment, exports and imports on the economic development of Nigeria. Annual time series data were used between 1981 and 2016. In this analysis, the relationship between the variables was assessed using ARDL Model and VEC Granger Causality Test. The ARDL findings indicated that there is a positive short-run relationship between GDP and domestic investment. On the other hand, Tang and Tan (2015) investigated the relative contributions of FDI exports and domestic investment to Malaysia's economic development. This study aims at assessing, through co-integration and Granger causality tests, the role of domestic investments, FDI and exports as catalysts for economic growth in Malaysia. The research also performed time-varying regression and variance decomposition analysis in order to tackle the complexities of growth relationships. Econometric studies have shown that all the three domestic investment, foreign direct investment and export variables have a positive effect on economic growth and thus are catalyst for economic development. However, the authors argued that the impact of domestic investment is more stable than the other two determinants of growth.

However, Omri and Kahouli, (2013) The links between economic development, foreign investment and domestic capital have been studied. The goal of this paper was to analyze the economic model of the growth model system and the simultaneous equations model calculated in the Generalized Method of Moments GMM for the period 1990-2010, examining the relationship between FDI and domestic capital investment and economic growth in 13 MENA countries. The empirical findings shown the bidirectional causal relationship between domestic capital and economic growth and a unidirectional causal relationship for the country as a whole from FDI to domestic capital. Additionally, Stanciu and Mitu (2017) investigated foreign investment, public investment and economic development: in the case of Romania. In recent decades, several empirical papers on the role of both public investment and private investment in the growth cycle have been performed. The paper aimed at analyzing relationships among five macroeconomic variables in Romania's economy: gross domestic product, FDI, foreign portfolio investment, other foreign investment, and public investment using multiple regression models. The result indicated a strong relation among FDI, capital formation, state government investment and foreign portfolio investment from the multiple model of regression.

Regarding to Ntembe, Tawah and Amin (2017) they explored the contribution of public investment to Cameroon's economic development between 1977 and 2015. In assessing a modified version of the manufacturing function, ARDL approach is employed. The figures showed the co-integration of the actual gross domestic product, the population, public spending and private investment. In addition, on the basis of forecasting, public and private investment in the short and long term has a positive and significant effect on real GDP. Likewise, Meyer and Sanusi (2019) the causality analysis examined relationships in South Africa between employment, fixed capital formation and economic growth. The creation of gross capital, the main domestic investment factor, is seen as an important mechanism for stimulating macroeconomic growth. The paper examined, using South African data, the contentious issue of the causality between economic development employment and domestic investment. The typical cause of investment to economic growth theory has remained inconclusive, while the empirical

results on investment and employment growth remain largely unresolved. The research used quarterly data for the Vector Error Correction Models VECM and Johansen Cointegration period from 1995 to 2016. Empirical studies have shown that domestic investment, employment and economic development have a long-term relationship, with causality from economic growth to investment rather than reverse. The findings also show that investment has a positive long-term effect on economic development. In general, domestic investment plays important role on the economic growth. Nevertheless, Adams (2009) examined the effect of Sub-Saharan Africa's FDI and domestic investment on economic growth. The author stated that domestic investment is positive and significantly linked to economic growth both in the estimation of OLS and fixed estimation.

Last but not least, it is commonly believed that exports play an important role in production growth and economic development as a whole. With respect to Mlambo, Mukarumbwa and Megbowon (2019) has observed role in contributing to economic development of agricultural processed and unprocessed exports in South Africa. This paper showed that processed exports of agricultural commodities have a positive relationship to economic growth and agricultural exports of unprocessed have a negative relation to economic growth. This shows that exports made from agricultural products contribute greatly to economic development. The paper proposed that South Africa government should inspire and encourage investment in the sector of agricultural processed commodities. In the agricultural commodities manufacturing sector there should be further growth and expansion. Processed items are typically offered at a much higher price, which can create more earnings for South African companies. However, Zayone, Henneberry and Radmehr (2020) examined the impact on Angola's economic development of farming, manufacturing and mineral exports. They used the ARDL model to estimate the economic growth impacts of sectoral exports. The evaluation results shown that while the long-term economy growth of Angola was driven by exports from all three mineral, other non-mineral and manufacturing goods. Only exports of non-producing agricultural products and minerals have led to short-term growth.

In generally, exports are one of the most significant factors of economic growth; Similarly, Shimbov, Alguacil and Suárez (2019) export system upgrade and economic development in the countries of the Western Balkans were assessed. The results obtained indicate that export maturity in these economies has a positive and important effect on growth. According to Canbay (2020) Turkey's high-tech export effect on economic growth was explored by using the ARDL structural break test. The author targeted to examine the connection between the economic developments of Turkey's high-tech exports. The study showed that a 1 percentage rise in exports of high technology will led to increase the economic growth in the long run by approximately 0.44 percentage.

# 4 RESEARCH METHODOLOGY

This the fourth section of the study, it describes the research methodology and the data source and type of the data, the theoretical structure, the model specification and methods and the techniques used to analyze the data. It also outlines how the appropriate methodology will be developed, analyzed and interpreted.

## 4.1 Data

The study is based on time series data from 1980 to 2017 in Somalia for the entire sample period. The study will take the structural break bound testing method of Autoregressive Distributed Lag (ARDL) to examine the long-term and error correction model in order to determine whether the variables have an existing short run and long run relationship. The actual data is U.S. dollars. The data were obtained from different sources; The National Accounts Section of The United Nations Statistics Division and World Development Indicators. In the analysis, time series data estimation is used to record the dynamic behavior of the parameters and provide more efficient estimations and parameter information.

**Table 1**. Main Variables

| Variable | Measurement | Source |
|---|---|---|
| **GDPG** | GDP Annual Rate of Growth | The National Accounts Section of The United Nations Statistics Division |
| **DEBT/GDP** | Ratio of External Debt to GDP | World Development Indicator |
| **INF** | Implicit Price Deflator | The National Accounts Section of The United Nations Statistics Division |
| **GCF** | Gross capital formation | The National Accounts Section of The United Nations Statistics Division |
| **EX** | Total exports of goods and services | The National Accounts Section of The United Nations Statistics Division |
| **POP** | Total Population | World development indicator |
| **FAID** | Net official development assistance and official aid received | World development indicator |

### 4.2 Theoretical Framework and Model specification

The theoretical basis for the study include both the Augmented Solow model and the endogenous growth model of the economic growth equation, which seeks to demonstrate the effect of external debt on Somalia's economic growth. As Solow formulation indicates, economic growth is a function of accumulation of labor expansion, capital and exogenous factors, technological progress which make physical

capital and labor more productive. The basic model specification is therefore presented as following:

$$Y = y(K, L) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where y, L and K are measures of output, labor and capital. Respectively, Cunningham (1993) Observed that debt burden could be seen as a discussion on labor and capital productivity in a way similar to the inclusion of exports in the function of production. After incorporating debt burden as a new variable, the growth model can then be demonstrated as following:

$$Y = f(= K, L, DB,) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where Y is a proxy for economic growth, K is Capital stock, L is Labor force, and DB is debt burden.

Cunningham (1993) model assumed that the role of output consists solely of physical capital and labor. As Romer (1996) pointed out, For growth, physical capital is important, but human capital is essential. Karagöl (2002) argued that the model is simply concluded that there is no existence of human capital. So that, observing the correlation between the debts burden of Turkey and GNP. As human capital consists of knowledge, abilities, skills and experience of specific workers, human capital is included in the production method as a new variable. Therefore, the model of the equation for economic growth can be reflected as following:

$$Y = f(K, LF, H, DS) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where Y is GNP, K is Capital stock, LF is Labor force, H is Human Capital and DS is debt service

In order to identify the influence of external debt on Somalia's economic growth by making a slight modification, the paper adopts a modified version of Karagöl (2002) and specifies four empirical models as following: Equation (4) can be restated as follows:

Model 1

$$GDPG_t = C_0 + \alpha_1 \text{DEBT/GDP}_t + \varepsilon_t \ldots\ldots\ldots\ldots \quad (4)$$

Where GDPG is GDP Growth rate, DEBT/GDP is Ratio of External Debt to GDP and $\varepsilon$ is error term.

In order to clarify the impact of external debt on Somalia's economic growth, the model is included export and population as a control variables. Equation (5) can be reformed as following:

Model 2

$$GDPG_t = C_0 + \alpha_1 \text{DEBT/GDP}_t + \alpha_2 EX + \alpha_3 POP + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots \quad (5)$$

Where GDPG is GDP Growth rate, DEBT/GDP is Ratio of External Debt to GDP, EX is Export, POP is Population and $\varepsilon$ is error term.

Equation (5) can be updated as follows to explain the effect of external debt on economic growth of Somalia with other relevant control variables of Inflation and Foreign Aid:

Model 3

$$GDPG_t = C_0 + \alpha_1 DEBT/GDP_t + \alpha_2 EX + \alpha_3 POP + \alpha_4 INF + \alpha_5 FAID + \varepsilon_t \ldots\ldots\ldots \quad (6)$$

Where GDPG is GDP Growth rate, DEBT/GDP is Ratio of External Debt to GDP, EX is Export, POP is Population, INF is Inflation, FAID is Foreign Aid and $\varepsilon$ is error term.

In here, gross capital formulation is included in the model to determine the impact of external debt on economic growth. So the fourth and final model of this paper is expressed as following:

Model 4

$$GDPG_t = C_0 + \alpha_1 DEBT/GDP_t + \alpha_2 EX + \alpha_3 POP + \alpha_4 INF + \alpha_5 FAID + \alpha_6 GCF + \varepsilon_t \ldots\ldots \quad (7)$$

Where GDPG is GDP Growth rate, DEBT/GDP is Ratio of External Debt to GDP, EX is Export, POP is Population, INF is Inflation, FAID is Foreign Aid, GCF is Gross Capital Formation and $\varepsilon$ is error term.

ARDL methodology includes the bound F-test for conintegration. The ARDL method is a technique involving two steps. To examine the long term cointegration presence, equation (7) is re-arranged in the ARDL framework as an unrestricted Error Correction Model (ECM) as an equation (8):

$$\Delta GDPG_t = C_0 + \alpha_1 GDPG_{t-1} + \alpha_2 DEBT/GDP_{t-1} + \alpha_3 EX_{t-1} + \alpha_4 POP_{t-1} + \alpha_5 INF_{t-1} + \alpha_6 FAID_{t-1} + \alpha_7 GCF_{t-1} + \sum_{t-1}^{n} \alpha_1 \Delta GDPG_{t-1} + \sum_{t-1}^{n} \alpha_2 \Delta DEBT/GDP_{t-1} + \sum_{t-1}^{n} \alpha_3 \Delta EX_{t-1} + \sum_{t-1}^{n} \alpha_4 \Delta POP_{t-1} + \sum_{t-1}^{n} \alpha_5 \Delta INF_{t-1} + \sum_{t-1}^{n} \alpha_6 \Delta FAID_{t-1} + \sum_{t-1}^{n} \alpha_7 \Delta GCF_{t-1} + \varepsilon_t \quad \ldots\ldots\ldots (8)$$

Where delta $\Delta$ is the difference operator, and represents the short-term dynamics. Long-term relationships are measured along with variables by the parameters attached to each. Short-run error correction model is used to determine short-run dynamics and to check long-run coefficient robustness with regard to equation (9). It is stipulated as shows in equation (9):

$$\Delta GDPG_t = \sum_{t-1}^{n} \alpha_1 \Delta GDPG_{t-1} + \sum_{t-1}^{n} \alpha_2 \Delta DEBT/GDP_{t-1} + \sum_{t-1}^{n} \alpha_3 \Delta EX_{t-1} + \sum_{t-1}^{n} \alpha_4 \Delta POP_{t-1} + \sum_{t-1}^{n} \alpha_5 \Delta INF_{t-1} + \sum_{t-1}^{n} \alpha_6 \Delta FAID_{t-1} + \sum_{t-1}^{n} \alpha_7 \Delta GCF_{t-1} + ECM_{t-1} + \varepsilon_t \quad \ldots\ldots\ldots (9)$$

Where GDPG is GDP Growth rate, DEBT/GDP is Ratio of External Debt to GDP, EX is Export, POP is Population, INF is Inflation, FAID is Foreign Aid, GCF is Gross Capital Formulation, ECM is Error Correction Model and $\varepsilon$ is error term.

## 4.3 Method of Estimation

### 4.3.1 Descriptive statistics

Descriptive statistics**:** In an experiment, the essential characteristics of the results are represented by descriptive statistics. Simple of sample summaries and measurements are given. They provide the basis for almost every quantitative data analysis and basic graphical analysis. The descriptive analysis reveals the mean, minimum and maximum. Price is the cumulative average and default variance.

### 4.3.2 Unit Root Test

The first step is to examining unit root test, to test the data stationary is checked through Phillips-Perron and Augmented Dickey Fuller test are applied to trend and intercept. The null hypothesis for PP and ADF was that the series was non-stationary, while the series was stationary as the alternative hypothesis.

### 4.3.3 Testing Correlations

The correlation matrix explores the direct relationship between variables, which also shows the multi-linearity problem. The correlation matrix is based on the correlation coefficient; if the two variables are exactly positive, the correlation will be 1.0. When the two variables have an absolutely negative linear association, the zero coefficient of correlation implies that there is no linear relationship between the variables.

## 4.4 Autoregressive Distributed Lag ARDL Method

According to Pesaran, Shin and Smith (2001) The ARDL testing method enables long-term relationships between variables to be analyzed. The cointegration long run and

short run of the ARDL methods are estimated and both long run and short-run elasticity is derived, namely the ARDL equivalent of the ECM.

## 4.5 Diagnostic test

### 4.5.1 Normality Test

Consistency is a property of the point estimator that falls around a sample as the size of the sample becomes big, basically it tells us nothing about the sample size distribution, and it's needed a way of estimating and developing this hypothesis for the study estimators.

$H_1$ Data is not normally distributed

$H_2$ Data is normally distributed

### 4.5.2 Heteroscedasticity

The research also investigates whether the desired assumption of homoscedasticity holds. The existence of heteroscedasticity is a major concern in the application of regression analysis. Heteroscedasticity indicates when the standard deviations of a variable are not constant and tracked over a fixed period of time. So if the null hypothesis is rejected. Then conclusion would be that the model have a heteroscedasticity problem.

### 4.5.3 Autocorrelation

Autocorrelation refers to an interaction between past and future beliefs in a sequence between occasions. Autocorrelation is often commonly referred to as the "lagged correlation or serial correlation", referring to the association of a time-set number members.

## 5. EMPIRICAL RESULT AND DISCUSSION

This chapter addresses the relationship and empirical results between economic growth and external debt in Somalia as defined in the chapter on research methodology. Econometric tools were used by the researcher such as descriptive statistics, correlation matrix, unit root test, ARDL model and diagnostic tests and the linkage among growth and foreign debt was observed. Taking all findings from various models into account.

**Table 2.** Descriptive Statistics

| Variables | N | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| **GDPG** | 38 | 1.15 | 5.53 | -21.00 | 10.09 |
| **DEBT/GDP** | 38 | 2.02 | 0.67 | 1.15 | 4.19 |
| **EX** | 38 | 11.74 | 13.08 | 31.65 | 53.35 |
| **POP** | 38 | 8.57 | 2.34 | 4.80 | 13.42 |
| **INF** | 38 | 118.12 | 55.22 | 49.37 | 216.40 |
| **FAID** | 38 | 523.00 | 4.0 | 81.18 | 1.76 |
| **GCF** | 38 | 2.52 | 1.32 | 1.4 | 5.2 |

Table 2 provides descriptive statistics showing the average maximum, minimum and mean. The overall mean value of the highest average and standard deviation. This statistics show that average GDP growth in Somalia is 1.15 million US Dollar. In 2017, overall Somalia's economic growth increased by an estimated 2.3 percentage, according to The National Accounts Section of The United Nations Statistics Division. Over this period, the highest GDP growth is 10.09 million US Dollar. According to the World Bank classification, Somalia's economic growth is driven by greater economic confidence, reforms and political stability.

The result shows that Somalia’s average foreign debt to GDP ratio is 2.02 million US Dollar, while the external debt reached 3.26 per cent in 2017. The highest

external debt to GDP ratio is 4.19 million US Dollar, while the lowest foreign debt is 1.15 million US Dollar. This shows that the region's foreign debt has increased over the last few decades. On the other hand, the country has an annual average export of 11.74 million US Dollar of goods and services. Exports grew by 4.01 per cent in 2017. Somalia's highest export rate during this period is 53.35 million US Dollar and its lowest is 3.16 million US Dollar. The country's exports rely primarily on livestock, bananas, charcoal, lemon and skins.

Regarding the population of Somalia has been increasing last three decades. Overall, average of population is 8.57 million and it is estimated 2.75% in 2017.
With regard to Somalia's inflation, the average inflation rate is 118.12 million US Dollar. In the economy, the overtime general price levels of services and goods has been increased. Inflation is predicted to be 1.70% in 2017. The country's highest price shock is 216.40 million US dollar and its lowest is 49.37 million US Dollar.

Regarding the foreign aid, Somalia's foreign aid has increased over the last three decades. The average increase in international aid is 523 million US Dollar, it is estimated that the foreign assistance has a huge effect on the country's economic development. Foreign aid is estimated at 48.73 percent in 2017. It shows that Somalia is one of the world's largest aid recipients. The highest total international assistance amount is 1.76 billion US Dollar and the lowest is 81.18 million US Dollar. For the gross capital formulation, gross domestic investment is totaled 252 million US Dollar. Somalia's gross capital formation rose to 298.74 million US Dollar in 2017 from 56.22 million US Dollar in 1980 and is estimated to be 4.06 percent in 2017. The highest domestic investment is 521 million US Dollar and the lowest is 13.62 million US Dollar.

**Table 3.** Correlation Matrix

| | GDPG | ED | EX | POP | INF | FAID | GCF |
|---|---|---|---|---|---|---|---|
| **GDPG** | 1 | | | | | | |
| **DEBT/GDP** | -0.38 | 1 | | | | | |
| **EX** | 0.14 | -0.10 | 1 | | | | |
| **POP** | 0.21 | -0.08 | -0.52 | 1 | | | |
| **INF** | 0.11 | -0.62 | -0.44 | 0.27 | 1 | | |
| **FAID** | 0.03 | 0.11 | -0.10 | 0.68 | -0.29 | 1 | |
| **GCF** | 0.12 | -0.49 | -0.54 | 0.57 | 0.90 | 0.03 | 1 |

**Source:** Author's analysis

The correlation analysis in table 3 has shown that gross capital formation and inflation have the highest correlation coefficient of 0.90, whereas gross capital formation and foreign aid have the lowest correlation coefficient of 0.03. In addition to foreign aid and GDP growth have the lowest correlation of 0.03. As there's no very high correlations between all independent variables. Table 2 therefore shows that there is no broad alarm about multicollinenarity.

**Table 4.** Unit Root

| | | | ADF | | PP | |
|---|---|---|---|---|---|---|
| | **Levels** | **Model** | **t-statistics** | **Prob. *** | **Adj. S-stat** | **Prob. *** |
| GDPG | At Level | | -5.789796 | 0.0002 | -5.872610 | 0.0001 |
| | 1st Difference | | -11.31490 | 0.0000 | -12.35509 | 0.0000 |
| DEBT/GDP | At Level | | -3.435055 | 0.0625 | -2.714580 | 0.2369 |
| | 1st Difference | | -5.374157 | 0.0005 | -6.123022 | 0.0001 |
| INF | At Level | | -1.597465 | 0.7747 | -1.659600 | 0.7489 |
| | 1st Difference | | -4.798566 | 0.0024 | -5.181597 | 0.0009 |
| EX | At Level | Trnd & Intcpt | -2.770039 | 0.2169 | -2.369004 | 0.3888 |
| | 1st Difference | | -5.404104 | 0.0005 | -9.008910 | 0.0000 |
| POP | At Level | | 0.242979 | 0.9972 | -0.412328 | 0.9834 |
| | 1st Difference | | -4.231192 | 0.0123 | -3.694606 | 0.0357 |
| FAID | At Level | | -0.069083 | 0.9455 | -0.971905 | 0.9358 |
| | 1st Difference | | -6.487754 | 0.0000 | -7.410683 | 0.0000 |
| GCF | At Level | | -2.227565 | 0.4611 | -2.176055 | 0.4883 |
| | 1st Difference | | -5.383858 | 0.0005 | -7.375623 | 0.0000 |

The result indicated that at level all variables are non-stationary except GDP growth is integrated at 1% significant level, which means ADF and PP tests are stationary at level series, so null hypotheses were rejected at level. Moreover, foreign debt, foreign aid, domestic investment, inflation, population and export are stationary at the first difference at 1% significant level, so all null hypotheses did not fail to reject for every test at first difference. Since the order of the integration of the variable is a mixture of I(0) and I(1), ARDL is the appropriate technique for examining cointegration among variables

**Table 5.** ARDL Long-run Result, Dependent Variable: GDPG

| Variables | M1 | M2 | M3 | M4 |
|---|---|---|---|---|
| **DEBT/GDP** | **Prob.** 0.0184 **Coefficient** -3.226375 | **Prob.** 0.0338 **Coefficient** -2.442324 | **Prob.** 0.0048 **Coefficient** -4.407825 | **Prob.** 0.0104 **Coefficient**- 4.411588 |
| **EX** | | **Prob.** 0.0432 **Coefficient** 0.000000 | **Prob.** 0.0851 **Coefficient** 0.000000 | **Prob.** 0.0411 **Coefficient** 0.000000 |
| **POP** | | **Prob.** 0.0285 **Coefficient** 0.000001 | **Prob.** 0.0000 **Coefficient** 0.000002 | **Prob.** 0.0011 **Coefficient** 0.000002 |
| **INF** | | | **Prob.** 0.0059 **Coefficient** -0.067494 | **Prob.** 0.0603 **Coefficient** - 0.094740 |
| **FAID** | | | **Prob.** 0.0003 **Coefficient** -0.000000 | **Prob.** 0.0010 **Coefficient** - 0.000000 |
| **GCF** | | | | **Prob.** 0.4194 **Coefficient** 0.000000 |
| **C** | **Prob.** 0.0091 **Coefficient** 7.734814 | **Prob.** 0.5826 **Coefficient** -2.613795 | **Prob.** 0.7159 **Coefficient** 2.454782 | **Prob.** 0.6541 **Coefficient** 3.701149 |

**Note:** M1, 2, 3 & 4 (Model 1, 2, 3 & 4).

The findings of this analysis demonstrate the negative long-term relationship of external debt to economic development, which is consistent with the theoretical projections that the rise of long-term debt raises both the debt ratio to GDP and the

interest payment, which hurts the economy. Long-term record of higher debt and debt service payments in Somalia typically increased the percentage of recurring government annual budget spending. For example, Model 4 indicates that DEBT/GDP has a long-term negative and significant relation to production growth at 5 percent level of significance. Actually, with the DEBT/GDP coefficient of -4.411588, 1% DEBT / GDP growth increase is correlated with a 4.41% decline in GDP growth. Similarly, the other three models of the study shows that the effect of foreign debt on economic growth remains negative and coefficients are slightly changing in each model. However, this high level of debt slows Somalia's economic growth. Similar results have been reported in previous study, such as Mensah, Allotey, Sarpong-Kumankoma and Coffie (2019) found that in the long run external debt has a negative effect on economic growth in Africa.

A negative relationship has been established between foreign aid and long-run economic development, which means there is no contribution of foreign aid to the long-term economic growth in Somalia. This finding is in line with several studies that show foreign aid has a detrimental effect on growth. (Moyo & Mafuso, 2017) While studying the usefulness of international assistance in developing countries on economic growth, a case study of Zimbabwe. The paper findings actually show that foreign assistance affects economic growth. There is obviously something about the early stages of the development process inhibiting the successful use of international assistance tools. The study shows that low administrative efficiency and corruption inevitably hinder the gains of foreign assistance.

The study also explores the connection between inflation and economic growth. In table 4 ARDL long-term coefficient records test results for inflation effect on developmental economics. The findings indicate that a higher inflation rate lowers Somalia's economic growth rate, in line with the arguments of (Ahmed, 2018). In the case of Somalia, however, Inflation lowers production growth. The result is consistent with a wide variety of macroeconomic models. This would mean that high inflation rates could harm the economy.

The research involves beneficial effects on productivity of the population. Population will improve productivity. However, a larger population promotes more specialization and more knowledge in investments, mediated partly by larger and more important cities. The population coefficient is thus positive and statistically meaningful at 5% level of significance. It means that growth of population will lead to higher economic growth. Therefore, the growth of population is having a major positive effect on the economic development of Somalia, making it important to contribute to the economic growth of the country. Similar earlier studies have the same results as (Ogunleye et al., 2018).

The long-term findings of this study indicate that an upward movement in exports contributes to an increase in Somalia's economic growth. With regard to the findings of this report, export is a key essential driver of economic development. The findings of this study suggest that the positive effects of exports are not huge and it can be due to the country's production sector. On the other hand, the long-term results of this study in table 5 reports that gross capital formation is insignificant, which indicates that gross domestic investment does not effect on  the economic growth of Somalia in the long run.

**Table 6.** ARDL Short-run Result, Dependent Variable: GDPG

| Variables | M1 | M2 | M3 | M4 |
|---|---|---|---|---|
| **DEBT/GDP** | **Prob.** 0.0203 **Coefficient** - 3.359811 | **Prob.** 0.0338 **Coefficient** - 2.951032 | **Prob.** 0.0041 **Coefficient** - 6.148240 | **Prob.** 0.0035 **Coefficient** - 9.734873 |
| **EX** | | **Prob.** 0.0588 **Coefficient** 0.000000 | **Prob.** 0.1002 **Coefficient** 0.000000 | **Prob.** 0.0456 **Coefficient** 0.000000 |
| **POP** | | **Prob.** 0.0407 **Coefficient** 0.000001 | **Prob.** 0.0002 **Coefficient** 0.000003 | **Prob.** 0.0015 **Coefficient** 0.000003 |
| **INF** | | | **Prob.** 0.0056 **Coefficient** - 0.094144 | **Prob.** 0.0588 **Coefficient** - 0.126966 |
| **FAID** | | | **Prob.** 0.1761 **Coefficient** - 0.000000 | **Prob.** 0.1500 **Coefficient** - 0.000000 |
| **GCF** | | | | **Prob.** 0.5739 **Coefficient** - 0.000000 |
| **ECM(-1)** | **Prob.** 0.0000 **Coefficient** - 1.041358 | **Prob.** 0.0000 **Coefficient** - 1.208289 | **Prob.** 0.0000 **Coefficient** - 1.394846 | **Prob.** 0.0000 **Coefficient** - 1.340146 |
| **Observations** | 37 | 37 | 37 | 37 |

Note: M1, 2, 3 & 4 (Model 1, 2, 3&4).

The short-term results obtained from the ARDL boundary testing approach in Table 6 indicates that there is a detrimental influence of ongoing foreign debt rises on the countries' economic growth. This suggests that Somalia's absence of sound economic policies has resulted in weak economic performance amid continued dependence on external borrowing. External debt has an inverse correlation both in the short term and in the long term. Model 4 shows that DEBT/GDP has a long-term 1% significant level and negative relationship to economic growth. The short-term size of the DEBT/ GDP coefficient is -9,734,873, which means that 1 per cent foreign debt growth leads to a decline of 9,73 per cent on economic growth, and vice versa. However, the findings are in line with Ramzan and Ahmad (2014) found that the relationship between public debt and economic growth is negative in the short run as well as in the long run.

The results show a significant short-term relation between population growth and emissions from economic development and socio-economic factors. The study showed that population density and economic growth have statistically short-term significant positive impact on economic growth as well as in long-term economic growth within the line of (Aydın, Esen, & Bayrak 2016). The short-term empirical result also shows that the export externality effect on economic growth is statistically positive and significant. Similar results have been the same as (Adegboyega, 2017). By stating that exports have positive effect on the economic growth of Nigeria.

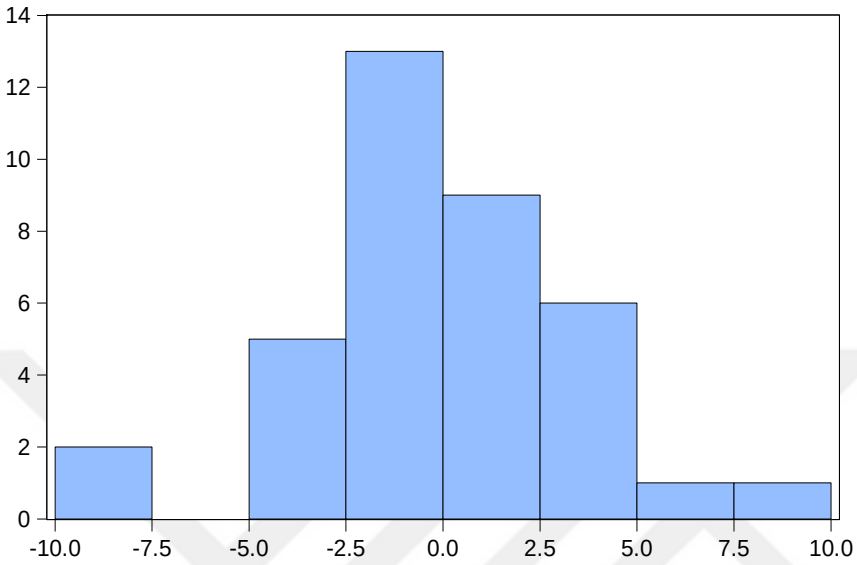
The study found that the short-term relationship between inflation and economic growth for the economy was significant and negative. This will mean that high inflation rates could damage the economy. The most significant results of this study can be summed up by saying that inflation is a global phenomenon and that inflation hurts poor people more than the rich. It was found that Somalia's inflation hurts the country's economic growth. Similar publication has the same results. However, the short-term results of the ARDL also suggest that both foreign aid and domestic investment are insignificant. In the short term, gross domestic investment and foreign aid have nothing to do with Somalia's productivity growth

**Table 7.** Diagnostic test

| | |
|---|---|
| **Serial Correlation test** | **M1**<br>**Prob.** 0.6538<br>**Prob. Chi-Square** (0.6063) |
| | **M2**<br>**Prob.** 0.6722<br>**Prob. Chi-Square** (0.6167) |
| | **M3**<br>**Prob.** 0.5547<br>**Prob. Chi-Square** (0.4537) |
| | **M4**<br>**Prob.** 0.5980<br>**Prob. Chi-Square** (0.4602) |
| **Heteroskedasticity test** | **M1**<br>**Prob.** 0.7581<br>**Prob. Chi-Square** (0.7498) |
| | **M2**<br>**Prob.** 0.6020<br>**Prob. Chi-Square** (0.5896) |
| | **M3**<br>**Prob**. 0.9300<br>**Prob. Chi-Square** (0.9274) |
| | **M4**<br>**Prob.** 0.5746<br>**Prob. Chi-Square** (0.5616) |

The findings indicate that null hypothesis of all models provided for every test cannot reject. There is therefore no problem with serial correlations and the functional form test confirms that the model is well defined. Likewise the errors are normally distributed, and the model does not have a problem with heteroskedasticity.

**Table 8.** Normality test




| Series: Residuals | |
|---|---|
| Sample 1981 2017 | |
| Observations 37 | |
| Mean | 8.16e-16 |
| Median | -0.190302 |
| Maximum | 8.912005 |
| Minimum | -9.833464 |
| Std. Dev. | 3.602907 |
| Skewness | -0.403143 |
| Kurtosis | 4.356000 |
| Jarque-Bera | 3.836954 |
| Probability | 0.146830 |

On the other hand, Table 7 shows the normality test distribution to determine normality, this research methodology is accurate and it shows the data is normally distributed.

## 6. CONCLUSION AND POLICY IMPLICATIONS

There are many studies with contradictory findings on the impact of external debt on economic development. Some studies have shown a positive relation between these variables and economic development, while other studies have shown a negative relationship. The analysis found that in empirical literature, external debt and official development assistance as sources of financing were included. The study examined the effect of external debt on Somalia's growth economy, including other variables such as gross domestic investment, foreign aid, inflation, export and population growth by using the ARDL model as control variables.

In general, external debt can have positive and negative effects on economic development, which depend on the manner in which the country and its government use it to develop a productive infrastructure and motivate its human capital to avoid any waste. Somalia faces many problems under economic conditions. Successive governments have accumulated massive foreign debts to finance national development programs in an effort to use up the available domestic resources. The main objective of this study is therefore to examine the effect of external debt on Somalia's economic development. The major contribution of this study is that, there's a very few researchers who considered this macroeconomic indicator of external debt. This thesis explores the consequences of foreign debt.

To achieve the goal, the long-term and short-term co-integration of the autoregressive distributive lag (ARDL) modeling method was used during the period from 1980 to 2017. The following findings are drawn on the basis of the econometric analysis and the results of the research. The long-term and the short-term coefficients of external debt variable is negative and highly significant, this shows that the high level of Somalia's external debt poses huge challenges to the country's economy. Because these debts are used for non-productive businesses and the funds are not always channeled to the real productive industries. In fact, a large portion of foreign debt would repay certain debts instead of increasing capital investment in the country and this leads to lower

capital returns and thus lower investment and economic growth. Generally, this means that conventional external debt perception is generally true and any increase in external debt would exacerbate Somalia's economic growth. It is also important to cut the country's external debt. The short-term dynamic ARDL Regression results also show that the adjustment speed of any disequilibrium to long-term balance or the estimated coefficient of equilibrium error correction is -1.041358 and it is strongly significant, this indicating around 100 percent annual equilibrium adjustment in the long run.

External debt has a critical effect on economic development, since the negative relationship between international debt and economic growth in Somalia shows inefficient use of external funds. Inefficient and unsuitable use of funds in the country could lead to slow change or investments with low return programs, high interest and huge external debt repayments and corruption could all be used as an example of the opposite relationship.

On the other hand, the rationale behind Somalia's foreign aid experience is that assistance is far from unqualified bonuses given by well-wanted donors. In generally, nowadays, the aid process is so heavily burdened with self-interest motivations by the donor countries that it is not clear who is supporting whom. The study shows that the leaders of Somalia in the past not only failed to fully understand the constraints of foreign assistance, they were not thought clearly, to underestimate the capacity of the nation to absorb large amounts of aid efficiently and productively at a time when the country lacked an efficient management system and other conditions needed for a successful economic take-off, in particular its expenditure the government should pay more attention to the profile of debt management. Borrowed funds should be tied to productive ventures and invested in self-liquidating construction projects that invest in critical infrastructures that promote certain sectors of the economy's growth rather than social consumption.

The government and policymakers need to be aware of the level of external debt. Since reasonable borrowing could fuel economic growth both by raising the capital and

by increasing the productivity level. Government and policymakers must try speedily to enact structural reforms aimed at reforming the public sector and sustainability of the external debt. Since reliance on external resources is both dangerous and unstable, the government must mobilize its own resources and adopt policies to reduce its external debt exposure, in order to reduce its undesirable economic effects. In other words, to prevent further debt accumulation, the government should expand the economy to generate more income and to increase domestic financing.

## REFERENCES


Abdelaziz, H., Rim, B., & Majdi, K. (2019). External Debt, Investment, and Economic Growth. *Journal of Economic and Financial Sciences*, *7*(4), 493–668.

Abuzaid, L. E. M. (2011). *External debt , economic growth and investment in Egypt , Morocco and Tunisia. May*, 1–209.

Ada, M. S., & Kharusi, S. Al. (2018). *NExternal Debt and Economic Growth: The Case of Emerging Economyo Title*. *33*(1), 1141–1157.

Adams, S. (2009). Foreign Direct investment, domestic investment, and economic growth in Sub-Saharan Africa. *Journal of Policy Modeling*, *31*(6), 939–949. https://doi.org/10.1016/j.jpolmod.2009.03.003

Addison, T., Billon, P. Le, & Murshed, S. M. (2001). *Finance in Conflict and Reconstruction*.

Addison, T., Geda, A., Billon, P. Le, & Murshed, S. M. (2005). Reconstructing and Reforming the Financial System in Reconstructing and Reforming the Financial System in Conflict and ' Post-Conflict ' Economies. *Journal of Development Studies*, *February*. https://doi.org/10.1080/00220380500092861

Adegboyega, R. R. (2017). The Impact of Export and Import on Economic Growth in Nigeria: Evidence from VAR Approach. *Journal of Management and Social Sciences*, *9*(1), 66–81.

Afzal, M., & Arshed, M. G., Sarwar, K. (2013). *Education , Health , Food Inflation and Economic Growth in Pakistan 51*(2), 109–138. *URL : https://www.jstor.org/stable/24398832*.

Ahmed, A. O. (2018). Re-Examining the Relationship between Inflation, Exchange Rate

and Economic Growth in Nigeria. *International Journal of Accounting Research*, *3*(5), 24–29. https://doi.org/10.12816/0048648

Ahmed, A. O., Chuks, E., Kamaldeen, F. S., & Bolaji, Y. A. (2018). EuroEconomica The Relationship between Import , Export , Domestic Investment and Economic Growth in Nigeria. *Euro Economica*, *3*(3).

Aid Coordination Unit. (2017). *Aid Flows in Somalia: Analysis of aid flow data*. *April*, 30. http://so.one.un.org/content/unct/somalia/en/home/presscenter/Publications/aid-flows-in-somalia--analysis-of-aid-flow-data.html

Akpinar, P. (2013). Turkey's Peacebuilding in Somalia: The Limits of Humanitarian Diplomacy. *Turkish Studies*, *14*(4), 735–757. https://doi.org/10.1080/14683849.2013.863448

Akram, N. (2011). Impact of Public Debt on the Economic Growth of Pakistan. *The Pakistan Development Review*, *50*(4). https://www.jstor.org/stable/23617723

Ali, R., & Mustafa, U. (2012). *External Debt Accumulation and Its Impact on Economic Growth in Pakistan*. *51*(4). https://www.jstor.org/stable/23734739

Ang, A., Brière, M., Signori, O. (2012). Inflation and Individual Equities. *Financial Analysts Journal, Vol. 68, No. 4 (July/August 2012), pp. 36-55.*

Aydın, C., Esen, Ö., & Bayrak, M. (2016). Inflation and Economic Growth: A Dynamic Panel Threshold Analysis for Turkish Republics in Transition Process. *Procedia - Social and Behavioral Sciences*, *229*, 196–205. https://doi.org/10.1016/j.sbspro.2016.07.129

Azeez, B., Aluko, O. A., & Oladapo, F. (2015). *External Debt Or Foreign Direct Investment : Which Has Greater Significant Economic Impact on*. *11*(19), 185–196.

Bakari, S., & Tiba, S. (2019). The Impact of Trade Openness, Foreign Direct Investment and Domestic Investment on Economic Growth: New Evidence from Asian Developing Countries. *The Economic Research Guardian – Vol. 9(1)2019*, *9*(2), 46–54.

Becker, G. S., Glaeser, E. L., & Murphy, K. M. (1999). *American Economic Association Population and Economic Growth*. *89*(2). https://www.jstor.org/stable/117096

Benuyenah, V., & Phoon, M. (2014). *Population, property and productivity: a theoretical prediction of economic growth in vietnam*. *8*(1), 94–107.

Canbay, Ş. (2020). Investigation of the Effect of Turkey'S High-Tech Exports on the Economic Growth Using the Structural Break Ardl Bounds Testing. *Elektronik Sosyal Bilimler Dergisi*, *74*, 855–868. https://doi.org/10.17755/esosder.657480

Casares, E. R. (2015). *A Relationship between External Public Debt and Economic Growth*. *30*(2), 219–243.

Chaudhry, I. S., Ismail, R., Farooq, F., & Murtaza, G. (2015). *Monetary Policy and its Inflationary Pressure in Pakistan*. *53*(2), 251–268.

Checherita-Westphal, C., & Rother, P. (2011). The Impact of Government Debt on Growth: An Empirical Investigation for the Euro Area. *Revue Economique*, *62*(6), 1015–1029. https://doi.org/10.3917/reco.626.1015

Ciccarelli, M., & Mojon, B. (2010). Global Inflation. T*he Review of Economics and Statistics, Vol. 92, No. 3 (August 2010), pp. 524-535lopments*. *92*(3), 524–535.

Somalia NGO Consortium. (2018). *Debt Cancellation for Somalia*. *October*, 27.

Cunningham, R. T. (1993). The effects of debt on economic growth in heavily indebted nations. In *Journal of Economic Development* (Vol. 18, Issue 1, pp. 115–126).

Degu, A. A. (2020). *The Nexus Between Population and Economic Growth In Ethiopia : An Empirical Inquiry*. *1798*. https://doi.org/10.25103/ijbesar.123.05

Fayissa, B., & El-Kaissy, M. I. (1999). Foreign aid and the economic growth of developing countries (LDCs): Further evidence. *Studies in Comparative International Development*, *34*(3), 37–50. https://doi.org/10.1007/BF02687626

Furuoka, F. (2013). Population and Economic Development in Indonesia : A Revisit With New Data and Methods. *Source : Acta Oeconomica , Vol . 63 , No . 4 ( December 2013 ), pp . 451-467 Published by : Akadémiai Kiadó Stable URL : https://www.jsto*. *63*(4), 451–467.

Gachunga, M. J., & Kuso, Y. (2018). The Impact of External Debt on Economic Growth in Ghana: A Cointegration Analysis. *Journal of Science and Technology (Ghana)*, *26*(3), 57–63. https://doi.org/10.4314/just.v26i3.33013

Genç, M. C., & Tandoğan, D. (2015). *The Impact of External Debt on Economic Growth in Turkey: An ARDL Bounds Testing Approach. 11*(1).

Hanif, M. N. (2012). A Note on Food Inflation in Pakistan. *Source : Pakistan Economic and Social Review , Vol . 50 , No . 2 ( Winter 2012 ), pp . 183-206 Published by : Department of Economics , University of the Punjab. URL : https://w*. *50*(2), 183–206.

Hasanov, M., & Omay, T. (2011). *The Relationship Between Inflation , Output Growth , and Their Uncertainties : Evidence from Selected CEE Countries*. *Emerging Markets Finance & Trade, Vol . 47 , Supplement 3 : Economies of Central and*. *47*(May).

Tsen, W. H., & Furuoka, F. (2005). The Relationship between Population and Economic Growth in Asian Economies. *ASEAN Economic Bulletin, Vol. 22, No. 3 (December*

*2005), pp. 314-330.*

Hwang, J.-T., Chung, C.-P., & Wang, C.-H. (2020). *Debt Overhang, Financial Sector Development and Economic Growth*. *51*(1), 13–30. https://www.jstor.org/stable/43296230

International Crisis Group ICG. (2012). *Assessing Turkey ' s Role in Somalia*. *October*.

Kar, D., & Cartwright-Smith, D. (2006). Illicit Financial Flows from Developing Countries: 2002-2006. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1341946

Karagöl, E. (2002). The Causality Analysis of External Debt Service and GNP : The Case of Turkey. *Central Bank Review*, 39–64.

Lim, S., Menaldo, V., & Prakash, A. (2015). Foreign aid, economic globalization, and pollution. *Educational Technology Research and Development*, *57*(5), 613–627. https://doi.org/10.1007/sl

Lin, S., & Yef, H. (2012). What to Target ? Inflation or Exchange Rate. Southern Economic Journal, Vol. *78* (4), pp. 1202–1221.

Lucian, S. A. (2017). *Population Decline, Labor Force Changes and GDP Growth*. *I*, 200–206.

Mahembe, E., & Odhiambo, N. M. (2019). Foreign aid, poverty and economic growth in developing countries: A dynamic panel data causality analysis. *Cogent Economics and Finance*, *7*(1). https://doi.org/10.1080/23322039.2019.1626321

Mariscal, R., Powell, A., & Tavella, P. (2018). *On the Credibility of Inflation-Targeting Regimes in Latin America*. *18*(2), 1–24.

Mensah, Lord, Allotey, D., Sarpong-Kumankoma, E., & Coffie, W. (2019). What debt threshold hampers economic growth in Africa? *International Journal of Development Issues*, *19*(1), 25–42. https://doi.org/10.1108/IJDI-03-2019-0056

Meyer, D. F., & Sanusi, K. A. (2019). *A Causality Analysis of the Relationships Between Gross Fixed Capital Formation, Economic Growth and Employment in South Africa*. *64*(1), 33–44. https://doi.org/10.2478/subboec-2019-0003

Ministry of Planning, Investment and Economic Development. (2019). *Aid Flows in Somalia.*

Mlambo, C., Mukarumbwa, P., & Megbowon, E. (2019). An investigation of the contribution of processed and unprocessed agricultural exports to economic growth in South Africa. *Cogent Economics and Finance*, *7*(1), 1–17. https://doi.org/10.1080/23322039.2019.1694234

Moyo, L., & Mafuso, L. T. (2017). The effectiveness of foreign aid on economic development in developing countries: A case of Zimbabwe (1980-2000). *Journal of Social Sciences*, *52*(1–3), 173–187. https://doi.org/10.1080/09718923.2017.1305554

Mubarik, M. S. (2015). *Human Capital and Performance of Small & Medium Manufacturing Enterprises: A Study of Pakistan*. *43*(8), 1–223.

Muritala, T. A. (2012). The impact of external debt on economic growth in Nigeria. *Igarss 2012*, *8*(1), 1–5. https://doi.org/10.1007/s13398-014-0173-7.2

Mustafa, M. E., Elshakh, M. M., & Ebaidalla, E. M. (2019). Does foreign aid promote economic growth in Sudan? Evidence from ardl bounds testing analysis. *Journal of Economic Cooperation and Development*, *40*(3), 115–140.

Nor, M. I., Masron, T. A., & Alabdullah T. T. Y. (2017). Does the observed value of

Somali shilling deviate from its predicted value? *Journal of Policy Modeling*, *39*(3), 532–546. https://doi.org/10.1016/j.jpolmod.2017.03.007

Nourou, M. (2020). Foreign Aid and Development: The Civil Conflict Channel Reexamined. *International Economic Journal*, *34*(1), 1–15. https://doi.org/10.1080/10168737.2019.1663438

Ntembe, A., Amin, A. A., & Tawah, R. (2017). Analysis of public investments and economic growth in Cameroon. *Springer Science+Business Media, LLC 2017*, 591–614. https://doi.org/10.1007/s12197-017-9411-0

Ogunleye, O. O. (2018). *Population Growth and Economic Growth in Nigeria : An Appraisal*. *5*(5), 282–299.

Ogunleye, O. O., Owolabi, O. A., & Mubarak, M. (2018). Population Growth and Economic Growth in Nigeria: An Appraisal. *Journal of Developing Societies*, *18*(4), 315–329. https://doi.org/10.1177/0169796X0201800402

Omodero, C. O. (2019). The Effect of Foreign Debt on the Economic Growth of Nigeria. *Management Dynamics in the Knowledge Economy*, *7*(3), 291–306. https://doi.org/10.25019/mdke/7.3.01

Omri, A., & Kahouli, B. (2013). The nexus among foreign investment, domestic capital and economic growth: Empirical evidence from the MENA region. *Research in Economics*, *68*(3), 257–263. https://doi.org/10.1016/j.rie.2013.11.001

Onafowora, O., & Owoye, O. (2017). *Impact of external debt shocks on economic growth in Nigeria : a SVAR analysis*. 157–179. https://doi.org/10.1007/s10644-017-9222-5

Onour, I. A. (2014). Modeling Inflation Dynamics in Sudan 2008-2013. *Arab Center for Research & Policy Studie. Stable URL: https://www.jstor.org/stable/resrep126.*

Panizza, U. (2008). Domestic and External Public Debt. *United Nations Conference on Trade and Development (UNCTAD), 188*.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, *16*(3), 289–326. https://doi.org/10.1002/jae.616

Qayyum, U., & Haider, A. (2012). *Foreign Aid, External Debt and Economic Growth Nexus in Low-Income Countries: The Role of Institutional Quality*. *51*(4). https://www.jstor.org/stable/23734741

Rahnama, M., Fawaz, F., & Gittings, K. (2017). The effects of foreign aid on economic growth in developing countries. *The Journal of Developing Areas*, *51*(3), 153–171. https://doi.org/10.1353/jda.2017.0066

Ramzan, M., & Ahmad, E. (2014). External debt growth nexus: Role of macroeconomic polices. *Economic Modelling*, *38*, 204–210. https://doi.org/10.1016/j.econmod.2013.12.014

Reinhart, C. M., & Rogoff, K. S. (2010). Growth in a Time of Debt. *The American Economic Review*, *100*(2), 573–578. http://www.jstor.org/stable/27805061

Romer, D. (1996). *Advanced Macroeconomics*.

Sachs, J. D. (1989). Developing Country Debt and Economic Performance. *Chemistry of Heterocyclic Compounds*, *25*(3), 319–325.

Saungweme, T., & Odhiamboa, N. M. (2020). The impact of domestic and foreign public debt on economic growth: Empirical evidence from Zimbabwe. *The Impact of Domestic and Foreign Public Debt on Economic Growth: Empirical Evidence from Zimbabwe*, *73*(1), 77–106.

Shahzad, F., Zia, A., Ahmed, N., Fareed, Z., & Zulfiqar, B. (2014). Impact of External Debt on Economic Growth: a Case Study of Pakistan. *Russian Journal of Biological Research*, *2*(2), 2133–2141. https://doi.org/10.13187/er.2014.89.2133

Chaudhry, I. Sh., Ayyoub, M., & Imran, F. (2013). Does Inflation Matter for Sectoral Growth in Pakistan? An Empirical Analysis. *Department of Economics, University of the Punjab*, *51*(1), 71–92.

Shimbov, B., Alguacil, M., & Suárez, C. (2019). Export Structure Upgrading and Economic Growth in the Western Balkan Countries. *Emerging Markets Finance and Trade*, *55*(10), 2185–2210. https://doi.org/10.1080/1540496X.2018.1563538

Shuaglin, L., & Kim, S. (2001). Foreign Debt and Economic Growth. *Economics of Transition*, *9*(3), 635–655.

Siavhundu, T. (2020). *Foreign Aid – Economic Growth Nexus : An Empirical Study of the Zimbabwean Case*. *IX*(Iv), 1–18.

Sothan, S. (2018). Foreign aid and economic growth: evidence from Cambodia. *Journal of International Trade and Economic Development*, *27*(2), 168–183. https://doi.org/10.1080/09638199.2017.1349167

Stanciu, C. V., & Mitu, N. E. (2017). *Foreign and Public Investment and Economic Growth: The Case of Romania*. 87–99.

Su, Z. (2020). *Why Chinese Central Bank Should Focus on Headline Inflation. Acta Oeconomica , Vol . 64 , Special Issue 2 : Organizational Innovation and Its Development Selected Papers of The 8th Annual International Conference of Organizational Innovation (2014), pp.*. *64*(2), 39–51.

Suma, D. F. (2007). *The External Debt Crisis and its Impact on Economic Growth and Investment in Sub- Saharan Africa: A Regional Econometric Approach of*

*ECOWAS Countries. May*.

Svensson, L. E. O. (2015). *T*he Possible Unemployment Cost of Average Inflation Below a Credible Target. *American Economic Journal: Macroeconomics, Vol. 7, No. 1 (January 2015), pp. 258-296. Published by : American Economic Association*

Tang, C. F., & Tan, E. C. (2015). The relative contributions of domestic and foreign direct investments and exports to Malaysia's economic growth. *Singapore Economic Review*, *60*(2). https://doi.org/10.1142/S0217590815500113

Tchereni, B. H. M., Sekhampu, T. J., & Ndovi, R. F. (2013). The impact of foreign debt on economic growth in Malawi. *African Development Review*, *25*(1), 85–90. https://doi.org/10.1111/j.1467-8268.2013.12015.x

Thornton, J. (2001). Population Growth and Economic Growth: Long-Run Evidence from Latin America. *Southern Economic Journal*, *68*(2), 464. https://doi.org/10.2307/1061606

Tsaurai, K. (2018). Complementarity between foreign aid and financial development as a driver of economic growth in selected emerging markets. *Comparative Economic Research*, *21*(4), 45–61. https://doi.org/10.2478/cer-2018-0026

Turkay, M., & Atasoy, B. S. (2019). Has inflation targeting been successful? Evidence from unit root tests. *Investigacion Economica*, *78*(308), 120–139. https://doi.org/10.22201/fe.01851667p.2019.308.69626

United Nation., & World Bank. (2013). Somalia Joint Strategy Paper for the period 2008 - 2013. *Strategy*.

Urtuzuastigui, G. A. (2019). Bilateral aid in sub-Saharan Africa: are donor delivery tactics stimulating economic growth and development? *Journal of Contemporary African Studies*, *37*(1), 128–147. https://doi.org/10.1080/02589001.2018.1541502

Veiderpass, A. (2015). *Foreign aid and productivity*. *43*(3), 249–258. https://www.jstor.org/stable/43550071

Wamboye, E., & Tochkov, K. (2016). External debt relief initiatives and economicgrowth in least developed countries. *The Journal of Developing Areas*, *50*(2), 213–229. https://doi.org/10.1353/jda.2016.0077

Wasuge, M. (2016). Turkey's Assistance Model in Somalia: Achieving Much with Little. *Heritage Institute for Policy Studies*.

Zardoub, A., & Abed, R. El. (2019). Short- and Long-Term Effects of Financial Flows on Economic Growth. *Journal of Economic Integration*, *34*(3), 498–519.

Zayone, T. I., Henneberry, S. R., & Radmehr, R. (2020). *Effects of Agricultural, Manufacturing, and Mineral Exports on Angola's Economic Growth*.

Zermeño, M. Á. T., Martínez, F. V., & Torres, V. H. (2018). Effects of inflation on financial sector performance: New evidence from panel quantile regressions. *Investigacion Economica*, *77*(303), 94–129. https://doi.org/10.22201/fe.01851667p.2018.303.64156