



Foreign Direct Investment, Foreign Debt, Population Growth and Economic Growth in Somalia: A Co-integration Analysis

Mohamed Saney Dalmar¹, Ali Abdulkadir Ali², Ali Yassin Sheikh Ali^{3*}

¹Graduate Studies, SIMAD University, Mogadishu, Somalia, ²Faculty of Humanities, Somali University, Mogadishu, Somalia,

³Faculty of Economics, SIMAD University, Mogadishu, Somalia. *Email: profali@simad.edu.so

Received: 02 September 2018

Accepted: 28 October 2018

DOI: <https://doi.org/10.32479/ijefi.7387>

ABSTRACT

This study aims to shed light on some of the key macroeconomic indicators that might improve Somalia's real per capita economic growth. It also aims to verify the possible ways in which these factors could influence the formulation and implementation of economic policy. Specifically, it uses the Johansen test of co-integration to establish and assess a number of co-integrating variables that are related to economic growth and whether a long-run association between these variables and some of the major macroeconomic features of economic growth in Somalia can be established in these co-integration tests, without resorting to arbitrary normalization. The data range represents the period from 1991 to 2014. The augmented Dickey Fuller technique is used to test the features of the time series in the data. The observed results show that almost all of the necessary variables were stationary (did not have a unit root), following their first differencing. Finally, it was found that there is at least one co-integrating equation among the variables in the model used in this study. For policy recommendations, the government administration is advised to seek possible alternative ways to internally generate more revenue and returns as opposed to becoming dependent solely on overseas support.

Keywords: Foreign Direct Investment, External Debt, Population, Gross Domestic Product, Johansen Co-Integration, Somalia

JEL Classifications: Q56, H63, F43, C22

1. INTRODUCTION

A number of studies on public debt indicate its diverse effects on gross domestic product (GDP). These studies also note that these effects differ among countries due to a number of diverse factors. This study uses co-integration and multiple regression analysis to investigate the different macroeconomic indicators of GDP and the effects foreign debt, population and foreign direct investment (FDI) have on domestic growth. The findings of various research articles confirm the efficiency of public borrowing and how it influences economic growth in almost every country where this takes place. In fact, borrowing is positively and significantly correlated with an increase in economic growth. Similarly, other studies show fascinating empirical outcomes where economic openness and FDI are found to be co-integrated (Ribeiro, 2012).

Yet another study shows that foreign debt and international trade have a mutual direct correlation. When people trade openly with one another, they each benefit. Trade leads to significant progress through specialization and innovation, particularly in some developing countries. Developing countries are found to initially focus on external debt for development-related purposes, such as investing in sophisticated capital equipment and increasing their capital or using it to build the infrastructure considered necessary to increase revenue and lead to economic growth (Ali et al., 2016).

In the same study, the author proposes that "foreign debt can have both a positive and a negative impact on economic growth and this depends on the way the country and its administration make use of it for developing productive infrastructure and empowering its human resources in order to avoid any wastage through

mismanagement and corruption” (Ali et al., 2016). Researchers, such as Korkmaz (2015), are quoted as saying that most countries seek external debt when there is a lack of or very few internal incentives for saving. Rather, it is advisable for developing countries to seek any possible means of creating savings in order to boost private investment, which then generates economic growth.

Likewise, foreign direct investment (FDI) plays an important role in the growth of an economy. FDI brings investment into an economy in the form of equity capital. Reinvested earnings from FDI lead to further short- and long-term capital generation and investment. GDP is a measure of the value of all final goods and services produced within a country within a given period of time. GDP is used as a marker of economic development; it is also a measure of a country’s standard of living.

Research shows that foreign debt and FDI have impacts on economic growth (Lasbrey et al., 2018; Ozturk, 2007). This can be clearly seen when using time series data. An auto regression distribution lag model and the Bounds test method of co-integration are applicable for assessing the long-term association between (Pesaran et al., 2001) external debt and economic growth. However, while a positive association is found for foreign debt, the FDI coefficient shows a negative relationship with economic growth (Moga, 2016).

In a study on population growth and real GDP per person, no indication was found of a clearly defined relationship between the two variables, in particular, in countries where there is lack of fertility control and efficient managerial techniques. This particular study addresses some of the factors that affect rapid population growth and its link with economic growth (Muhammad, 2014).

In another study, a trend analysis was conducted in order to discover whether factors such as the fertility rate, birth rate, life expectancy, mortality rate, and crude death rate either determine or are the basis of rapid population growth rates. This study calls for an agenda on population control as a prerequisite for the development of important productive infrastructures so as to improve welfare, standards of living and the quality of life Akinwande, 2012. Ibrahim et al. (2017) examine determinants of foreign direct investment (FDI) in Somalia, measured FDI inflow. Used time series data obtained from World Bank and SESRIC for a period of 41 years that is 1970–2010. The results show a negative and significant relationship in exchange rate and FDI, while, a positive and significant relationship is observed between inflation, external debt and domestic investment of FDI.

For developing countries to attain the desired level of economic growth and development, they require strategic frameworks and highly thought-out logical and rational in-depth decision-making. In particular, focus should be placed on political decisions related to financing strategies. As underdeveloped countries typically have budget insufficiencies, they seek outside sources of financial support. These include external borrowing and development assistance packages, from developed countries, that come with tied conditions. A tied aid is designed to benefit a developed country and often leaves the developing country with mounting debt while

being no further ahead economically. This paper examines the role FDI, external debt and population growth could play in enhancing the economic growth of Somalia - A developing country.

2. LITERATURE REVIEW

2.1. Foreign Direct Investment and Economic Growth

As Foreign Direct Investment is a vital source of economic growth for most developing countries and population growth and external debt have adverse effects, there continues to be extensive research on the roles these factors play in either enhancing or impeding progress in less-developed and developing countries. Antwi et al. (2013) studied the relationship between FDI and economic growth in Ghana, using time series data for the period 1980–2010. They found that GDP has a significant relationship with FDI in that country. Djurovic (2012) explored the effects of FDI on economic growth in Cameroon. The author analyzed annual data for the period of 1977–2010 and found a positive relationship between FDI and economic growth in Cameroon.

As FDI is a key factor in economic growth, developing nation-states need to put particular emphasis on devising policies that encourage this investment. Lenka and Sharma (2014) studied the impact of inflows of FDI on economic growth, using panel data for the period 1991–2010. The study employed different models for analysis, including field economic model, rational economic man, and panel-corrected standard errors. The findings of generalized least square estimation confirmed that a country’s population growth, education level and savings rate are positively associated with its rate of economic growth. While the inflow of FDI is a main factor for economic development, Enu et al. (2013) investigated the macroeconomic factors that affect economic growth in Ghana, using time series data for the period from 1980 to 2010. This study adopted Johansen’s co-integration model to determine the number of co-integrating vectors associated with economic growth in that country; they used the augmented Dickey Fuller (ADF) to test the time-series properties of the data. Their findings indicate a co-integration between economic growth and the macroeconomic factors such as FDI, external debt and population growth. The authors recommend that the Ghanaian government should create more revenue locally rather than depending on foreign aid. Ozturk and Acaravci (2010) stated that FDI promotes economic growth in Turkey.

Andinuur (2013) explored the relationship between inflation, foreign direct investment and economic growth in Ghana, using annual data for the period 1980–2011. The ADF test was used to determine the stationarity of the data; the Johansen’s co-integration test was also used to test whether a long-run relationship exists between the variables. Finally, this study tested the causal relationships between the variables and found positive short - and long-run relationships and bi-directional causality between FDI and GDP.

2.2. External Debt and Economic Growth

Sánchez-Juárez and García-Almada (2016) used dynamic econometric models and panel data for 32 US states for the period 1993–2012. The results show that external debt is positively correlated with public investment and this, in turn, generates economic growth. Similarly Maghyereh (2002) examined the

effects of external debt on the performance of the Jordanian economy, using new econometric techniques to determine its optimum level. The results show that the optimal level of foreign indebtedness is roughly 53 percent of GDP. This implies that as the foreign debt surpasses this level, it has an inverse effect on the performance of the Jordanian economy.

Zouhaier and Fatma (2014) studied the effect of external debt on the economic growth of 19 developing nation-states, by using a dynamic panel data model and time series data for the period 1990–2011. The results show that debt has a negative effect on growth. The paper also examined the effects of debt on the contribution of investment to growth and shows that external debt has a negative effect here as well. Jilenga and Xu (2016) investigated the impact of external debt and FDI on the economic growth of Tanzania for the period 1971–2011. Their results indicate that, in the long-run, foreign debt encourages economic growth in that country but FDI has an adverse impact.

Safdari and Mehrizi (2011) studied the relationships between external debt, gross domestic product, private investment, public investment and imports, using time series data for the period 1974–2007. The study employed a vector auto regression (VAR) model and ADF and Johansen's co-integration tests. The findings show that external debt has a negative effect on GDP and private investment.

2.3. Population Growth and Economic Growth

Maestas *et al.* (2016) predicted that a 10% increase in the proportion of the population over 60 years of age causes a reduction in growth in GDP per capita of 5.7%. The study found that this 5.7% reduction in economic growth is primarily due to reduced growth of the labor supply due to an aging population. Dao (2012) also observed the economic effects of this demographic transition in developing countries. The data were obtained from the World Bank's world development indicators, which begin with the year 2010. The results show that there is a connection between the ratio of young to dependent members of the population, and population growth and economic growth.

Paper and Pilani (2016) investigated the effects of rapid population growth on economic development in India. The result indicates that for every unit increase in the population, the GDP increases by 3.383108 units. This implies that population growth had a positive impact on India's economic development during the period under the study. Peterson (2017) also examined the relationship between population and economic growth, while focusing on an economic analysis of inequality. The findings note that a small population growth rate and restricted migration may contribute to an increase in domestic and global economic inequality.

Deale (2014) applied the bootstrap panel causality test and annual time series data for the period 1870–2013 to determine the relationship between population growth and economic growth in 21 countries. The results show that there is a one-way Granger-causality from population growth to real GDP growth for countries such as France, Finland, Sweden and Portugal. Similarly, Muthui *et al.* (2013) explored the relationship between population growth and economic growth in Kenya. The study used a VAR model and

time series data for the period 1963–2009. The results show that there is a direct positive relationship between population growth and economic growth and this implies that an increase in the population has a positive effect on economic growth.

3. METHODOLOGY

This research uses a multi-variable econometric model to perform a regression analysis on time series data to verify whether there exists a long-run association between FDI, external debt, population growth, and real GDP. The author prefers the ADF test and the Johansen test of co-integration as these methods provide more profound means of detecting if there is a long run relationship among the variables of interest.

3.1. Data Source

The study uses secondary data from the World Bank and the IMF for the period 1991–2014. The Johansen test of co-integration analysis is used to find out whether there exists a long-run relationship between FDI, external debt, population growth and economic growth. Further, Stata 11 was utilized.

3.2. Model Specification

The model consists of an econometric equation with many variables, with one being the explained variable (GDP) and the others being the explanatory variables for time_t.

$$GDP_t = \alpha + \beta_1 PP_t + \beta_2 FDI_t + \beta_3 ED_t + \varepsilon_t$$

Here, the estimated parameters are as follows: α represents the intercept of the model; there are also three model coefficients: $\beta_1 \beta_2 \beta_3$; ε_t is the stochastic term, which is a random element and represents everything else not included in the model at the time t ; GDP_t is the abbreviation of gross domestic product in US dollars; and ED_t (external debt) is the annual government debt at the end of every year.

PP_t stands for population and is the sum of the number of residents of a country. The population is based on data obtained from the UN's Estimation of Population Change Registers. FDI_t represents foreign direct investment, which includes all of the investment a country, receives from the other global foreign investors, both private and public.

3.3. Model Diagnostic Assumption Tests

The model is tested to determine whether there are problems of autocorrelation or heteroscedasticity and also to observe whether or not the variables are normally distributed in terms of stochasticity. The researcher also applies proper econometric modelling techniques so as to ensure its overall fitness.

4. DATA ANALYSIS AND FINDINGS

This section presents an analysis of the data and an interpretation of the results of this research. A regression analysis is employed to determine the fundamental relationship between FDI, external debt, population growth and economic growth, in Somalia over the

period 1991–2014. The short-and long-run relationships between these variables are also addressed.

4.1. Regression Analysis Results

Table 1 shows the regression results for GDP, FDI, external debt and population growth, on the Somali economy, for the period 1991–2014. As illustrated by the value of the R-squared, the fitness of the model seems to be good. The value of the adjusted R-squared is 0.7553, or 75.53%; this shows the strength of the overall fitness of the model. In addition, the remaining 36.977% is explained by the stochastic term, meaning that other factors are either absent or excluded from this model but are nevertheless supposed to have an influence in explaining the changes in the regressed variables. Moreover, it is also shown that the F-statistics are also significant and each parameter’s individual statistical significance is indicated by the t-statistics in all of the variables. The FDI coefficient is also statistically insignificant at the 5% level in terms of its effect on GDP. The remaining two independent variables of population and external debt do have a significant effect on GDP, but the coefficient of external debt has a negative sign, which implies that as external debt increases, GDP declines.

4.2. Model Assumption Test Results

There are classical linear regression model (CLRM) assumptions regarding the efficiency of the data and the error terms. These should be checked using the following tests: Normality, heteroscedasticity, serial correlation, multicollinearity, and specification bias.

4.2.1. Normality Test Results

Table 2 shows that the stochastic terms have a normal distribution and, therefore, support the null hypothesis. The alternative hypothesis is that the random stochastic term does not have a normal distribution. The Shapiro-Wilk test statistic, which is used to test for the normal distribution of the error term, is 0.93484 and has a significant P = 0.12507, which is greater than a 5% significance level. These results show that the error terms are normally distributed.

4.2.2. Trend analysis of the key variables in the model

As the Figure 1 shows, FDI was very low in Somalia, during the 1990s, because of the country’s political instability and the severity of the civil that took place during a time when there was

a complete collapse of government institutions and other legal and regulatory bodies as well as other essential factors that encourage the inflow of foreign investors to a country. However, after the fall and ouster of the war lords and the Islamic Courts Union seized control, there was a slight increase in the inflow of FDI, probably due to the improved socio-political situation and security status. This was a time of a slight relative calmness, which might have promoted and encouraged a few foreign investors into the country, in particular, due to the reopening of both the sea ports and airports in Mogadishu and elsewhere. The data then indicates a sharp decrease in FDI, due to the Ethiopian invasion of the south-central regions of the country and a political and economic situation that became severely chaotic.

Figure 2 illustrates that the Somali population experienced smooth and steady growth throughout most of the time period of the data, with the exception of some slight fluctuations. The period depicted in the graph shows that the decreases in population size were probably due to sudden shocks, such as high levels of migration and displacement, as a result of the Ethiopian invasion; and the dramatic increases in the gross death rate, due to natural calamities such the recurrent severe droughts and subsequent food shortages that followed manmade disasters, such as the intense fighting that killed many people and displaced many more during this period.

Moreover, the Figure 3 also points out that Somalia’s external debt had been steadily rising, with some downturns in the periods between 2002 and 2004 and 2008 and 2009. This steady increase in debt is mainly due to long-term compound interest rates, which are bound to increase the debt burden and its influence on GDP growth.

GDP is a major macroeconomic indicator. As Figure 4 indicates, Somalia’s GDP growth was sluggish in the early 1990s and the graph seems to be almost flat, without any tangible rise in the slope, until the late 1990s and early 2000s when it began to make slight progress mainly due to consumption expenditure as there was a relatively substantial inflow of money from the Somali Diaspora which supported family members and relatives. The other components of the GDP, such as investment expenditure and government expenditure, were too low or partly nonexistent, together with a huge trade deficit.

Table 1: Ordinary least squares regression; GDP as dependent variable; FDI, population and external debt as explanatory variables

Source	SS	df	MS	Number of obs.	=24
Model	2.2359e+18	3	7.4530e+17	F (2.42)	=24.66
Residual	6.0441e+17	20	3.0220e+16	Prob>F	=0.0000
				R-squared	=0.7872
				Adj R-squared	=0.7553
Total	2.8403e+18	23	1.2349e+17	Root MSE	=1.7e+08
GDP	Coef.	Standard error	t	P>t	(95% confidence interval)
FDI	2498054	1422434	1.76	0.094	-469090.9 (5465200)
POP	297.7022	73.84021	4.03		143.6743 (451.7302)
				0.001	
ED	-1185.44	455.1798	-2.60	0.017	-2134.928 (-235.9515)
_Cons	3.13e+09	9.23e+08	3.39	0.003	1.20e+09 (5.05e+09)

GDP: Gross domestic product, FDI: Foreign direct investment

Figure 1: Foreign direct investment in Somalia, 1991–2014

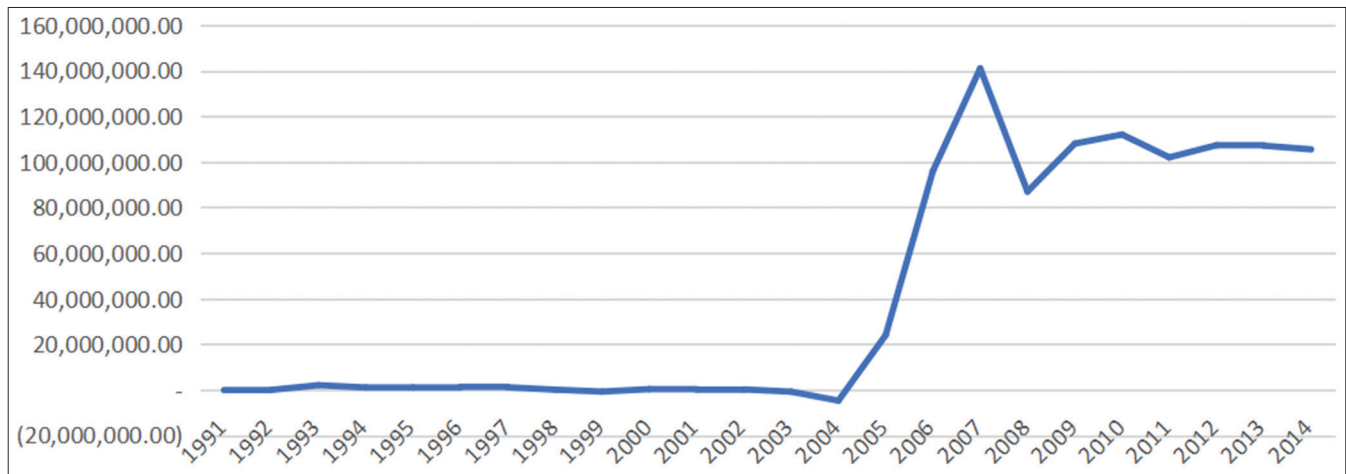


Figure 2: Trend of population growth

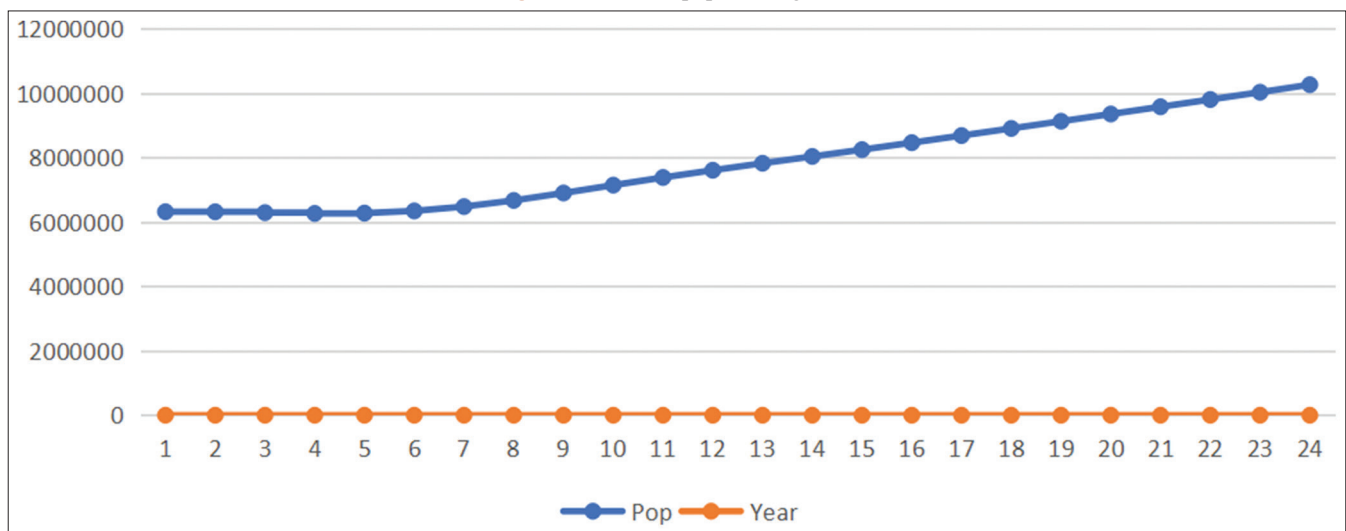


Table 2: Shapiro-Wilk W test for normal distribution

Variable	Obs	W	V	Z	Prob >z
U	24	0.93484	1.758	1.150	0.12507

4.2.3. Heteroscedasticity test results

In Table 3 the issue of heteroscedasticity in the model is checked. Here, the null hypothesis is: The error terms are not heteroscedastic, which means the stochastic term variance is constant. Similarly, the alternative hypothesis is: The error terms are heteroscedastic, which implies that the variance of the error terms is not constant. The Breusch-Pagan-Godfrey test was used to detect whether or not there is heteroscedasticity. Here, the Chi-square test result is 2.01 and the P = 0.1565, which is greater than a 5% level of significance; therefore, the null hypothesis cannot be rejected and the error terms do not have a constant variance.

4.2.4. Autocorrelation test result

An autocorrelation test is one of the CLRM assumption tests. In Table 4 Durbin’s alternative autocorrelation test is performed to verify the presence or absence of autocorrelation. The null hypothesis is: The error terms are not serially correlated; the alternative hypothesis is: The stochastic term is auto-correlated.

The Durbin’s alternative autocorrelation test indicates that the error terms have autocorrelation; this is because the Chi-square test statistic equals 5.544 with a P = 0.0185, which is smaller than the 5% level of significance. Therefore, the null hypothesis is rejected, hence there is autocorrelation.

Table 5 presents the results of a pairwise correlation analysis with their corresponding p-values. Correlation coefficients can be positive or negative; the results of the analysis show a positive correlation, which implies that as one variable increases the other also increases.

From Table 5, it can be seen that the correlation coefficients (r) are all positive and equal: 0.7833**, 0.8380**, 0.6797**, 0.8677**, 0.8500** and 0.9187**, indicating a strong relationship, as summarised earlier, and the P < 0.001 (never write P = 0.000), which indicates that the coefficients are significantly different from 0.

4.3. The Unit Root Test in ADF and Philip Paron ADF and PP

In Table 6, the unit root test is used for detecting the presence of a unit root, which implies whether or not there is stationarity among

Figure 3: External Debt

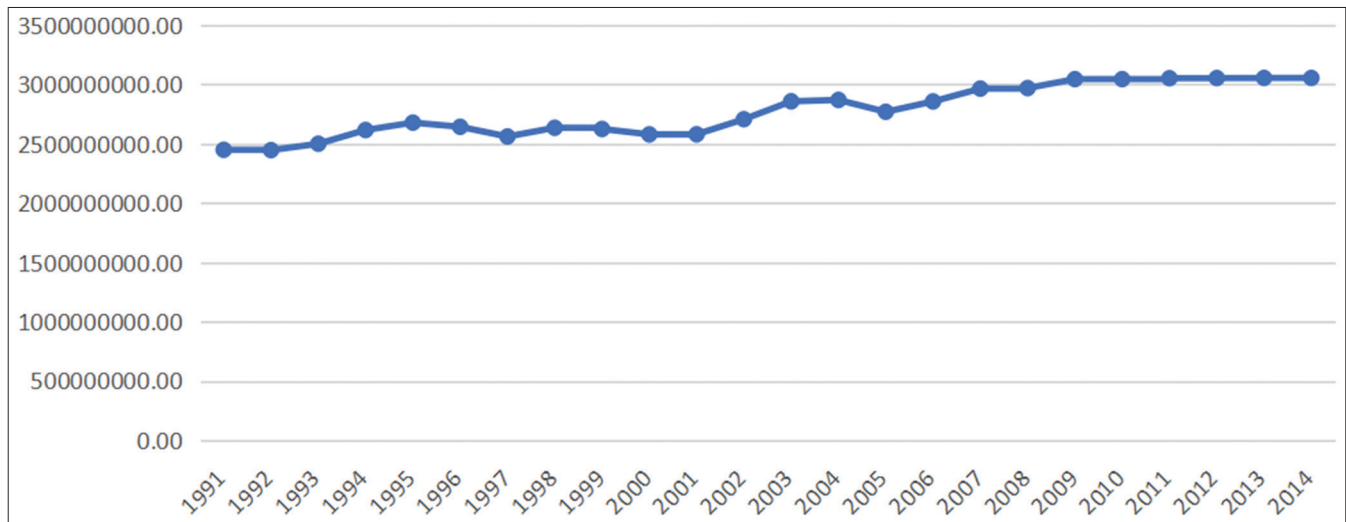


Figure 4: Gross domestic product

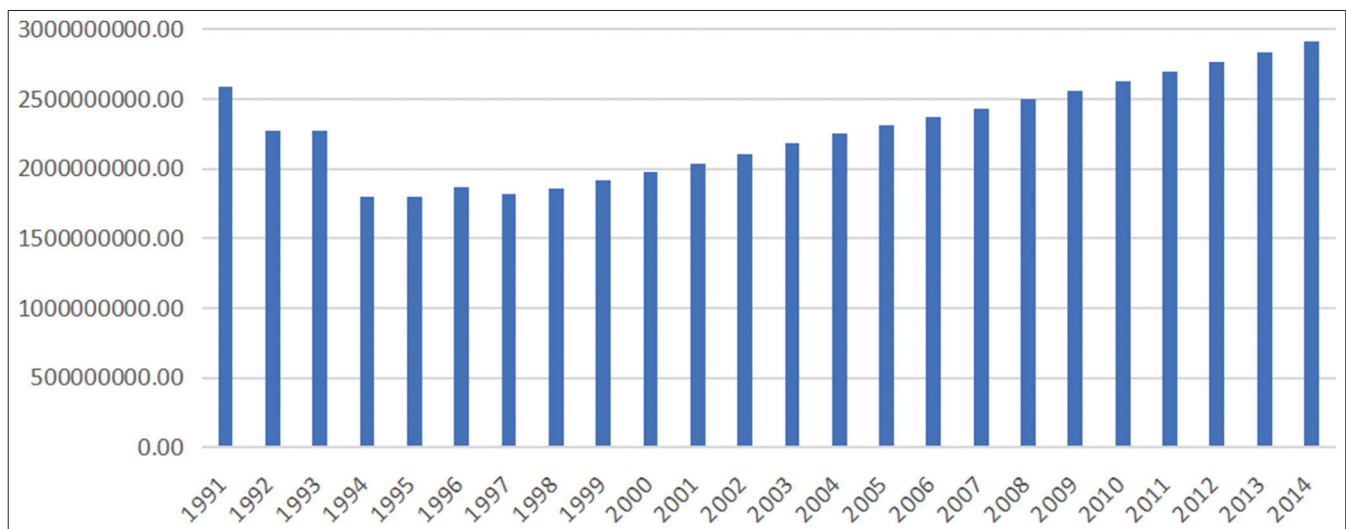


Table 3: Heteroskedasticity test

Breusch–Pagan/Cook–Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: Fitted values of GDP	
$\chi^2(1)=2.01$	$\text{Prob}>\chi^2=0.1565$

Table 4: Autocorrelation test

Durbin’s alternative test for autocorrelation			
Lags (p)	χ^2	df	Prob>χ^2
1	5.544	1	0.0185

Ho: No serial correlation

the variables. When the variables are stationary, then they are all stationary over the long run.

To avoid spurious regression estimates as a result of the use of non-stationary variables, the variables in the model had been checked for stationarity. Then ADF and Philip-Perron (PP) test statistics were adopted to observe whether there is a unit root in the variables.

Table 5: Pairwise correlation

	GDP	FDI	POP	ED
GDP	1.0000			
FDI	0.7833*0.0000	1.0000		
POP	0.8380*0.0000	0.8677*0.0000	1.0000	
ED	0.6797*0.0003	0.8500*0.0000	0.9187*	1.0000

GDP: Gross domestic product, FDI: Foreign direct investment

Table 7 shows whether there is a long-term association among the variables. The Johansen test of co-integration (1991–2014) rejects the hypothesis of no co-integration.

Here, the underlying hypothesis is as follows: The null hypothesis (H0) states that there is no co-integration; whereas hypothesis 1(H1) states that there is a co-integration among the variables. The guideline is that when the trace statistic or the eigenvalue statistic is greater than the 5% critical value, then the null hypothesis is rejected; if not, then we accept the alternative hypothesis. In this test, the first equation of the Johansen Model shows that there is co-integration among the variables; this implies that these variables are associated in the long run because both the trace statistic and

Table 6: ADF and PP tests to check the unit root in time series data

Variables	ADF		PP	
	Intercept only	Intercept with trend	Intercept only	Intercept with trend
Level				
GDP	-0.185	-4.520	-0.541	-7.396
FDI	-0.766	-2.006	-0.792	-2.074
POP	3.934	-6.623	2.325	-4.949
ED	-1.424	-1.819	-1.422	-1.950
1st difference				
ΔGDP	-3.819***	-4.925***	-3.840***	-4.908***
ΔFDI	-4.039***	-3.949***	-4.000***	-3.900***
ΔPOP	-2.018	-0.872	-0.872	-1.226
ΔED	-3.332***	-3.361	-3.193***	-3.231

***P<0.001. GDP: Gross domestic product, FDI: Foreign direct investment

Table 7: Johansen test of co-integration

Maximum rank	Parms	LL	Eigenvalue	Trace statistic	5% critical value
0	36	-945.79404		190.2730	47.21
1	43	-873.77787	0.99895	46.2407	29.68
2	48	-858.2815	0.77141	15.2479*	15.41
3	51	-850.92671	0.50364	0.5384	3.76
4	52	-850.65753	0.02531		

Source: Authors own computation

the eigenvalue statistic are greater than the critical value at the 5% level and, hence, the null hypothesis of no co-integration is rejected and we accept the alternative hypothesis that the variables in the model are co-integrated.

5. DISCUSSION OF FINDINGS

This study used a regression analysis technique on the variables of economic growth, being the explained or regressed variable; and FDI, external debt, and population, being the explanatory variables. The results of the analysis indicate that the strength of the model is good as it has an adjusted R-square of 0.7553, or 75.53%, meaning that 75.53% of the variation in the dependent variable (R-GDP) for Somalia is due to the explanatory variables: FDI, external debt and population, while the other 25% is summed up in the error term, meaning that every other variable that might influence the dependent variable is not included in the above specification form.

The study used the F test to check the overall fitness of the variables, while the t-test was used to check the statistical significance of each variable's coefficient. The Stata 11 version was applied for this study. The study results indicate that the coefficients of population and external debt are statistically significant at the 5% level. Conversely, the coefficient for FDI shows it to be statistically insignificant, which goes against the estimated hypothesis and the theories in the existing literature. External debt has a negative sign, which means that this variable is inversely related to the explained variable, GDP. Despite the fact that the importance of FDI and its role in the economy are in line with much the literature on this topic, the outcome of this study shows the contrary. In addition population growth is also

statistically significant which implies that it also useful and can contribute on to the growth of the overall economy.

In the ADF test, the results indicate that none of the variables are stationary or have a unit root at the 5% level, but when first differenced they become stationary. When variables are stationary, the Johansen test of co-integration is run so as to ascertain whether the variables are associated in the long run. In this study, the test results indicate that there is at least one co-integrating equation, which means that the variables in the model have an extended association.

6. CONCLUSION AND RECOMMENDATIONS

This study's major objective was to determine the long-run association between external debt, population and FDI and their impact on real GDP growth in Somalia. Secondary time series data was obtained for the period 1991 to 2014. It was found that, in the long term, external debt is negatively associated with real GDP growth. The implication is that an increase in foreign debt is bound to reduce both GDP and GDP growth. On the contrary, the coefficient of FDI shows this factor to have a positive effect on GDP growth; however, it is statistically insignificant. In addition, Somalia has had longstanding external debts and this could have acted as a stumbling block rather than a stepping stone toward the country's economic growth. Also, in order to realize substantial achievement, policymakers should set up a comprehensive development framework and the appropriate administration of external debt as debt servicing could prove to be an impediment to economic growth and development. The variables seem to have a long-run association, which means that they act together in the long run. The following points recap the researcher's recommendations:

- It is necessary and advisable to consider any possible option that would encourage FDI as this could contribute to real GDP growth, in the country, both in the short and long run. Developing countries in particular can make use of FDI inflows by absorbing it through the diffusion of the types of sophisticated modern technology that could increase employment opportunities. In addition, the tax-revenue and spill-over effects of FDI can act as stimulants to the entire economy.
- Governments and policymakers are advised to seriously consider any condition that may contribute to a win-win situation when signing contracts. When foreign investors sign contracts with local investors and these parties collaborate well with one another, they can diffuse new technologies, new ideas for innovation, and creative mindsets throughout the economy.
- In addition, in order to further development, there is a need to engage more in human capital investment and the provision of and improvements in health standards and to develop quality education programs. There is also a need for productive infrastructure in order to facilitate the use of the country's present and future resources.
- Solow's (1956) neo-classical theory of economic growth emphasizes that in order for countries to grow economically they should increase both the quality and quantity of the labor force by encouraging population growth and then

boosting its education level; raising the capital stock by increasing both savings and investment and encouraging an increase in technological sophistication through research and development will also contribute to economic growth and development.

- Dependency on foreign debt should be reduced as much as possible and the administration should have the capacity to seek and create local and national revenue-generating processes so as to reduce reliance on foreign assistance.
- Policy makers should focus on ways to reduce unemployment in order to make use of the population's current workforce by encouraging and engaging them in creativity and innovation.
- There is a considerable level of difficulty in finding time series data of the major macroeconomic indicators due to the failure and collapse of Somalia's central government and almost all economic data pool centers and these circumstances create some obstacles and limitations in discovering more about Somalia.

REFERENCES

- Ali, H., Farooq, F., Mumtaz, N. (2016), Trade openness, external debt and growth nexus in Pakistan: Empirical evidence from ARDL Modeling Approach and co-integration causality analysis. *Review of Economics and Development Studies*, 2(2), 93-102.
- Andinuor, J. (2013), Inflation. *Foreign Direct Investment and Economic Growth in Ghana*, 10362649, 1-102.
- Antwi, S., Fiifi, E., Atta, E., Zhao, X. (2013), Impact of foreign direct investment on economic growth: Empirical evidence from Ghana. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(1), 18-25.
- Akinwande, A.A., Aminu, S.B., Alimi, O.Y. (2012), The Role of Population on Economic Growth and Development: Evidence from Developing Countries. MPRA Paper No. 37966. Available from: <https://www.mpra.ub.uni-muenchen.de/37966>.
- Bhanu, P., Pilani, S. (2016), Effect of Population Growth on Economic Development in India. Working Paper.
- Dao, M.Q. (2012), Population and economic growth in developing countries. *International Journal of Academic Research in Business and Social Sciences*, 2(1), 6-17.
- Deale, F.W. (2014), The Relationship between Population Growth and Economic Growth Over 1870-2013? Evidence from a Bootstrapped Panel-Granger Causality Test Tsangyao Chang Hsiao-Ping Chu Rangan Gupta, University of Pretoria, Department of Economics Working Paper Series.
- Djurovic, A.B. (2012), The impact of foreign direct investment on the economic growth in developing countries (2000-2010). *Economic Development*, 2012, 1-15.
- Enu, P., Havi, E.D.K., Attah-Obeng, P. (2013), Impact of macroeconomic factors on foreign direct investment in Ghana? A co-integration analysis. *European Scientific Journal*, 9(28), 331-348.
- Ibrahim, M.I., Omar, Z.M., Ali, Y.S. (2017), The determinants of foreign direct investment in Somalia. *International Journal of Economics and Financial Issues*, 7(3), 713-720.
- Jilenga, M.T., Xu, H. (2016), The impact of external debt and foreign direct investment on economic growth? Empirical evidence from Tanzania. *International Journal of Financial Research*, 7(2), 154-162.
- Korkmaz, S. (2015), The Relationship Between External Debt and Economic Growth in Turkey. Turkey: Proceedings of the 2nd European Academic Research Conference on Global Business, Economics, Finance and Banking. p978-1.
- Lasbrey, A., Enyoghasim, M., Tobechei, A., Uwajumogu, N., Chukwu, B., Kennedy, O. (2018), Foreign direct investment and economic growth: Literature from 1980 to 2018. *International Journal of Economics and Financial Issues*, 8(5), 309-318.
- Lenka, S.K., Sharma, P. (2014), FDI as a main determinant of economic growth? A panel data analysis. *Annual Research Journal of Symbiosis Centre for Management Studies*, 1(1), 84-97.
- Maestas, N., Mullen, K.J., Powell, D. (2016), The effect of population aging on economic growth. NBER Working Paper Series, 22452(650), 53-63.
- Maghyereh, A. (2002), External Debt and Economic Growth in Jordan? The Threshold Effect. p. 1-27.
- Moga, T.J. (2016), The impact of external debt and foreign direct investment on economic growth: Empirical evidence from Tanzania. *International Journal of Financial Research*, 7(2), 154-162.
- Muhammad, U. (2014), Impact of foreign debts on the economic performance of Pakistan. *IOSR Journal of Business and Management*, 16(7), 43-52.
- Muthui, J.N., Kosimbei, G., Maingi, J., Thuku, G.K. (2013), The impact of public expenditure components on economic growth in Kenya 1964-2011. *International Journal of Business and Social Science*, 4(4), 233-253.
- Ozturk, I. (2007), Foreign direct investment-growth nexus: A review of the recent literature. *International Journal of Applied Econometrics and Quantitative Studies*, 4(2), 79-98.
- Ozturk, I., Acaravci, A. (2010), FDI, trade and growth in Turkey: Evidence from ARDL bounds testing approach. *Argumenta Oeconomica*, 2 (25), 95-115.
- 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.
- Peterson, E.W.F. (2017), The role of population in economic growth. *SAGE Open*, 7(4), 1-8.
- Ribeiro, T.V. (2012), The effect of public debt and other determinants on the economic growth of selected European countries. *Economics and Management*, 17(3), 914-921.
- Safdari, M., Mehri, M.A. (2011), External debt and economic growth in Iran. *Journal of Economics and International Finance*, 3(5), 322-327.
- Sánchez-Juárez, I., García-Almada, R. (2016), Public debt, public investment and economic growth in Mexico. *Int J Financ Stud*, 4(2), 6.
- Zouhaier, H., Fatma, M. (2014), Debt and economic growth. *Int J Econ Financ*, 4(2), 440-448.