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The Relationship Between Foreign Aid and Economic Growth: Empirical Evidence from Somalia

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ABSTRACT

The purpose of this research investigation is to determine the effect of Sweden aid, UK aid, and US aid with control variables including the capital, and labor on economic growth utilizing Somalia data for the years 1989 to 2017. the study checked unit root problem by using both Phillips Perron (PP) and Augmented Dickey Fuller (ADF) bounds testing approach were employed to model the long-run and short-run cointegrations of the scrutinized variables and also the study uses the J & J cointegrating to regress for the long-run estimation. The study's empirical findings revealed that the variables had a long cointegration. It was discovered that while UK aid has no noticeable long-term relationship with economic growth in Somalia, whereas Swedish aid and US aid contribute the economic growth of Somalia. There are indications that Swedish assistance will boost long-term economic growth. Similarly, US aid is indicated to contribute to long-term gross domestic product (GDP), but UK aid has an insignificant impact on economic growth because UK aid relates mostly to military aid compared to those two other countries. Capital is also seen to contribute to long-term gross domestic product (GDP) which is suggesting that capital growth is more responsive to economic growth than other variables. While labor is also seen to contribute to long-term gross domestic product. Therefore, policymakers should establish a strategy to growth the economy by promoting the economy's most important drivers, such as exchange rates, capital, and inflation, and address drivers that impede the country's economic growth, such as the labor force.

1. INTRODUCTION

Economic growth is one of the strategic objectives that every country has, in both emerging and developed economies struggles to achieve. Despite the long history of economic growth studies, finding new strategies to accelerate economic growth is a constant pursuit [1, 2]. It is very crucial to understand the factors that drive economic growth and how they interact. For instance, there were numerous attempts to identify the factors driving economic growth. Foreign aid is among some of these crucial elements in the literature on development economics. A lot of studies found that foreign aid is one of the factors that contributes the economic growth of the countries which direct transfer of public funds to another government from abroad in the form of loans and grants for welfare objectives by one government or an international financial organization [3].

Foreign Aid is a developmental Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) as payments made by official organizations, such as state and local governments or their executive branches, to nations, territories, and multilateral development organizations; each transaction must be handled with the primary goal of advancing the welfare of developing nations and must be of a concessionary nature [4]. According to Ouyang & Li [2], foreign aid and foreign direct investment are two important sources of funding for developing nations, particularly in Africa, to boost economic growth. Foreign aid primarily comes from developed countries to developing ones in the form of official development assistance (ODA). The Foreign aid complements other finance sources and establishes the appropriate external and internal conditions to draw and facilitate the foreign direct investment (FDI) inflows that developing countries are unable to draw directly [5]. Foreign aid is important in order to provide educational infrastructure, stabilize countries that have experienced economic shocks, and provide health care and lastly to promote economic growth [6]. Therefore, economic growth as a strategic for every nation foreign aid can contribute that objective.

Somalia is a one of the poorest countries in the world with high inflation and unemployment rates [7, 8], and energy insecurity [9, 10]. Foreign aid remains a crucial for economic growth and infrastructure development. The foreign aid has increased while foreign direct investment has decreased in recent years [11]. However, it should be noted that Somalia's institutions for receiving and dispersing foreign aid, particularly the public administration, are constrained in their ability to do so, principally due to inadequate organization and planning, corruption, injustice, and political instability [12]. Before analyzing how foreign aid in Somalia contributes the economic and social development it is vital to estimate the volume, origins, and impact of foreign aid inflows. A lot of least developed nation including Somalia are dependent financial assistance from developed countries, international

financial organizations, and consortiums in the form of loans or grants [13]. The financial assistant of Somalia rose from 0.47 million in 1985 to 1.26 billion in 2017. The foreign aid in Somalia has been fluctuating, but hit its lowest point in 1996, before steadily increasing until 2010 and increasing again since 2017 [13]. A lot of previous studies have indicated a strong relationship between foreign aid and economic growth [6]. Although, other studies have shown a negative relationship between economic growth and foreign aid [4, 5, 14]. Lastly, there are empirical evidence that found no relationship between foreign aid and economic growth [15]. There is no conclusive decision about the impact of foreign aid on economic growth in general. Therefore, this study will undertake to investigate the impact of foreign aid on economic growth in Somalia.

Although, there are lot of studies related to economic growth and foreign aid that have been conducted in different parts of the world [1, 2, 13, 15]. However, empirical studies on the relation between economic growth and foreign aid in Somalia are scanty. Therefore, this study to the best of my knowledge is the first study that investigates the relationship between foreign aid and economic growth in Somalia particularly, Sweden aid, UK aid, and US aid with control variables of capital, and labor on economic growth. Also, the contribution of the current study to the existing empirical literature is by applying ARDL method to analyses the short-run and long-run associations between foreign aid and economic growth in the context of Somalia. Thus, this paper aims to apply the Johansen cointegrating and utilizes a time series extend from 1989 to 2017 to carry out the intended empirical investigation.

2. LITERATURE REVIEW

The Keynesian paradigm of economic expansion [8, 16] studies the role that foreign aid plays in bridging the savings gap and spurring domestic investment, which helps developing countries grow their economies more quickly. According to Rosenstein-Rodan [17], the well-known big-push principle, an underdeveloped economy to address growth hurdles, a minimum amount of high investment is required. In this case, foreign aid the following studies [13, 18, 19] concluded that foreign aid enhances a direct investment in non-industrialized nations by indirectly raising capital through increased domestic income and savings. Additionally, assistance in the form of technical assistants improves technical knowledge and human talent, thereby contributing to the economies of developing countries. Numerous theoretical and empirical studies on the effectiveness of international aid have been conducted in different parts of the world. As many economists attempted to experimentally investigate the relationship between the foreign aid and economic growth, the discussions on the impact of foreign aid on economic growth became a topic of interest. The study examines the pertinent empirical literature that used various modeling techniques to determine the scope.

According to Geetilaxmi et al. [20] this study used annual data from 1970 to 2014 to evaluate how foreign aid affects the expansion of the Indian economy. The co-integration test confirms a long-term link between India's real GDP per capita and foreign aid. The analysis concludes that both in the long run and the short run, foreign aid has a positive and considerable impact on India's economic development. Since 1960, countries in sub-Saharan Africa have received a significant amount of international aid. Throughout the 1960s, 1970s, and 1980s, assistance payments to the region grew steadily, but a significant drop in both multilateral and bilateral payments began in the mid-1990s [4]. It is concerning that this decrease in foreign aid was not entirely attributable to a drop in global aid donations but partly to donors' propensity to divert funds away from Africa and toward East Europe and East Asia, regions with significantly higher living standards [14].

Numerous studies on the relationship between foreign aid and economic growth have been conducted over the past three decades from a variety of ideological and methodological perspectives [15]. Empirical studies between foreign aid and economic growth have not been able to provide conclusive results. Some studies reported a positive significant effect between foreign aid and economic growth, other studies reported a negative significant effect, and a few others claimed that foreign aid had no significant impact on economic development. According to this study Karki [21] evaluated the effect of foreign aid on Tanzania's economic development. For instance, the study made use of yearly data spanning the years 1992 to 2014. Error Correction Model (ECM) was also used in the study to analyze the short- and long-term effects of international trade on Tanzania's economic development. The result shows that the model's long-term relationship between economic development and overseas aid is present. Although this study looked at how international trade affects economic growth, it did not directly address how foreign aid affects economic growth. This is supported Mustafa et al. [22], the study used autoregressive distrusted lag (ARDL) bounds tests to look into the relationship between foreign aid and Sudan's economic development. using information from time series that ranged from 1980 to 2015. The study's conclusions show that official development assistance (ODA), a type of foreign aid, has a sustained, significant, and positive relationship with Sudan's growth in the economy. Despite the fact that the study explicitly stated a relationship between foreign aid and economic growth, it exclusively focused on Sudan's economic development. As a result, it is impossible to generalize Somalia's economic growth to other African nations with diverse economic circumstances, even though it has made some improvement in recent years. Somalia has seen poor economic growth over the past two decades. Lastly, this study is also supported by Hongxing et al. [1] Foreign aid and economic growth: Do energy use, trade openness, and CO_2 emissions matter? is a well-researched paper? African trading blocs' heterogeneous evidence from DSUR. The findings of this study indicated a significant correlation between foreign aid and economic growth in African nations. Although though the study focused on the relationship between economic development and foreign aid in African nations, the economic conditions and foreign aid in various African nations vary. For instance, foreign aid to Somalia has increased recently while foreign direct investment has decreased [11]. Therefore, there is little research regarding the exact relationship between increasing foreign aid and economic growth in Somalia.

On the other hand, other studies indicate a negative correlation between economic growth and foreign aid. For example, Yiew and Lau [23] This study used 95 developing countries as their sample to examine the function of foreign aid (ODA) and its effects on GDP. According to the study's findings, foreign aid initially has a detrimental impact on a country's growth but eventually helps that country's economy

thrives. Hence, if foreign aid discourages the labor force from going to work since they are receiving it without working, it could hinder the country's economic expansion. Hence, staying at home instead of working is preferable. For instance, the Somali folks assume that foreign aid only comes to the nation when the farmers produce their own products, which deters farms from abstaining to farm. Therefore, that could cause the foreign to have negative impact on economic growth. Similarly a study conducted in Bangladesh by Zobair and Uddin [18] examined historical data on economic growth indicators and foreign investment in Bangladesh to learn more about the effects of these inflows. In this regard, data from the World Bank's database have been gathered for the years 1976 to 2017. The ARDL technique is used to do the analysis. The study came to the conclusion that foreign aid had a negative impact on economic growth. In other study in conducted in South Asian and South-East Asian by Rao et al. [5] the interactions between foreign aid, foreign direct investment (FDI), and South Asian and South-East Asian economic growth between 1980 and 2016. The study's conclusions showed that there was little correlation between economic growth and foreign aid. Lastly, a study conducted in Ghana by Appiah-Konadu et al. [24], this study used time series data from 1972 to 2012 to investigate how foreign aid affected Ghana's economic growth. The long-run and short-run links between aid and economic growth were investigated using the ARDL approach to co-integration (bounds test). The study concludes that foreign aid has negative significant impact on economic growth.

Apart from a positive and negative impact of foreign aid on economic growth, there are other studies indicating there is no a significant relationship between foreign aid and economic growth. For instance, Babalola and Shittu [25] studied the relationship between foreign aid and economic growth in West Africa: Examining Institutional Roles. The study analyzes panel data from the World Bank's global development and governance indices, spanning the years 1996 to 2017, using the autoregressive distributed lag technique. The results show that foreign aid has a neutral effect on economic growth. In Somalia it is conducted a study titled: effects of foreign debt and foreign aid on economic growth in Somalia [4]. However there are three issues with the study. First, the authors employed ordinary least squares (OLS) approach as fundamental model without exploratory analysis or causal inferences. second, the work was also published in un rebuttable journal. Third, the OLS method is only used. Therefore, J & J co-integrating method was hardly ever used in studies on Somalia. Co-integrating vectors are easily used in conjunction with FMOLS and DOLS. Contrary to the Somali-related study mentioned above, this one tackles the shortcomings by analyzing the effect of foreign aid on Somalia's economic growth. Thus, this study uses a recently developed econometric technique based on the co-integrating method over the years 1989 to 2017.

3. METHODOLOGY

3.1 Data

This study uses data related to four identified variables based on annually: economic growth measured gross domestic product (GDP), foreign aid (FAID), labor (L), and capital (K). Data series are retrieved from the OECD National Accounts and the World Bank. In order to determine if foreign aid and with control variables have direct relationship with economic growth. Variables were turned into a natural logarithm to uniformed the used series. Gross domestic product (GDP) was used as a dependent variable; foreign aid, inflation, labor, and capital were considered independent variables. The study's statistics were taken from the World Bank and the Statistical, Economic, and Social Research and Training Centre for Islamic Countries (SESRIC) of the Organization of Islamic Cooperation. The model includes the following variables: GDP, foreign aid, labor, and capital. A logarithm was created for each variable. The sources and description of the data are compiled in Table 1. The basic equation, which examines the relationship between economic development and foreign aid while taking into account with control variables, is as follows:

Table 1. Variable descriptions and sources

Variable	Code	Description	Source
Gross domestic product	GDP	GDP is the term used to describe the nation's economic expansion.	SESRIC
Foreign aid	FAID	The OECD defines foreign aid as payments made by official organizations, such as state and local governments or their executive branches, to countries, territories, and multilateral development organizations; each transaction must be managed with the primary objective of advancing the welfare of developing countries and must be concessionary.	SESRIC
Labor	L	Labor is measured total population of the country.	World Bank
Gross fixed capital formation	GFCF	Creation of gross fixed capital is calculated as a proportion of GDP. Gross fixed capital formation fosters the economy in terms of output, employment, expense, and benefit to enterprises and households.	SESRIC

3.2 Econometric modeling

In modeling foreign aid on the gross domestic product, authors adhered to the model stipulation of [1, 4, 15, 18] who incorporated other control variables like inflation, labor, and capital in their model formulation and described the relationship between economic growth and exchange rate. Consequently, our model is constructed as follows:

$$LGDP_{it} = \alpha\, it + B_{1i}FIAD + B_{2I} LGCF + B3i\, LL + E^{\varepsilon t} \qquad (1)$$

where, $I = 1, 2... N$ symbolizes particular Somali economies across time, where $t = 1, 2,...,$ and T denotes time. The parameters 1, 2, and 3 reflect the long-run coefficients of gross capital formation (GCF), labor (L), as assessed by the GDP deflator, and t is the white noise error term.

The study evaluates the effect of foreign aid on Somalia's economic growth using the equations above. GDP per capita has been chosen as the dependent variable as a result. Foreign aid inflows have been considered one of the explanatory factors for Somalia on the right side of the equation. Foreign assistance predominately makes up the greatest source of foreign capital and has a substantial impact on economic

development [26, 27]. However, real GDP per capita levels and foreign aid inflows are not the same for all the region's chosen economies [4]. In order to avoid distorted findings, these asymmetries between the regional economies must be addressed. Therefore, factors like labor (L) and GCF as a proportion of GDP have been used in our study as control variables. We have included the GDP deflator as one of the explanatory variables to account for economic stability. Additionally, research like the one by Jena and Sethi [4] demonstrate that more developed financial markets make it easier to control aid flows, increasing the efficacy of help. In addition, sophisticated financial markets have a positive effect on economic expansion [20]. Therefore, we have included domestic credit to the private sector as a percentage of GDP as one of the explanatory variables to account for the interaction between financial sector developments on economic growth through the channel of greater foreign assistance efficacy. To check for model specification problems, a suitable econometrics test, such as "White's heteroscedasticity test with the cross term," has been implemented. The test results show that the model is free of bias or specification error.

Finally, the study estimates the coefficients of the co-integrating vectors using the co-integrating regression techniques FMOLS and DOLS. It is also important to note that since these techniques are well-known and the subject of much discussion in the literature, we won't analyze their functional form separately in order to conserve time and space. Author discusses about the outcomes of using the aforementioned techniques.

4. EMPIRICAL RESULTS AND ANALYSIS

Researcher provides the findings of this empirical study in this section. The descriptive statistics of the data being considered are presented first (see Table 2). The summary statistics of the pertinent factors taken into account for this empirical study of Somalia from 1989 to 2017 are shown in Table 2. We observe that the dependent variable LRGDP has a mean value of 20.849 and a standard deviation of 0.174, and that it fluctuates regularly from 20.578 to 21.140. Table 2 displays a matrix of correlation coefficients for several factors. We note that there is a positive correlation between our main variables—the per capita GDP and foreign aid—and that this correlation is statistically significant. Further econometric research is motivated by this positive connection between the variables.

Table 2. Descriptive statistics

	LRGDP	LGFK	LL	LSWEDEN_AID	LUK_AID	LUS_AID
Mean	20.84920	19.32830	0.772189	16.49852	16.60974	17.92559
Median	20.85547	19.30447	1.020041	16.37583	16.28021	18.02808
Maximum	21.14040	19.66457	1.333698	18.23254	19.71038	20.00992
Minimum	20.57770	19.08406	-1.271585	14.33430	13.90169	15.06254
Std. Dev.	0.174211	0.165733	0.698894	1.072186	1.804460	1.440943
Skewness	-0.079208	0.327467	-1.946445	0.026133	0.226699	-0.442681
Kurtosis	1.888203	2.051849	5.731872	2.156491	1.652278	2.074565
Jarque-Bera	1.523937	1.604581	27.32974	0.863039	2.443157	1.982024
Probability	0.466747	0.448301	0.000001	0.649521	0.294765	0.371201
Sum	604.6267	560.5207	22.39348	478.4570	481.6825	519.8422
Sum Sq. Dev.	0.849785	0.769084	13.67667	32.18830	91.17017	58.13689
No. Observations	29	29	29	29	29	29
LRGDP	1.00					
LGFK	0.84**	1				
LL	0.03**	-0.32**	1			
LSWEDEN_AID	0.64**	0.24**	0.13**	1		
LUK_AID	0.84	0.53	0.08	0.87	1	
LUS_AID	0.57**	0.44**	-0.34**	0.61**	0.75**	1

The paper does an empirical investigation using a wide range of econometric methodologies. Since the study focuses on 28 years of annual time-series data, it is crucial to solve the non-stationary problem, which is why multiple panel unit root tests are conducted. The panel unit root test results for different tests at both levels and the initial differences are shown in Table 2. For the level and first differenced series of these variables for the two categories of individual intercept and individual intercept and trend, unit root statistics are presented. All of the variables are level non-stationary and first difference stationary, according to the unit root tests. To do that, author must first determine the ideal lag time. The right lag must be selected in order to use advanced econometric techniques like co-integration tests, hence the best lag selection criteria are also used. The right lag must be selected in order to use advanced econometric techniques like the co-integration test, hence the best lag selection criteria are also used.

4.1 Unit root

Testing the stationary of time series data is necessary because if author estimates a non-stationary series, it may generate a spurious regression that provides misleading statistical evidence of a linear relationship between variables. The researcher used both Phillips Perron (PP) and Augmented Dickey-Fuller (ADF) techniques to examine the unit root problem. The alternative hypothesis demonstrates the absence of a unit root problem while the null hypothesis of ADF and PP demonstrates the series' non-stationarity, which indicates the presence of a unit root problem. Therefore, the t-statistic of the variable must be higher than the variable's given critical t-value in order to reject the null hypothesis that the data is non-stationary and fail to reject the null hypothesis that it is stationary. However, if we fail to reject the null hypothesis, the variables are non-stationary. The results of the unit root tests are displayed in Table 3 together with the integration order at level (I (0)) and the first difference level (I (1). As shown in Table 3, all the variables are non-stationary in the levels in both ADF and PP results. Therefore, at a level, all of the variables have a unit root, but they are stationary at the first difference level (I (1)) at conventional significance levels.

Because all the variables become stationary at the first difference (I (1)) and are free of unit root issues at the first difference, this suggests that a J & J co-integrating regression can be used. Given that ADF and PP show that our data is free of unit root issues, this suggests that a co-integrating

regression can be done comprehensively. The researchers chose three as the highest lag order because the study's sample is only 29 observations, and we subsequently decreased it to two and one until the ideal lag order is free of diagnostic errors and demonstrates model stability.

Table 3. Unit root tests

Variable	ADF		PP	
	Level		Level	
	Intercept	Intercept and trend	Intercept	Intercept and trend
LRGDP	-1.1105	-3.3372	-0.7323	-2.4095
LGFK	-1.7982	-2.3483	-2.0215	-2.4889
LL	- 2.5956	0.0003	-1.232433	-1.940227
LSWEDEN_AID	-1.5002	-2.2454	-1.5349	-2.4456
LUK_AID	0.0212	-1.4292	-0.0732	-2.1915
LUS_AID	-2.2902	-2.6729	-2.2619	-2.7365
	First difference		**First difference**	
	Intercept	**Intercept and trend**	**Intercept**	**Intercept and trend**
LRGDP	-3.1035**	-1.7743	-4.3597***	-5.3539***
LGFK	-4.5425***	-6.3256***	-4.5930***	-5.9453***
LL	-36.1846***	-27.6569***	-2.4102***	-2.1833***
LSWEDEN_AID	-5.3607***	-5.2509***	-5.3893***	-5.2568***
LUK_AID	-7.2577***	-7.3317***	-7.0871***	-7.2929***
LUS_AID	-6.3588***	-6.2810***	-6.3671***	-6.2912***

***, **, and * indicate significance level at 1%, 5%, and 10%, respectively ADF augmented Dickey-Fuller, PP Phillips–Perron

Table 4. Long run cointegration

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGFK	0.793565	0.021174	37.47802	0.0000
LL	0.104546	0.004398	23.77093	0.0000
LSWEDEN_AID	0.029506	0.006107	4.831909	0.0001
LUK_AID	0.004829	0.004868	0.991998	0.3320
LUS_AID	0.028169	0.002967	9.494761	0.0000
C	4.353799	0.422034	10.31622	0.0000

Author used the J & J co-integrating to regress for the long-run estimation (Table 4). Table 4 reflects the results after generating variables using J & J co-integrating method. The result shows that foreign aid in Sweden, US aid, capital, and labor are statistically substantial and have a positive association with economic growth and UK aid is statistically insignificant. This result is consistent with [1, 6, 21]. However, UK aid is not statistically significant which is consistent with this study [25] studied the relationship between foreign aid and economic development in West Africa: Examining Institutional Roles. The study uses the autoregressive distributed lag technique to analyze panel data from the World Bank's global development and governance indices, covering the years 1996 to 2017.

In time series analysis, a co-integration test can be performed once it has been established that the series have

achieved the first-order stationary and the number of lags. The Johansen co-integration test does not require the separation of the dependent and independent variables in the model. The data level results from the Johansen co-integration test are used for the analysis in Table 5 and Table 6.

4.2 Johansen co-integration test

After determining the ideal lags, we may proceed to determine the number of equilibrium relations that exist between the four variables (1 lag). For the Johansen co-integration test, the system under test has eight variables (LRGDPt, LGFKt, LLt, LSWEDEN AIDt, LUK AID, and LUS AIDt). The Maximum Eigenvalue and Trace tests, as summarized in the following table, must be run in order to conduct the test:

Table 5. Johansen cointegration test results

Trace			**0.05**			
Null hypothesis (H0)	Eigenvalue	Statistic	Critical Value	At 5%	Prob.**	decision
None *	0.942080	194.0291	95.75366	0.0000		accepted
At most 1 *	0.839513	117.1145	69.81889	0.0000		accepted
At most 2 *	0.648501	67.71684	47.85613	0.0003		accepted
At most 3 *	0.541525	39.48701	29.79707	0.0028		accepted
At most4 *	0.461314	18.43108	15.49471	0.0175		accepted
At most 5	0.062004	1.728257	3.841466	0.1886		Rejected

Trace test indicates a cointegrated relationship of 5%

Table 6. Unconstrained co-integration Eigenvalue Rank Test (Eigenvalue)

Hypothesized		Max-Eigen	5%		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**	decision
None *	0.942080	76.91452	40.07757	0.0000	accepted
At most 1 *	0.839513	49.39771	33.87687	0.0004	accepted
At most 2 *	0.648501	28.22982	27.58434	0.0413	accepted
At most 3	0.541525	21.05594	21.13162	0.0512	Rejected
At most 4 *	0.461314	16.70282	14.26460	0.0202	accepted
At most 5	0.062004	1.728257	3.841466	0.1886	Rejected

The maximum eigenvalue test indicates a co-integrated relationship at the level of 5%.

The results of the trace and Maximum Eigenvalue tests show that there is co-integration across variables since the null hypothesis of the absence of co-integration is rejected at the 5% level. Table 3 shows that the Max-Eigen test finds 3 co-integration equations at the 5% threshold, but the trace test finds 5 co-integration equations. Since there is just one co-integration connection.

5. DISCUSSION

The study findings indicate that Somali economic development is impacted by foreign aid in a variety of ways. Indeed, in Sweden and the US, foreign help has a positive, significant impact on economic growth, whereas in the UK, foreign aid has a negligible impact on economic growth and there is no correlation between foreign aid and GDP. the significant different between Sweden, the US aid and UK aid is because Swedish and American aid is more clearly tied to developmental projects than UK aid, which is primarily related to military aid. Therefore, UK aid does not have significant impact on economic growth in Somalia. Notwithstanding the fact that US aid also involves military assistance, but Swedish aid concentrates on development projects only.

The investigation of this study model's long-term parameters reveals a favorable effect of US and Swedish help on economic growth. In fact, a 1% increase in Swedish help corresponds to an improvement in GDP of 0.030%, but a 1% increase in US aid corresponds to an improvement in GDP of 0.028%. The outcome of this study supports these earlier studies [1, 21]. Additionally, capital and labor both help to boost economic growth in Somalia (Table 4), which may help to explain the association between aid and economic expansion. Thus, it follows that the flow of labor and capital has an impact on economic growth. However, the UK aid is not statistically significant which is consistent with this study [25]. Second, capital also has shown a positive relationship with the gross domestic product (GDP) which is consistent with the result of previous studies [28]. Finally, labor also indicates a positive impact on economic growth which is consistent with most previous studies that found labor has a positive impact on GDP [29].

6. CONCLUSION AND POLICY IMPLICATION

It is essential for policy development to improve and revitalize the economic shocks to conduct a thorough empirical study that examines the influence of foreign aid, capital, and labor on economic development in Somalia from 1989 to 2017. This study used the J & J co-integrating framework, which simulates long-run co-integration. This study's weakness is that it did not account for other significant macroeconomic variables that have an impact on economic growth. The factors that our study specifically left out of the model include exchange rate export and import, economic stability index, and foreign direct investment (FDI). However, due to the time limit and data availability concerns, and Somalia's over-decadal data constraint, these variables were not included.

According to the study's findings, the effects of Sweden, US, and UK aid, capital, and labor on economic growth are all long-run co-integrated. First, the relationship between Sweden's aid and long-term economic growth is noted. economic growth rises by 0.030% over time for every 1% increase in Sweden's aid. Long-term US aid affects economic growth as well. Long-term, an increase in US aid of 1% raises economic growth by 0.028%. Additionally, capital is seen to contribute to long-term economic growth. Long-term economic growth progress of 0.794 percent is induced by a 1% increase in capital, suggesting that capital growth is more responsive to economic growth. First, the sensitivity might be attributed to growth being more vulnerable to capital shocks as a result of having the greatest and newest technologies. Second, economic development is more susceptible to the increasing capital that has been used which results in economic development and prosperity for the country.

On the contrary hand, it appears that UK aid does not have a significant effect on economic growth as long the UK aid is mostly related to military aid rather than development aid. However, the bulk of past studies found that foreign influences economic growth favorably. This negative effect is primarily due to the underutilization of skilled workers in the local economy. In addition, in order to make sure that our results are accurate and free of bias and incorrect inferences, we performed a number of diagnostic and model stability checks in the estimated model. All diagnostic and stability tests verified the estimated model's dependability and consistency over the course of the investigation.

The study's conclusions have various policy ramifications. To improve the economy of the country by encouraging factors that contribute to economic development, the first step for the government should be to create a strong economic growth strategy that permits full participation of the commercial, public, and civil society sectors, as well as development partners, NGOs, farmers, and specialists during the planning and implementation phases. Also the government should prioritize where the foreign aid will be putting because if the aid concentrates more project developments that could contribute the economic development of the country. To use foreign aid for development rather than other things like securities, adaptation and intervention policies in this regard should design measures particularly to improve the capital or equipment used. The government needs to implement a plan to increase the labor force's abilities to achieve long-term economic growth. Finally, new economic growth strategies

must be created while taking into account all the variables that affect the country's economic growth, such as Sweden, US aid, capital, labor, and so forth.

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