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The Impact of Foreign Direct Investment Exchange Rate and External Debt on Economic Growth in Somalia (1991-2020)

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Abstract

This study examines the effect of foreign direct investment on the economic growth of Somalia. Data for the study are collected from the World Bank and IMF. The variables on which data are sourced include the gross domestic product (GDP), external debt, foreign direct investment, and exchange rate. Gross domestic product is the dependent variable while external debt, foreign direct investment, and exchange rates are independent variables. The scope of the study covers the period from 1991 to 2020 and data are analyzed using the ordinary least squares regression technique (OLS). The coefficient in the regression results

indicates that foreign direct investment exerts a significant positive influence on economic growth and the exchange rate has a significant negative impact on economic growth while the exchange rate has a negative impact on economic growth. Thus, the study recommends the government should continue to keep its open-door policy to FDI in the future. However, feasible measures should be taken to limit the disadvantages for domestic businesses.

Keywords: Foreign Direct Investment, Exchange Rate, External Debt, EconomicGrowth

1. Introduction

According to the International Monetary Fund (IMF), foreign direct investment is an investment made to acquire an enduring or long-term interest in firms operating outside the investor's economy (IMF 1993). The Organization for Economic Cooperation and Development defines it as a cross-border investment by a resident entity in one country with the goal of obtaining a long-term interest in a company 3 resident in another economy (OECD). It is a special type of cross-border capital movement identified in the balance of payments from a macroeconomic perspective. The direct investment enterprise gives the investor a large stake in the administration of the enterprise because of the long-term relationship. A direct investment isconsidered to be established when the direct investor owns 10% or more of an enterprise outside their home nation (Khaliq A., 2007.).

Greenfield investments, cross-border mergers and acquisitions (M&As), and joint ventures are all examples of how FDI might be

implemented. Both sides (Foreign Direct Investor and Host Country) are dedicated to contributing their talents and expertise to the investment operation, including market and bureaucratic knowledge, financial competence, and technological expertise (Moosa, 2002).

The impact of real exchange rates on economic growth has been one of the most essential issues for economists and policy-makers in recent decades. Nevertheless, a unified opinion has not been found in among empirical literature. Some studies argue that the real exchange rate depreciation would promote growth through a production shift from the non-traded sector to the traded sector (Belke, 2004).

The model developed by Mundell (1963) – Fleming (1962) suggests, assuming that the Marshall-Lerner conditions hold, that the depreciation or devaluation of the exchange rate stimulates growth. As the result of this traditional theoretical model, by promoting exports and making a replacement from imports to home products, the total demand would increase through the devaluation of the exchange rate (UNCTAD., 1999).

The external debt was an important stimulator of economic growth and a way to balance the budget. Moreover, public debt, especially foreign debt, has an independent existence outside the budget and public finances (Sulaiman, 2012).

Every country in the world works to achieve sustained economic growth and development, but to finance the optimal level of economic growth are in short supply in developing countries like Somalia; which is as a result of low domestic savings, low tax revenues, low productivity and meager foreign exchange earnings. Basically, for those reasons,

many developing resorts to external financing to bridge the gap between their savings and investments (Aminu, 2012).

The main objective of the study is to analyze the impact of foreign direct investmenton economic growth in Somalia from 1991-2020.

- To introduce the impact of FDI on economic growth in Somalia.
- To investigate the impact of the exchange rate on economic growth in Somalia.
- To explore the effect of external debt on economic growth in Somalia.

2.0 Related Work

Abdiaziz (2016) conducted a study analyzing the impact of foreign direct investment, foreign aid, and domestic investment on economic growth in Somalia. The research utilized annual data comprising 55 observations from 1970 to 2014. The study employed the ordinary least squares (OLS) regression analysis as the estimation technique to examine the relationship between the independent variables and the dependent variable. The findings of the study provided robust evidence supporting a positive influence of foreign direct investment, foreign aid, and domestic investment on economic growth. The paper concludes by discussing the implications of the results and presenting policy recommendations based on the findings. (Abdiaziz Ahmed Ibrahim, 2016).

Nguyen (2020) conducted a study with the objective of examining the effects of foreign direct investment (FDI) and international trade (exports and imports) on Vietnam's economic growth during the period of 2000-

2018. The study utilized secondary data obtained from the General Statistics Office of Vietnam. The analysis employed the ordinary least squares (OLS) method to investigate the impact of FDI, exports, and imports on Vietnam's economic growth. The empirical findings revealed a relationship between FDI, international trade, and Vietnam's economic growth, although each economic variable had a distinct impact. FDI demonstrated a positive and statistically significant influence on Vietnam's economic growth. Export also exhibited a positive and statistically significant impact on economic growth, while import had a negative effect that was not statistically significant. These results hold valuable implications for Vietnam's policy makers in the context of foreign economic relations. (NGUYEN, 2020).

Moudatsou (2003) presents an empirical analysis that explores the growth implications of foreign direct investment (FDI) in European Union (EU) countries, while considering other factors that contribute to growth. By utilizing data from 1980 to 1996, the study provides estimates of the growth effects of FDI for each individual country within the EU, as well as for the Union as a whole. The findings indicate that growth determinants differ among EU member states, and only past FDI inflows exhibit a significant impact on growth. Notably, when the data is aggregated, the empirical results demonstrate that FDI has a positive influence on the growth rate of EU economies, both directly and indirectly through trade reinforcement. Additionally, contrary to previous findings in developing economies, the study reveals that the growth effect of FDI in developed host countries is not contingent upon the level of human capital. (Moudatsou, 2003).

Akram (2017) conducted a research study with the primary objective of investigating the influence of exchange rate misalignment on economic growth in India. The study utilized annual data spanning from 1980 to 2014. Initially, misalignment was measured by assessing the deviations of the actual real exchange rate (RER) from its equilibrium level. The equilibrium real exchange rate (ERER) was estimated using the auto-regressive distributed lag (ARDL) model, considering key macroeconomic fundamentals that determine the RER. To test the stationarity of the data, the Zivot and Andrews' unit root with structural break method was employed.The impact of exchange rate misalignment on economic growth was analyzed using the ARDL and variance decomposition techniques. The findings of the study revealed that India experienced an overvaluation of the exchange rate until 2000, followed by an undervaluation thereafter. Furthermore, the results indicated that an increase in exchange rate misalignment resulted in a decrease in economic growth, while the opposite held true as well. Specifically, a positive misalignment (overvaluation) adversely affected economic growth, whereas a negative misalignment (undervaluation) promoted economic growth. (Akram, 2017).

Manasseh CO (2022) conducted a study that aimed to empirically investigate the influence of external debt on economic growth. The research utilized annual time series data, focusing on a selection of thirty Sub-Saharan African (SSA) countries from 1997 to 2020. The estimation technique employed in the study

was the Dynamic System Generalized Method of Moments, while also considering conventional factors affecting economic growth. The empirical findings of the study indicate that both external debt and the volatility of external debt have a negative and significant impact on economic growth in SSA. Additionally, the interaction between governance indicators, external debt, and its volatility displayed a positive influence on economic growth in the region. Based on these findings, the study recommends that governments in SSA should strive to avoid excessive external debt in order to enhance their capacity for financial investment. This approach would help mitigate the risks associated with loan repayment using limited income resources and allow for the promotion of the region's financial prospects. (Manasseh CO, 2022).

The paper by Koilo (2018) investigated the relationship between external debt and economic growth in emerging economies from 2006 to 2016. Utilizing econometric tools like the ADL model and correlation analysis, the study examines the impact of external debt on macroeconomic parameters. The regression results suggest a non-linear influence of external debt on economic growth in emerging economies. High levels of external debt, combined with macroeconomic instability, hinder economic growth. Additionally, the study identifies a critical threshold of debt burden, beyond which the marginal impact of external debt on economic growth becomes negative. These findings highlight the importance of effective public debt management strategies, particularly

in Ukraine, and emphasize the need for improved models and organizational support in managing public external debt. (Koilo, 2018).

Fatma (2014) presented a study that examines the impact of debt on the economic growth of 19 developing countries from 1990 to 2011 using a dynamic panel data model. The paper's second part focuses on empirically investigating how debt affects the contribution of investment to economic growth. The empirical tests conducted reveal a negative relationship between the total external debt to GDP ratio, as well as the external debt as a percentage of GNI ratio, and economic growth. Furthermore, the study identifies a negative interaction between these debt measures and investment in their effect on economic growth. (Fatma, 2014).

3.0 METHODOLOGY

Time series data was subjected to a linear regression analysis, where economic growth served as the dependent variable, while foreign direct investment, external debt, and exchange rate were considered as independent variables. The econometric software E-Views 10, which is widely employed for econometric data analysis, was utilized to conduct the data analysis.

3.1 Data Description

The data used in this study were collected from various secondary sources, including the World Bank, SESRIC, and the International Monetary Fund (IMF). To analyze the significant reforms and their impact on foreign direct investment (FDI) and

economic growth over an extended period, data spanning from 1991 to 2020 were gathered. The study also took into account the influence of different business cycles on the relationship between FDI and GDP. Additional periodic data were acquired based on published FDI data to ensure an adequate dataset for analysis.

3.2 Model Specification

The functional and econometric relationship between the dependent variable and independent variables are seen in the equation below:

$$GDP = F(FDI, EXR, EXD,)$$

GDP= gross domestic product.

FDI= foreign direct investment.EXR= exchange rate.

EXR= external debt

Thus the econometric model is:

$$LogGDP = \beta_0 + \beta_1 LogFDI + \beta_2 LogEXR + \beta_3 LogEXD + \mu$$

Where LGDP is gross domestic product (dependent variable); β_0 is constant β_1, β_2, β_3 are slope coefficients that measure the marginal increment of LFDI, LEXD and LEXR are a foreign direct investment, exchange rate, and external debt (independent variable); μ is the error term or residuals.

4.0 Findings

4.1 Descriptive Statistics

Descriptive statistics of the data series are shown in table 4.1. Descriptive statistics of GDP, external debt (EXD), the exchange rate (EXR), and foreign direct investment (FDI). The distribution of a series can be determined by evaluating various statistical measures as indicated in table 1.

Table.1. Descriptive statistics

	LGDP	LFDI	LEXR	LEXD
Mean	21.76726	16.16464	9.501605	21.81093
Median	21.59946	17.63749	9.6811	21.7772
Maximum	22.6642	19.9554	10.37036	22.44887
Minimum	21.30885	10.59663	8.242756	21.61797
Std. Dev.	0.443008	3.28132	0.647377	0.208687
Skewness	0.860787	-0.334555	-0.676762	2.170606
Kurtosis	2.200169	1.574006	2.165667	6.942102
Jarque-Bera	4.50443	3.101459	3.160176	42.98285
Probability	0.105166	0.212093	0.205957	0
Sum	653.0179	484.9391	285.0482	654.3278
Sum Sq. Dev.	5.691423	312.2447	12.15383	1.262954
Observations	30	30	30	30

In this study, a total of 30 observations were included, involving four variables (one dependent and three independent variables), which were transformed into logarithmic form to facilitate result interpretation. The range was determined by calculating the difference between the maximum and minimum values. For instance, the maximum value of LGDP was 22.6642 million US dollars, while the minimum value was 21.30885 million US dollars, resulting in a range of 1.01178 million US dollars. The standard deviation, which indicates the dispersion of values from the mean, was crucial for evaluation purposes. Notably, the data revealed that foreign direct investment exhibited a larger spread compared to the other variables. Specifically, GDP had a standard deviation of 0.443008, external debts had a standard deviation of 0.208687, and the exchange rate also had a standard deviation of 0.208687.

4.2 Regression Analysis

A classical linear regression model was applied using the Ordinary Least Squares (OLS) method. The regression aimed to examine the relationship between the dependent variable GDP and the independent variables: external debt (EXD), exchange rate (EXCR), and foreign direct investment (FDI). The findings of the regression analysis are presented in table 2.

Table.2 Regression Analysis

Dependent Variable: GDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.634399	6.422393	0.410190	
FDI	0.066446	0.023026	2.885705	
EXR	-0.032367	0.110204	0.293703	
EXD	-0.813870	0.309274	2.631551	
R-squared	0.682224	Mean dependent var		21.76726
Adjusted R-squared	0.645557	S.D. dependent var		0.443008
S.E. of regression	0.263745	Akaike info criterion		0.295899
Sum squared resid	1.808599	Schwarz criterion Schwarz criterion		0.482725
Log likelihood	-0.438479	Hannan-Quinn criter		0.355666
F-statistic	18.60620	Durbin-Watson stat		0.403282
Prob(F-statistic)	0.000001			

The regression analysis was conducted using a dataset consisting of 30 observations, and the results indicate that the overall model is statistically significant, as evidenced by the F-statistic's probability value of 0.0000. The R-squared value, at 0.682224, suggests that approximately 68.2% of the variation in the dependent variable (GDP) can be explained by the independent variables.

The coefficients for foreign direct investment display a positive sign, indicating a positive relationship with GDP. Conversely, the coefficients for the exchange rate and external debt exhibit a negative sign, indicating a negative impact on GDP. The coefficient for foreign direct investment

(0.066446) is statistically significant, as its associated p-value of 0.0078 is below the chosen significance level of 5%. Therefore, the null hypothesis can be rejected in this case. Similarly, the coefficient for external debt (-0.032367) is also statistically significant, with a p-value of 0.0141 below the chosen significance level. However, the coefficient for the exchange rate (-0.813870) is not statistically significant, as its p-value of 0.7713 is greater than the chosen significance level. Consequently, the null hypothesis cannot be rejected for the exchange rate variable.

4.3 Post Estimation Test

These tests are performed on the specified model to ensure that the model does not violate the OLS assumptions. The first test is the Recursive Estimate (OLS) test to check on specification errors and omission of variables in the model. This is followed by a heteroskedasticity test, normality test, multicollinearity test, and serial correlation test on the residuals.

4.3.1 Recursive Estimation (OLS) test for specification errors

This test was carried out to test the overall suitability of the model and confirm if there were some variables omitted from the model. The test results are as shown in Figure 1.

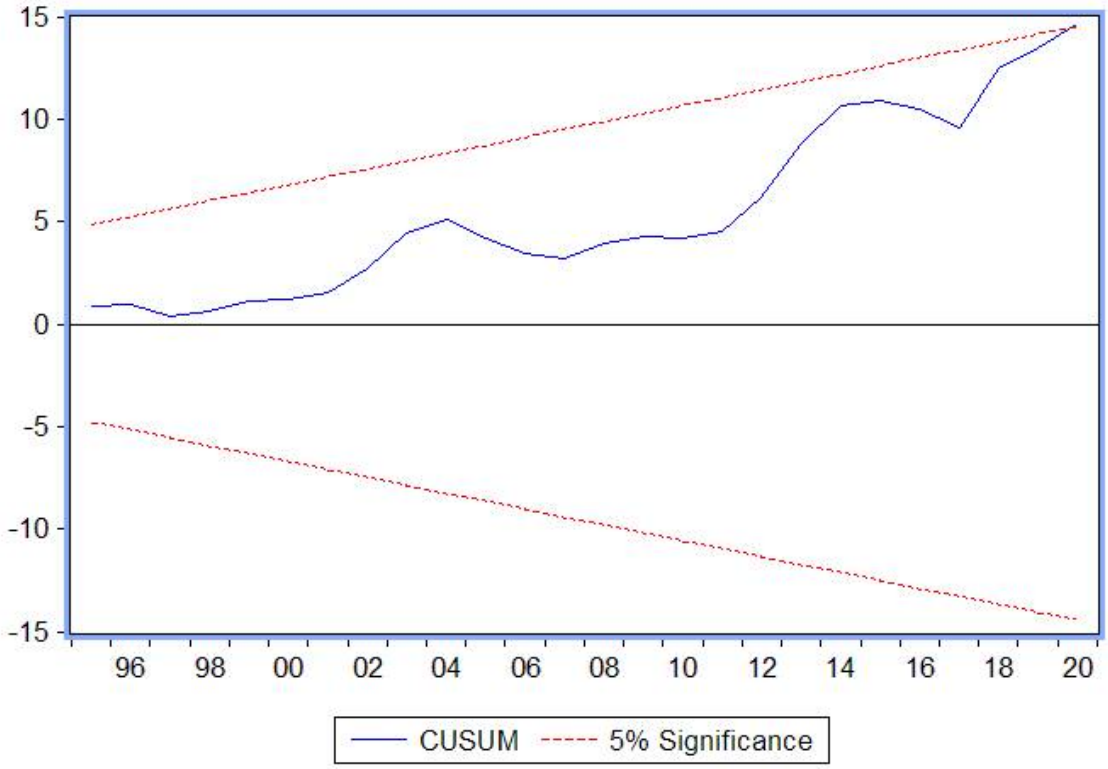

Figure 1 Recursive Estimation

To assess the stability of the long-run parameters, the study employed the cumulative sum of recursive residuals (CUSUM) and CUSUM of recursive squares (CUSUMSQ) methods. Figure 1 illustrates the cumulative sum of recursive residuals. If the plot of the test falls within the critical limits, the null hypothesis cannot be rejected at a 5% level of significance. This indicates that the model exhibits reliability and efficiency, as it remains within the upper and lower critical limits. Consequently, the findings suggest that the model is stable.

4.3.2 Heteroskedasticity test

The assumption of the OLS requires that the variance of the error test is constantUsing Breuch-Pagan test results are as shown in table 3.

Table 3. Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.140822	Prob. F(3,26)	0.9346
Obs*R-squared	0.479667	Prob. Chi-Square(3)	0.9233
Scaled explained SS	0.582776	Prob. Chi-Square(3)	0.9004

The OLS assumption necessitates constant variance of the error term (homoskedasticity). To verify if our model satisfies this assumption, we conducted a test. The p-value for the Breush-Pagan-Godfrey test for heteroskedasticity (0.9233) indicates that the hypothesis of heteroskedasticity is rejected. As a result, we accept the null hypothesis of homoskedasticity since the p-value is statistically insignificant at a 5% level of significance. These findings provide confirmation that the null hypothesis of a constant variance in the model is accepted.

4.3.3 Serial Correlations

The assumptions of model fitting need an examination of the connection between a given variable and itself over various time intervals to assess the presence of serial correlation, which is frequently found in reiterating patterns and specifies that the value of a variable affects its future value. Breusch-**Godfrey Serial Correlation LM Test**:

Table 4. Serial Correlations

F-statistic	1.510293	Prob. F(2,23)	0.2419
Obs*R-squared	3.366450	Prob. Chi-Square(2)	0.1858

In order to examine the presence of serial correlation, the Breusch-Godfrey test, developed by Trevor Breusch and Leslie G. Godfrey, was

employed. The results of the Breusch-Godfrey serial correlation LM test indicated that the model exhibited no serial correlation, indicating that the error terms were not autocorrelated. The obtained p-value of 0.1858 was greater than the predetermined significance level of 5%, leading to the acceptance of the null hypothesis. Hence, it can be concluded that there is no evidence of serial correlation.

4.3.4 Normality Test

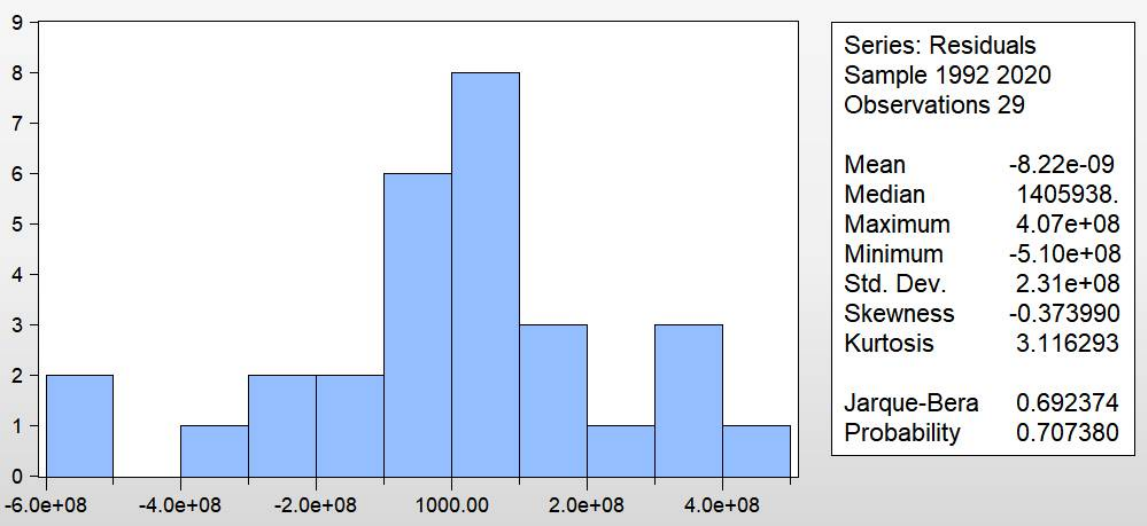

Figure 2. Normality Test

To ensure accurate and unbiased results, it is essential to conduct normality tests. In this study, before proceeding with the analysis of the focal variables, namely EXD, EXR, FDI, and GDP as the dependent variable for economic growth, a normality test was conducted on the multivariate items. Various techniques, including histogram analysis and the Jarque-Bera test, were employed to assess normality. The Jarque-Bera test is a goodness-of-fit test that examines whether the skewness and kurtosis of the sample data conform to a normal distribution. The

results indicated that the data followed a normal distribution. Consequently, further analysis was conducted using parametric tests. The corresponding p-value for the Jarque-Bera test was calculated as 0.707380, which is higher than the significance level of 0.05. Therefore, the null hypothesis (H0) was accepted, indicating that the error terms exhibited a normal distribution.

4.3.5 Multicollinearity Test

Variance Inflation Factors (VIFs) are a method of detecting the severity of Multicollinearity by looking at the extent to which a given explanatory variable can be explained by all other explanatory variables in an equation measuring the level ofcollinearity between the regressors in an equation. VIFs show how much of the variance of a coefficient estimate of regresses has been inflated due to collinearity with the other regressors. In addition, they can calculate by simply dividing the variance of a coefficient estimate by the variance of that coefficient had other regressors not been included in the table below.

Table 5. Multicollinearity Test

Variable	Coefficient	Uncentered	Centered
	Variance	VIF	VIF
D(FDI)	1.825573	1.252794	1.026963
D(EXR)	1.83E+08	1.061569	1.014405
D(EXD)	0.007945	1.040076	1.017757
C	2.69E+15	1.302859	NA

This model is not suffering from Multicollinearity because the values of the centered VIF are less than 10.

5. Discussion of Findings

The primary aim of this study was to investigate how foreign direct investment (FDI) impacts economic growth in Somalia. The analysis utilized annual time-series data spanning from 1991 to 2020. Linear analysis techniques were employed to examine the variables.

Over the past three decades, from 1991 to 2020, Somalia has undergone a remarkable transformation in its economy. It has transitioned from being a poor and underdeveloped nation to becoming one of the most rapidly developing countries globally. The annual time-series data used in this research project was obtained from reputable sources such as the World Bank, SESRIC, and IMF.The study included a total of 30 observations, considering four variables: one dependent variable and three independent variables. To facilitate interpretation, the variables were transformed into logarithmic form. The range was determined by calculating the difference between the maximum and minimum values. For instance, the maximum value of LGDP was 22.6642 million US dollars, while the minimum value was 21.30885 million US dollars, resulting in a range of 1.01178 million US dollars. Evaluating the spread of values from the mean, it was observed that foreign direct investment exhibited a larger dispersion compared to the other variables. Specifically,

GDP had a standard deviation of 0.443008, external debt had a standard deviation of 0.208687, and the exchange rate also had a standard deviation of 0.208687.

The regression analysis was conducted using the 30 available observations, and the results demonstrated that the overall model was statistically significant, as indicated by a probability value of 0.0000 for the F-statistic. The R-squared value was high at 0.961728, suggesting that approximately 96% of the variation in the dependent variable (GDP) could be explained by the explanatory variables. The coefficients for foreign direct investment displayed a positive sign, indicating a positive relationship with GDP. In contrast, the coefficients for the exchange rate and external debt were negative, indicating a negative impact on GDP. The coefficient values were as follows: foreign direct investment (11.07443), external debt (-0.112073), and exchange rate (-12580.76).

The stability of long-run parameters is examined by applying the cumulative sum ofrecursive residuals (CUSUM) and CUSUM of recursive squares (CUSUMSQ).Figure 4.1 demonstrate the cumulative sum of recursive residuals. The null hypothesiscannot be rejected at a 5% level of significance if the plot of the test falls within the critical limits. This shows the reliability and efficiency which lies between the upperand lower critical limits. This implies that the model is stable.

The assumption of Ordinary Least Squares (OLS) requires a constant variance of the error term, known as homoscedasticity. To verify if our model meets this assumption, we conducted a test. The p-value from the Breusch-Pagan-Godfrey test for heteroscedasticity (0.9233) indicates that the hypothesis for the presence of heteroscedasticity is rejected. Consequently, we accept the null hypothesis for the existence of homoscedasticity since the p-value is statistically insignificant at a 5% level of significance. These results confirm that we accept the null hypothesis, indicating that the model exhibits a constant variance.

To test for serial correlation, we employed the Breusch-Godfrey test developed by Trevor Breusch and Leslie G. Godfrey. The results of the Breusch-Godfrey serial correlation LM test indicated that the model was free from serial correlation, suggesting that the error terms were not autocorrelated. The obtained p-value of 0.1858 was greater than the chosen significance level of 5%, leading to the acceptance of the null hypothesis. Therefore, we conclude that there is no serial correlation.

Moreover, normality tests are crucial to ensure unbiased conclusions and to avoid distorting the results. Prior to further analysis of the focal variables (EXD, EXR, and FDI) and economic growth using GDP as the dependent variable, a normality test was conducted on the multivariate items. Various techniques, including histogram analysis and the Jarque-Bera test,

were employed to assess normality. The results indicated that the data followed a normal distribution. Consequently, further analysis was conducted using parametric tests. The corresponding p-value for the Jarque-Bera test was calculated as 0.707380, which is higher than the chosen significance level of 0.05. Therefore, we accept the null hypothesis (H0), indicating that the error terms exhibit a normal distribution.

Finally, the model does not suffer from Multicollinearity, as the values of the centered VIF (Variance Inflation Factor) are less than 10.

6. Conclusion:

Based on the analysis conducted, this study aimed to examine the impact of foreign direct investment (FDI) on economic growth in Somalia using annual time-series data from 1991 to 2020. The results revealed several key findings. Firstly, Somalia has experienced significant economic transformation over the past three decades, transitioning from a poor and underdeveloped nation to one of the fastest-growing countries globally. The data used in this study were obtained from reputable sources like the World Bank, SESRIC, and IMF.

The regression analysis demonstrated that the model was statistically significant, with a probability value of 0.0000 for the F-statistic. The high R-squared value of 0.961728 indicated that approximately 96% of the variation in GDP, the dependent variable, could be explained by the explanatory variables.

Notably, foreign direct investment exhibited a positive relationship with GDP, as indicated by the positive coefficient value of 11.07443. Conversely, the exchange rate and external debt had negative coefficients, suggesting a negative impact on GDP. The values for exchange rate and external debt coefficients were -12580.76 and -0.112073, respectively.

Furthermore, the stability of long-run parameters was assessed using the cumulative sum of recursive residuals (CUSUM) and CUSUM of recursive squares (CUSUMSQ). The plot of the test fell within the critical limits, indicating that the model was stable.

7. Recommendations:

Based on the findings of this study, the following recommendations can be made:

1. Encourage and attract foreign direct investment: Given the positive impact of FDI on economic growth, it is important for Somalia to continue implementing policies that attract foreign investors. This can be achieved by improving the investment climate, providing incentives, and ensuring a stable and secure business environment.
2. Manage exchange rate and external debt: The negative coefficients of exchange rate and external debt suggest a potential negative impact on GDP. Therefore, it is crucial for the government to effectively manage the exchange rate and external debt levels to minimize their adverse effects on economic growth. This can be achieved through prudent fiscal and monetary policies, debt management strategies, and

promoting export-oriented industries.

3. Maintain macroeconomic stability: Macroeconomic stability plays a vital role in attracting investment and fostering economic growth. It is essential for the government to maintain stable economic conditions, control inflation, manage fiscal deficits, and implement sound monetary policies.
4. Continue monitoring and improving data quality: Accurate and reliable data are essential for robust economic analysis. Therefore, efforts should be made to improve data collection and ensure the availability of high-quality data for future research and policy formulation.
5. Conduct further research: While this study provides valuable insights into the relationship between FDI and economic growth in Somalia, further research should explore additional factors that may influence economic growth. This can include variables such as infrastructure development, human capital investment, political stability, and institutional quality.

By implementing these recommendations, Somalia can further enhance its economic growth prospects and continue its path towards development and prosperity.

Suggestions for the future research

Additional research is essential to challenge the validity of these findings as policymaking should not solely rely on a single study. It is crucial for future researchers to delve into the factors influencing foreign

direct investment in Somalia. Moreover, upcoming studies can explore the relationship between economic growth and foreign direct investment using alternative models beyond OLS regression. This is necessary because the current study did not account for significant structural changes that may impact the relationship between these variables. Additionally, we suggest conducting similar studies in other countries to enable comparative analysis and facilitate the generalization of findings regarding the connection between foreign direct investment and economic growth.

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