



The Impact of Inflation, Exchange Rate, Trade and Foreign Direct Investment on Economic Growth Of The Gambia: Evidence From ARDL Approach

Salim Minteh, Amadou Gissay*, Ebrima Khan

Faculty of Economics and Business, Universitas Islam International Indonesia (UIII)

DOI:

<https://doi.org/10.47134/jmsd.v2i3.658>

Correspondence: Amadou Gissay

Email: madougisseh@gmail.com

Received: 18-01-2025

Accepted: 21-02-2025

Published: 30-03-2025



Copyright: © 2025 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Abstract: The study investigates the relationship between Foreign Direct Investment (FDI), trade flows, inflation rates, and exchange rates in relation to economic growth in The Gambia during the period from 1970 to 2023. The investigation aims to examine both long-term and short-term macroeconomic interrelations between these variables to determine their effects on GDP. The research employs the Auto Regressive Distributed Lag (ARDL) methodology to demonstrate a sustainable long-term relationship between trade, inflation, FDI, and exchange rates with GDP. The statistical analysis reveals a dual effect: inflation and trade lead to GDP increases, while FDI and exchange rates result in GDP decreases. The investigation finds no significant causal relationships between the variables to predict future trends based on past observations. The study faces limitations due to reliance on limited data sources and its focus mainly on The Gambia, making generalization to other contexts challenging. The Gambia presents an economic system that requires official policies to support trade activities and control inflation while addressing the negative effects of FDI on domestic business investments. This research study provides significant economic insights into The Gambia and its important macroeconomic relationships.

Keywords: FDI, Trade, Inflation, Exchange Rate, Economic Growth

Introduction

The Gambian economy grew at an annual rate of 3.94% from 1968 to 2017, with a GDP of 964.6 million USD, resulting in one of the lowest income levels among its sub-regional counterparts. According to analysis by the Gambia Bureau of Statistics (GBOS), the economy is driven primarily by the service sector, which contributes 57%, followed by agriculture at 22% and industry at 15% which are all sometimes affected by macroeconomic factors and external shocks. However, in recent years, economic growth has been sustained by developments in tourism, along with remittance inflows and re-export operations. The country remains vulnerable to international economic disturbances due to its heavy reliance on external transactions affecting tourism industry which serves as a primary source of

foreign exchange, providing essential support for national growth trajectories. Additionally, national growth experienced a contraction in 2016 as a result of political instability during the 2016-2017 transition, compounded by various external crises leading to decreased number of tourists visiting to 20% below projected figures, yet still exceeded visitor statistics from 2014-2015 (Mendy, 2019). The Gambia's GDP has fluctuated significantly in recent years, with a slight decline of 0.08% in 2020 due to the COVID-19 pandemic, followed by impressive growth rates of 11.5% in 2021, 7.9% in 2022, and 0.58% in 2023. Understanding these trends is essential, as foreign direct investment (FDI) plays a crucial role in economic growth. Notably, FDI has historically increased market competition and access to global markets, with a significant rise from 60 million to 1.3 billion in the mid-1980s. Additionally, a study by Ugomma and Chijioke (2024) highlights a positive relationship between inflation, exchange rates, and economic growth, explaining 92% of the variation in GDP.

Consequently, previous studies highlighted that foreign direct investment (FDI) increases market competition and expands access to global markets for exported goods. According to a UNCTAD report from 2018, there was a significant rise in FDI in The Gambia, increasing from 60 million to 1.3 billion in the mid-1980s (et al., 2022). Exchange rates and inflation are also key macroeconomic factors influencing economic growth. A study by Ugomma & Chijioke (2024) assessed the impact of inflation and exchange rates on Nigeria's GDP using a multiple linear regression model. Their findings demonstrate a positive and significant relationship between inflation, exchange rates, and economic growth, accounting for 92% of the variation in GDP. This underscores the importance of these macroeconomic factors in driving economic development. Inflation is a complex issue, particularly challenging to study in developing countries like The Gambia, as it is influenced by numerous factors. A high level of inflation can distort investment decisions and impact consumption patterns. Furthermore, if there is no effective strategy to control inflation, it may lead to reduced output and increased unemployment (Lowe, 2019). Historically, since gaining independence, The Gambia operated under a fixed exchange rate, pegging the Dalasi to the pound sterling. In 1986, the introduction of the Structural Adjustment Programme brought about an inter-bank floating exchange rate regime, which initially led to the depreciation of the Dalasi before its appreciation again in 1987.

In addition, efforts to deepen the foreign exchange market included the establishment of foreign exchange bureaux and the licensing of non-bank foreign exchange dealers in 1987, which increased market competition. During the 1990s, the Dalasi remained relatively stable despite periods of depreciation, influenced by various economic and political issues. Inflation rates decreased from 56.6% in 1986 to more stable levels in subsequent years, and the exchange rate of the Dalasi significantly contributed to the

country's economic performance, fostering stability and growth (Tarawalie, A. B., Sissoho, M., Conte, M., and Ahoritor, 2012).

Therefore, this makes these studies of great importance as it will capture some macroeconomic factors which were not captured by previous researchers such as the study conducted by Gibba & Molnar (2013) examining the impact of exports and sectoral contributions to economic growth, focusing on short-term frames, neglecting the entire period from 1970 to 2023. Additionally, studies by Mam Kumba Gaye & Dr. Matarr Njie (2023) evaluated the impact of foreign direct investment on economic growth but did not fully integrate the effects of exchange rates, trade, and inflation. Therefore, this paper aims to fill that gap by offering a comprehensive analysis of how these macroeconomic factors—specifically inflation, exchange rates, trade, and foreign direct investment—impact economic growth in The Gambia.

Literature Review

Previous studies, such as those by Keynes, define true inflation as a situation whereby any further increase in effective demand does not boost output but solely raises its unit cost in direct proportion to the demand increase. Keynes uses the theory of demand-pull inflation to explain how heightened effective demand—such as increases in government expenditure or consumer expenditure—can drive up prices without a corresponding rise in output. He argues that inflation will always arise whenever aggregate demand exceeds aggregate supply, particularly when effective demand increases beyond full employment. Additionally, Keynes expands on the quantity theory of money to clarify how variations in supply relate to changes in price levels. Ming-Tang (2020) conducted studies on the roots of inflation in The Gambia and his findings suggest that inflation can significantly impact the economy by reducing the purchasing power of its currency. This raises the prices of goods and services and undermines the competitiveness of domestic products in global markets. Moreover, inflation often leads to economic inequality within the country, a lower standard of living, and a reduction in foreign investment and economic growth. Additionally, inflation negatively affects people's well-being, especially those with low incomes, by making essential items like food, housing, and healthcare less affordable. Similarly, inflation increases the production cost, when reducing profits and complicates the achieving of investment objectives (Sowe et al., 2023). Barro (1995) conducted a study using data ranging from 1960 to 1990 to investigate the impact of inflation on economic performance and his findings stated that a 10% increase in inflation per year will lead to a decrease in the real GDP growth per capita by 0.2-0.3%, meaning that inflation has a negative effect on economic growth. Consequently, high inflation diminished the purchasing power, discourages investment and spending thereby creating uncertainty. This

will decline the overall economic growth and productivity which results to a low standard of living.

However, the interaction between inflation and GDP plays an important role in examining the path of the economy in countries. Studies have suggested that high levels of inflation will diminish purchasing power and discourage both foreign investment and domestic investment thereby hindering economic growth. A high inflation raises the price of goods and services and reduces economic activity, it also creates economic uncertainty and increases costs which reduces the profit margins, creating an increase of risk in investment which discourages growth and development (Yuliawan et al. 2024). Conversely, Hwang & Wu (2011) argued that moderate inflation has a positive impact on economic growth, while high inflation hinders economic growth. Suggesting that maintaining a moderate inflation rate is crucial for sustainable long-term economic growth. Additionally, the real exchange rate is widely recognized as an indicator of international competitiveness. This serves as a measure of a country's currency competitiveness, with an inverse relationship existing between this index and competitiveness. In other words the lower the value of the real exchange rate index in a country, the higher the currency's competitiveness (Jayachandran, 2013). Moreover, there exist a positive correlation between foreign exchange rate and economic growth. Rodrik (2008) affirmed that high exchange rate can boost economic growth especially, developing countries, by expanding the tradable sector. This is as a result of maintaining a favourable exchange rate which is crucial to support economic development.

Additionally, there exist a slight negative relationship between exchange rate and economic growth. (Nwikina & Ekere, 2024) uses an ARDL model to investigate the impact of exchange rate on economic growth in Nigeria from the period of 1985 to 2021, his studies conclude that exchange rate has not played significant role in determining the overall economic growth in Nigeria. Furthermore, FDI brings an advantage to the host country's economy in terms of bringing advanced technology, enhancing the skill labour force and also contribute to the transfer of skilled labour force to the host country (Iqbal et al., 2013). This will lead to the overall economic growth of the country in increasing the productivity and also reduce the unemployment rate.

Foreign direct investment has been a key driver in speeding up the economic growth of India, as it facilitated the technology transfer, create jobs and enhancing the access to managerial skills, international capital and distribution of channels (Nisamudheen, 2013). Notably, when there is an economic growth, this signal expanding the markets and increased prosperity, this attracts foreign investors seeking for profitable opportunities (Iamsiraroj & Doucouliagos, 2015). Furthermore, economic growth reflects stability and confidence, reducing investment risk and enhancing investor confidence. Additionally,

growing economies tend to invest in infrastructure and development, which further attracts foreign direct investment by facilitating business operations and improving productivity. Moreover, research conducted in The Gambia highlights that access to larger markets, such as the Economic Community of West African States (ECOWAS) or the African Continental Free Trade Area (AfCFTA), can lead to the diversification of its exports.

This can be achieved through bilateral and international trade treaties, preferential trade agreements, and membership in regional economic communities, helping them capitalize on opportunities for market entry. Similarly, Keho (2017) & Kong et al. (2021) conducted research on trade openness and economic growth in China using ARDL model and his findings suggest that trade openness has a positive and significant effect on economic growth both in the short and long-run. Accordingly, Yu & Meng (2023) argued that trade plays a vital role in enhancing the output growth by improvement access to intermediate inputs, which leads 2.6 percent growth in industries that are more diversified in intermediate inputs in outward-oriented countries. Furthermore, Brueckner & Lederman (2015), conduct research on panel data evidence in Sub-Saharan Africa on trade openness and economic growth and his results found that a 1% increase in trade as a percentage of GDP induces 0.5% improvement of GDP per capita in the short-run and a 2 % increase in the GDP per capita in the long run. This shows that trade openness has a positive impact on economic growth in Sub-Saharan Africa. However, according to V. M. H. Nguyen et al. (2023) trade openness has a negative relationship with economic growth stability. He believed that underdeveloped countries could face huge tariffs that would affect demand and supply, as well as reduce the purchasing power of consumers due to increased prices of imported goods.

Research Method

Research Design

This paper focuses on a quantitative approach using Auto Regressive Distributed Lag (ARDL) to investigate the effect of FDI, trade, exchange rate and inflation on economic growth in The Gambia. This study uses secondary data downloaded from the World Bank database, period of 1971 to 2023. The author used Eviews-10 for data analysis hence it serves as the most convenient analysis tool compared to other statistical tools. The paper will present graphs, charts, and tables that will be used to present data.

Model Specification

According to Long et al. (2020), ARDL is a method proposed by Pesaran et al. (2001) to circumvent the problems inherent in the existing procedures. ARDL cointegration shows advantages for analysing variables of different orders of integration, and is robust when

identifying single long-run, relationship in small samples. Nevertheless, the failure occurs when the integrated stochastic trend of order I(2) co-exists. (Nkoro & Uko, 2016). Since the variables are integrated of different orders (I(0) and I(1)), We employ an ARDL model to examine the impact of inflation, exchange rate, trade, and FDI on economic growth of the Gambia due to its robustness in handling variables that are integrated of different orders. The study uses an approach similar to Masih (2021) and (Mansoor & Bibi, 2018). It is worth realizing that no need to transform the variables into logarithm form since they all expressed in percentage.

Express GDP as a function of the independent variables

$$GDP = f(infl, exchange\ rate, trade, fdi)$$

The ARDL Econometric model for the variables can be express as

$$GDP_t = \delta_0 + \delta_1 GDP_{t-1} + \delta_2 infl_t + \delta_3 exchange\ rate_t + \delta_4 trade_t + \delta_5 fdi_t + \varepsilon_t$$

Were

GDP_t is the gross domestic product product in percentage at time *t*

GDP_t is the lagged value of GDP

infl_t is the inflation , consumer price in annual percentage

exchange rate_t is the exchange rate at time

trade_t is the trade at time *t*

fdi_t is the foreign direct investment , net inflows as percentage of GDP at time *t*

ε_t is the error term at time *t* , captures the unexplained variations.

Below is the summary of the econometrics test used in this study.

ADF Test

We begin by testing for the existence of the unit root using the Augmented Dickey-Fuller (ADF) test which they are non-stationary. This will cause the errors to be correlated and the standard t-test will be wrongly calculated because the variance of the errors is not consistently estimated (Long et al., n.d.). In order to avoid such errors, we use first difference I(1) for the variables that were not stationary at level during testing. These variables include exchange rate, FDI and trade.

ARDL Regression Results

The ARDL regression result shows that trade and inflation provide a positive association with GDP while FDI and inflation show a negative association with GDP but none is statistically significant. This means that assuming all factors as constant, a 1% increase in trade and inflation will lead to a 1.1% and 6.9% respectively rise in GDP. Moreover, a 1% increase in FDI and the exchange rate will lead to 22.9% and 16.7% decline in GDP respectively.

F-bound test

The F-bound test is used to determine whether there exists a long-run relationship between the dependent and the independent variables.

Granger Causality Test

The Granger causality introduced by Engel and Granger (1989) is used to test for the causality relationship between variables. In the ARDL model, the Granger causality will tell us whether the past values of one variable will provide us an information when forecasting the future value of another variable

Furthermore, the use of stability, heteroskedasticity, and normality tests were applied in the study. The goal of the stability test is to know whether the relationship captured by the model remains stable and does not show significant variations across different time periods (Correa, 2023)

Result and Discussion

Table 1. Unit Root ADF Test Results

Variables	At Level ADF test statistics	First differences ADF test statistics	Order of Integration
	P-Values	P-Values	
GDP	-5.838607* (0.0000)	Not Needed	I(0)
Inflation	-4.06565* (0.0024)	Not Needed	I(0)
Exchange rate	1.614940 (0.9994)	-3.960430* (0.0033)	I(1)
Trade	-1.595699 (0.4777)	-8.482740* (0.0000)	I(1)
FDI	-2.290120 (0.1788)	-9.558292* (0.0000)	I(1)

Based on table 1, it can be seen that. The ARDL procedure is used to test for the stationarity of the variables to avoid selecting variables that are integrated of order 2, denoted as I(2). The table presents the results of the ADF test using a 5% significance level. The results indicate that GDP and inflation have an order of integration of 0, denoted as I(0). This finding is supported by (Correa, 2023). Meanwhile, the exchange rate, trade, and FDI have an order of integration of 1, denoted as I(1) as alluded by (Correa, 2023 & Lee, 2010) in their studies.

Table 2. Granger Causality Test

Null Hypothesis	Obs	F-statistics	T-statistics
Trade does not granger cause GDP	51	0.70866	0.4976
GDP does not granger cause trade		0.01935	0.9808
FDI does not granger cause GDP	51	0.90219	0.4127
GDP does not granger cause FDI		0.05060	0.9507
Exchange rate does not granger cause GDP	52	0.20360	0.8165
GDP does not granger cause Exchange rate		0.33130	0.7179
Inflation does not granger cause GDP	52	0.04576	0.9553
GDP does not granger cause inflation		0.23282	0.7932
FDI does not granger cause trade	51	1.25503	0.2946
Trade does not granger cause FDI		0.14716	0.8636
Exchange rate does not granger cause Trade	51	0.07050	0.9320
Trade does not granger cause exchange rate		0.15716	0.8550
Inflation does not granger cause trade	51	0.23542	0.7912
Trade does not granger cause inflation		0.37775	0.6875
Exchange rate does not granger cause FDI	51	1.47496	0.2394
FDI does not granger cause exchange rate		0.29814	0.7436
Inflation does not granger cause FDI	51	0.32987	0.7207
FDI does not granger cause inflation		0.17644	0.8388
Exchange rate does not granger cause inflation	52	0.49436	0.6131
Inflation does not granger cause inflation		0.48375	0.6195

Based on table 2, it can be seen that, the Granger causality introduced by Engel and Granger (1989) is used to test for the causality relationship between variables. In the ARDL model, the Granger causality will tell us whether the past values of one variable will provide us an information when forecasting the future value of another variable. The findings agreed with Correa (2023), which in his study, did not identify any causal relationship between unemployment, GDP and inflation. Likewise, Amoah et al. (2015), in his study, did not identify any causation between FDI, exchange rate and GDP. However, the outcome contradicts this study done by Khan et al. (2015) on Pakistan causality analysis, the study shows that there exists a bi-directional relationship between exchange rate, FDI and GDP. Likewise, Koulakiotis et al. (2012), findings reveal that there exists a causal link between inflation and GDP. ÖZEN ATABEY & KARAKUŞ (2022), Granger causality test find a bidirectional relationship between trade and GDP.

Table 3. F-Bound Test

Test Statistics	Value	Signif.	I(0)	I(1)
Asymptotic n=1000				
F-Statistics		10%	2.2	3.09
K	4	5%	2.56	3.49
		1%	3.29	4.37

Based on table 3, it can be seen that, the F-bound test evaluated the co-integration association between variables in the ARDL model. The results of the F-bound test show that the estimated F-test value of 10.94842 exceeds both the lower bound of integrated I(0) and the upper bound of integrated I(1), with values of 2.56 and 3.49 respectively. This result indicates that there exists a co-integration association between variables. The study is in line with D. T. H. Nguyen et al. (2017), which demonstrate a long run relationship between trade, inflation and GDP. Additionally, the findings of M. M. Mostafa (2020), study on the effectiveness of the exchange rate in Pakistan, show that there exists a long-run equilibrium relationship between the exchange rate and FDI and between the exchange rate and GDP.

Table 4. Error Correction Model (Short Run)

Variable Name	Coefficient	S.E	t-statistics	P-Value
C	4.088216	0.9428	4.3363	0.0001
GDP (-1)	-1.076739	0.1375	-7.8321	0.0000
Exchange rate (-1)	-0.541925	0.3501	-1.5481	0.1289
FDI*	-0.22599	0.2600	-0.8693	0.3895
Inflation*	0.058202	0.0583	0.9976	0.3241
Trade*	0.011023	0.0414	0.2660	0.7915
D(Exchange rate)	0.115589	0.2790	-0.4143	0.6807
D(Exchange rate(-1))	0.726385	0.2847	2.5517	0.0144
CointEq(-1)*	-1.0767	0.1257	-8.5632	0.0000

Based on table 4, it can be seen that, the result in ECM estimation shows that the error correction term is negative and statistically significant at 5% level. This indicates that the variables have a lasting association. The value of the coefficient (-1.0767) suggests that a deviation from the long-run equilibrium is corrected at a rate of 107.67% per period. The short-run coefficients of the independent variables show that FDI and exchange rate are negatively correlated with GDP, but not statistically significant. This shows that a 1% increase in FDI and exchange rate will lead to 22.6 and 11.6% decrease in economic growth. Furthermore, regarding inflation rate and trade, the study reveals a positive relationship with GDP. However, none is statistically significant. the result agreed with the findings of

Md. G. Mostafa & Wadud (2024) and Sharma & Karol (2020) , The finding reveal that FDI has a negative impact on GDP in the short run. Similarly, with findings of Mwiya et al. (2024),and Barguelli et al. (2018), which shows that exchange rate has negative effect on GDP. The results of (Adu-Gyamfi et al., 2020 which reveals that inflation has a positive impact on growth in the short run. Owusu-Manu et al. (2019) found that FDI has a negative relationship with GDP, and Olasehinde & Ajayi (2022) findings show that FDI and exchange rate have a negative relationship with GDP. However, the study contradicts the result of Correa (2023) on the effect of unemployment, inflation, and FDI on economic growth in Sub-Saharan Africa shows inflation is detrimental to economic growth while FDI has a favourable relationship with economic growth.

Table 5. Error Correction Model (Long Run)

Variable	Coefficient	S.E	t-statistics	P-Value
Exchange rate	-0.5033	0.3278	-1.5354	0.1320
FDI	-0.2099	0.2444	-0.8586	0.3953
Inflation	0.0541	0.0543	0.9955	0.3251
Trade	0.0102	0.0386	0.2655	0.7919
Constant	3.7968	0.7413	5.1220	0.0000

EC=GDP-(-0.5033* Exchange rate -0.2099*FDI + 0541* Inflation + 0.0102* Trade + 3.7968)

Based on table 5, it can be seen that, the table shows the long run relationship between independent (inflation, FDI, trade and exchange rate variables and GDP in the long run. The results shows that exchange rate and FDI though not statistically significant have a negative impact on economic growth in the long run. Meaning a 1% increase in exchange rate and FDI will lead to a decline in economic growth by 50.3% and 20.99% respectively keeping all factors constant. Whiles trade and inflation have a positive impact on economic growth in the long run, but not statistically significant. Held all factors constant, a 1% increase in trade and inflation will lead to a rise in GDP by 5.41% and 1% respectively. The result is in line with the findings of (Majumder & Roy, 2023 which shows that FDI has a negative impact on GDP in the long run. Kumar et al. (2023),Findings shows that inflation has a positive impact on economic growth of BRICS nations. However, this finding contradicts the study done by Lee (2010) to investigate the causal relationship between trade, FDI, exchange rate and economic growth in the Gambia from the period of 1980 to 2021, shows that there exists a positive relationship between trade, exchange rate and FDI on GDP. Olasehinde & Ajayi (2022) findings reveal that FDI and exchange rate positively impact GDP in the long run.

Furthermore, the positive impact of inflation on economic growth in the Gambia can be due to some factors like the threshold effect on inflation, where inflation can be a favorable factor to promote growth before reaching its detrimental stage where it becomes harmful to growth. Likewise, the Gambia’s sensitivity to global commodity prices, this can promote the influence of inflation and growth. Additionally, the negative impact of FDI on economic growth, this is due to the crowding out of the domestic investors in the Gambia, and also the low value-added activities by the international investors. Probably there might be some other factors that can explain the negative impact but the researcher traces these factors as the major cause.

Table 6. Diagnostic Test

Test Name	P-value	Null Hypothesis	Discussion
RAMSEY RESET	0.1904	No Functional Form	Do not reject the Null
Test for Heteroskedasticity	0.7967	No Heteroskedasticity	Do not reject the Null
Test for serial correlation	0.6925	No serial correlation	Do not reject the Null
Test for Normality	0.54304	Data normally distributed	Do not reject the Null

Based on table 6, it can be seen that, the result of the residual diagnostic of the above test shows that there is no serial correlation or heteroskedasticity in the model. Since the p-values of the results are greater than 5% significant level. Therefore, the null hypothesis on the serial correlation and heteroskedasticity cannot be rejected. The Jaque-Berra test for normality indicates that the residuals is normally distributed since the p-value (0.54) is greater than the 5% significant level. This lines with the results of Correa (2023) which reveal that the study does not encounter any issues with serial correlation, heteroskedasticity, and normality. Also testing for the RAMSEY’s RESET test shows that the model is adequately define since the p-value of 0.1904 which is greater than 5% significant level. We therefore cannot refute the null hypothesis of 5% significant level. this indicates that there is no evidence of misspecification in the ARDL model.

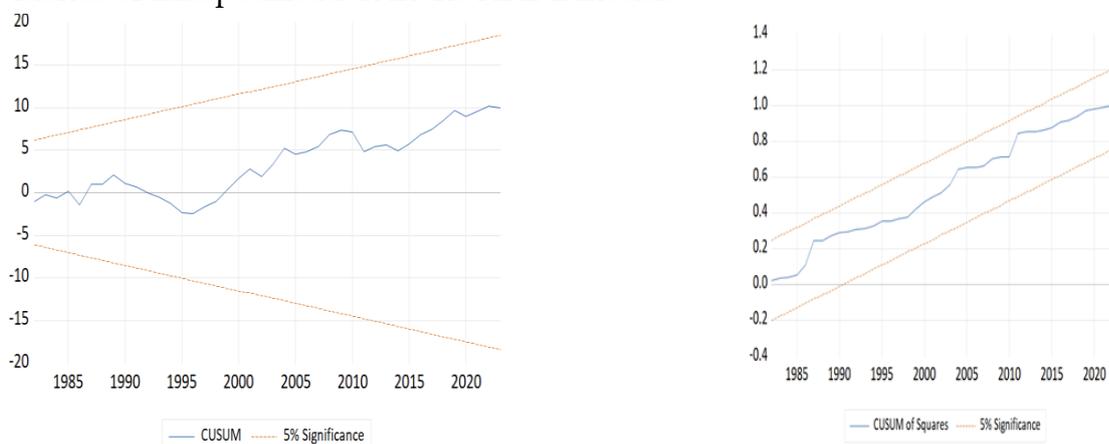


Figure 1. Cusum Square and Test Graph

Cusum Square Test graph

Based on Figure 1, it can be seen that, we used the Cumulative Sum (CUSUM) and Cumulative Sum of square (CUSUMSQ) to test for the stability of our ARDL model. Since the test lines at 5% significant level are all inside the critical points, we therefore conclude that our ARDL model is stable at 5% significant level

Conclusion

The study investigates the impact of foreign direct investment (FDI), inflation, trade, and exchange rates on the economic growth of The Gambia using annual data from 1970 to 2023. The analysis reveals that all variables have a unit root, and the Granger causality test did not identify any statistically significant relationships among them, indicating that past values of one variable do not significantly improve the prediction of another, suggesting independence among the variables. However, the F-bound test shows a long-run relationship between trade, inflation, exchange rates, FDI, and GDP. The F-bound cointegration test confirms a lasting relationship among the variables, with FDI and trade exhibiting negative short- and long-run effects on economic growth, while trade and inflation show positive effects in both time frames.

The positive impact of inflation on growth may be attributed to factors such as the inflation threshold effect, where inflation can initially promote growth before becoming detrimental, as well as sensitivity to global commodity prices. Conversely, the negative correlation between FDI and economic growth may stem from the crowding out of domestic investors and low value-added activities that do not significantly impact growth. These findings carry important policy implications for The Gambia. While recent studies have highlighted the benefits of FDI and stable exchange rates, this research suggests that The Gambia should implement policies to improve FDI inflows, stabilize exchange rates, increase trade, and manage inflation effectively. Investments in advanced technologies and partnerships with local businesses should be prioritized to attract high-quality FDI. A prudent monetary policy, along with stable foreign exchange reserves, will enhance investor confidence. Expanding trade infrastructure and entering regional trade agreements can boost export competitiveness. Effective inflation management will depend on sound monetary policies and close monitoring of global commodity prices. The aim of these recommendations is to leverage the positive effects of trade and inflation while mitigating the adverse impacts of FDI and exchange rate volatility to facilitate sustainable economic growth and stability. Further research should explore the diversity across West African countries, as varying economic structures, resource endowments, and policy environments mean that the findings of this study may not directly apply to other nations in the region. Investigating country-specific factors alongside localized research would enhance the

understanding of the connections between inflation, trade, exchange rates, FDI, and GDP growth. This approach could lead to tailored policy recommendations for each nation by examining various economic elements and policy settings, ultimately increasing the relevance and application of research findings.

References

- Adu-Gyamfi, G., Nketiah, E., Obuobi, B., & Adjei, M. (2020). Trade Openness, Inflation and GDP Growth: Panel Data Evidence from Nine (9) West Africa Countries. *Open Journal of Business and Management*, 08(01), 314–328. <https://doi.org/10.4236/ojbm.2020.81019>
- Amoah, E., Nyarko, E., & Asare, K. (2015). FDI, INFLATION, EXCHANGE RATE AND GROWTH IN GHANA: EVIDENCE FROM CAUSALITY AND COINTEGRATED ANALYSIS. *European Scientific Journal, ESJ*, 11.
- Barguelligil, A., Ben-Salha, O., & Zmami, M. (2018). Exchange Rate Volatility and Economic Growth. *Journal of Economic Integration*, 33(2), 1302–1336. <https://doi.org/10.11130/jei.2018.33.2.1302>
- Barro, R. (1995). Inflation and Economic Growth. <https://doi.org/10.3386/w5326>
- Boburmirzo, K., & Boburjon, T. (2022). Exchange Rate Influence on Foreign Direct Investment: Empirical Evidence From Cis Countries. *International Journal Of Management And Economics Fundamental*, 02(04), 19–28. <https://doi.org/10.37547/ijmef/volume02issue04-04>
- Brueckner, M., & Lederman, D. (2015). Trade Openness and Economic Growth: Panel Data Evidence from Sub-Saharan Africa. *Economica*, 82(s1), 1302–1323. <https://doi.org/10.1111/ecca.12160>
- Correa, E. (2023). Effect of Unemployment, Inflation and Foreign Direct Investment on Economic Growth in Sub-Saharan Africa. *Journal of Developing Economies*, 8(2), 297–315. <https://doi.org/10.20473/jde.v8i2.47283>
- Gibba, A., & Molnar, J. (2013). A study on exports as a determinant of economic. *Some Studies of Economics Changes*, ISBN 978-80-89691-27-2, 237–244.
- Hwang, J., & Wu, M. (2011). Inflation and Economic Growth in China: An Empirical Analysis. *China & World Economy*, 19(5), 67–84. <https://doi.org/10.1111/j.1749-124X.2011.01259.x>
- Iamsiraroj, S., & Doucouliagos, H. (2015). Does Growth Attract FDI? *Economics*, 9(1). <https://doi.org/10.5018/economics-ejournal.ja.2015-19>
- Iqbal, N., Ahmad, N., Haider, Z., & Anwar, S. (2013). Impact of Foreign Direct Investment (FDI) on GDP: A Case Study from Pakistan. *International Letters of Social and Humanistic Sciences*, 16, 73–80.

<https://doi.org/10.18052/www.scipress.com/ILSHS.16.73>

- Jayachandran, G. (2013). Impact of Exchange Rate on Trade and GDP for India: A Study of Last Four Decade. *International Journal of Marketing, Financial Services & Management Research*, 2(9), 154–170.
- Keho, Y. (2017). The impact of trade openness on economic growth: The case of Cote d'Ivoire. *Cogent Economics & Finance*, 5(1), 1332820. <https://doi.org/10.1080/23322039.2017.1332820>
- Khan, R. E. A., Sattar, R., & Rehman, H. (2015). Effectiveness of Exchange Rate in Pakistan: Causality Analysis. *ERN: International Finance (Topic)*.
- Kong, Q., Peng, D., Ni, Y., Jiang, X., & Wang, Z. (2021). Trade openness and economic growth quality of China: Empirical analysis using ARDL model. *Finance Research Letters*, 38, 101488. <https://doi.org/10.1016/j.frl.2020.101488>
- Koulakiotis, A., Lyroudi, K., & Papasyriopoulos, N. (2012). Inflation, GDP and Causality for European Countries. *International Advances in Economic Research*, 18(1), 53–62. <https://doi.org/10.1007/s11294-011-9340-1>
- Kumar, S., Kumar, A., Shaikh, G. M., Ali, K., & Azhar, M. (2023). The Long Run Impact of Exchange Rate and Inflation on GDP: A Panel Data Approach Consistent with Data from Brazil, Russia, India, China, And South Africa (BRICS). *Journal of Economic Impact*, 5(3), 317–326. <https://doi.org/10.52223/econimpact.2023.5318>
- Lee, C.-W. P. A. M. (2010). A causal relationship between trade, foreign direct investment and economic growth for India. *International Research Journal of Finance and Economics*, 42(200), 74–88.
- Long, M., Relationship, R. U. N., & Dynamic, U. A. (n.d.). MODELLING LONG RUN RELATIONSHIP.
- Lowe, A. B. (2019). The Impact of Exchange Rate on Inflation: A Case Study of The Gambia(1978-2016). *European Scientific Journal ESJ*, 15(10), 261–277. <https://doi.org/10.19044/esj.2019.v15n10p261>
- Majumder, T., & Roy, S. S. (2023). FDI and Growth: A Re-look at Evidence on Developing Economies. *Arthaniti: Journal of Economic Theory and Practice*. <https://doi.org/10.1177/09767479231163654>
- Mam Kumba Gaye, & Dr. Matarr Njie. (2023). Impact of Foreign Direct Investment on Economic Growth in the Gambia: Evidence from Time Series Analysis. *The International Journal of Business & Management*. <https://doi.org/10.24940/theijbm/2023/v11/i4/BM2304-020>
- Mansoor, A., & Bibi, T. (2018). Dynamic Relationship Between Inflation, Exchange Rate, FDI and GDP: Evidence from Pakistan. *Acta Universitatis Danubius. Œconomica*, 15(2), 431–444.

- Masih, M. (2021). Testing the long-run relationship between exchange rate, oil price, FDI and GDP: an ARDL approach.
- Mendy, S. (2019). on the Inflation Growth Nexus : Evidence From Time Series Methods in the Gambia Master ' S Thesis on the Inflation Growth Nexus : Evidence From Time Series Methods in the Gambia.
- Ming-Tang, L. (2020). Keynes's Theory and Inflation. *Keynes's Theory and Inflation*, 10.
- Mostafa, M. M. (2020). Impacts of Inflation and Exchange Rate on Foreign Direct Investment in Bangladesh. *International Journal of Science and Business*, 4750, 53–69. <https://doi.org/10.5281/zenodo.4108244>
- Mostafa, Md. G., & Wadud, Md. A. (2024). Impacts of Remittance and FDI on Economic Growth in South Asian Countries: A Panel Data Analysis. *International Journal of Science and Business*, 40(1), 92–106. <https://doi.org/10.58970/IJSB.2446>
- Mwiya, T., Simaundu, B. M., Nyau, M., & Phiri, J. (2024). Assessing the Effects of Exchange Rate Volatility on Zambia's Economic Growth: Evidence from ARDL and NARDL Models. *Economies*, 12(9), 224. <https://doi.org/10.3390/economies12090224>
- Nguyen, D. T. H., Sun, S., & Anwar, S. (2017). A long-run and short-run analysis of the macroeconomic interrelationships in Vietnam. *Economic Analysis and Policy*, 54, 15–25. <https://doi.org/10.1016/j.eap.2017.01.006>
- Nguyen, V. M. H., Ho, T. H., Nguyen, L. H., & Pham, A. T. H. (2023). The Impact of Trade Openness on Economic Stability in Asian Countries. *Sustainability*, 15(15), 11736. <https://doi.org/10.3390/su151511736>
- Nisamudheen, T. (2013). Role of FDI in Indian Economy. 3, 1–10.
- Nkoro, E., & Uko, A. K. (2016). Autoregressive Distributed Lag (ARDL) cointegration technique: application and interpretation. *Journal of Statistical and Econometric Methods*, 5, 1–3.
- Nwikina, C. G., & Ekere, E. U. (2024). Impact of Exchange Rate on Economic Growth: Evidence from Nigeria. *Global Journal of Arts, Humanities and Social Sciences*, 12(3), 36–50. <https://doi.org/10.37745/gjahss.2013/vol12n33650>
- Olasehinde, I. O., & Ajayi, C. F. (2022). Foreign Direct Investment and Nigerian Economic Growth. *Journal of Applied And Theoretical Social Sciences*, 4(3), 313–327. <https://doi.org/10.37241/jatss.2022.69>
- Owusu-Manu, D.-G., Edwards, D. J., Mohammed, A., Thwala, W. D., & Birch, T. (2019). Short run causal relationship between foreign direct investment (FDI) and infrastructure development. *Journal of Engineering, Design and Technology*, 17(6), 1202–1221. <https://doi.org/10.1108/JEDT-04-2019-0100>
- ÖZEN ATABEY, A., & KARAKUŞ, M. (2022). Türkiye'ye Yönelik Enflasyon, Dış Ticaret ve Ekonomik Büyüme İlişkisinin Ampirik Analizi. *Cumhuriyet Üniversitesi İktisadi ve*

- İdari Bilimler Dergisi, 23(3), 747–759. <https://doi.org/10.37880/cumuiibf.1096489>
- Rodrik, D. (2008). The Real Exchange Rate and Economic Growth. *Brookings Papers on Economic Activity*, 2008(2), 365–412. <https://doi.org/10.1353/eca.0.0020>
- Sharma, S., & Karol, S. (2020). THE IMPACT OF INWARD AND OUTWARD FLOW OF FOREIGN DIRECT INVESTMENT (FDI) ON ECONOMIC GROWTH IN INDIA: AN ECONOMETRIC ANALYSIS.
- Sowe, A., Mohsin, M. I. A., Economics, M. M.-I. J. of I., & 2023, U. (2023). Analysing the Roots of Inflation in the Gambia: an Islamic Approach To Resolving the Issue. *Ijiefer.Kuis.Edu.My*, 6(2), 110–120.
- Tarawalie, A. B., Sissoho, M., Conte, M., and Ahorator, C. R. (2012). Exchange rate, inflation and macroeconomic performance in the West African Monetary Zone (WAMZ). *WAMI Occasional Paper*, 32(2), 32–51.
- Ugomma, C. A., & Chijioke, S. C. (2024). Assessing the Impact of Inflation and Exchange Rate on Nigerian Gross Domestic Product (1981-2022). *Asian Journal of Probability and Statistics*, 26(5), 30–41. <https://doi.org/10.9734/ajpas/2024/v26i5616>
- Yu, J., & Meng, S. (2023). How Does Trade Openness Affect Output Growth? A Perspective from the Input Diversity. *Sustainability*, 15(11), 9039. <https://doi.org/10.3390/su15119039>
- Yuliawan, R., Murdiawati, M., Faqih, M., Haris, R. A., & Sulistyawati, A. (2024). The Impact of Monetary Policy, Inflation Rates, and Foreign Direct Investment on Economic Growth in Developing Countries. *Join: Journal of Social Science*, 1(4), 373–380. <https://doi.org/10.59613/gjq7cm27>