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# Topic: The Impact of Inflation on Economic Growth in Sub-Saharan Africa Countries

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**ABSTRACT**
One of the ways that countries encourage sustained economic growth and enhance the purchasing power of their domestic currency is by prioritizing price stability in their monetary policy. This research examines inflation's impact on economic growth in Sub-Saharan African nations. Furthermore, it investigates whether it promotes or hinders economic growth uniformly or behaves differently atypical levels.
The study aims to offer detailed insights into the relationship between inflation and economic growth in Sub-Saharan African countries through empirical analysis. The research examines inflation's impact on economic growth in sub-Saharan African nations.
All variables included in this research are derived from World Development Indicators.
The dependent variable in this study is Economic Growth, represented as Gross Domestic Product per capita. The primary variable is inflation, whereas the supporting variables include trade, population growth, and gross capital formation. The study encompassed 21 Sub-Saharan African nations (Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Chad, Côte d'Ivoire, Gabon, Ghana, Guinea, Kenya, Madagascar, Mali, Mauritania, Mauritius, Namibia, Sierra Leone, Uganda, and Zimbabwe) for the period from 2008 to 2022.
The study first utilized Ordinary Least Squares (OLS) before implementing Fixed Effects, Random Effects, and Generalized Least Squares (GLS). Empirical evidence indicates that inflation hinders economic growth in Sub-Saharan African nations. All models employed to assess the findings show a consistently significant negative effect on economic impact.
The research recommends that policymakers always create policies to control inflation to at least a single digit, increase trade, control population growth, and improve gross capital formation.

**Keywords:** Inflation, Economic, Growth, and Sub-Saharan Africa

## 1. INTRODUCTION

The link between inflation and economic growth is crucial in economic research, particularly in developing countries like those in sub-Saharan Africa. These countries encounter varied economic circumstances, obstacles, and multiple factors that affect their growth. As sub-Saharan African countries strive for sustainable development in the context of global economic volatility, comprehending the impact of inflation on economic growth is becoming increasingly critical. The economic growth of African countries has been profoundly impacted by numerous crises. Researchers are especially concentrated on determining elements that facilitate or obstruct economic growth, while reaching consensus proves

challenging (Impin and Kok, 2021). The importance of economic growth has prompted numerous studies to comprehend its determinants for effective policy formulation. Economic growth benefits the citizens of a country, particularly in sub-Saharan regions, since it can result in diminished poverty, enhanced health, increased life expectancy, higher standards of living, expanded employment opportunities, reduced unemployment, and boosted political stability. Economists frequently associate sluggish economic growth with higher unemployment rates and increasing poverty (Impin and Kok, 2021).

The research's key focus is to analyze inflation's impact on economic growth in sub-Saharan African countries. This analysis is essential, as inflation can have different effects based on the present state of the economy. Moderate inflation typically correlates with expanding economies, whereas elevated inflation can diminish purchasing power and obstruct investment, potentially resulting in stagnation or collapse. This study intends to determine if inflation is a stimulant or a restraint on economic progress in Sub-Saharan countries. Numerous country-specific research has established different threshold levels; nonetheless, there is an increasing agreement that moderate inflation positively influences economic growth, whereas elevated inflation adversely affects it.

Additionally, Khan and Senhadji (2001) and Azam and Khan (2022) assert that persistent high inflation hinders economic growth by creating uncertainty, deterring capital investment, and obstructing overall progress in the economy. The study by Azam and Khan (2022) investigated the relationship between inflation and economic growth in a panel of 27 countries from 1975 to 2018. Their findings indicated that inflation rates above 12.23% in developing nations and 5.36% in developed economies, underscoring a significant threshold effect on economic growth.

In Africa, the discourse on the relation between inflation and economic growth in Africa has been a contentious topic among policymakers and macroeconomists, with numerous individuals questioning the potential negative impact of higher inflation rates on the continent's economic development. Many experts have observed a detrimental link between inflation and economic growth, especially in African nations. The most important question is if inflation is vital for economic expansion or if it obstructs it. Economic growth is primarily affected by the rate of capital formation, which is determined by savings and investment rates (Datta and Kumar, 2011). In Africa, economic growth and inflation rates have shown significant volatility. Inflation rates in the region have continuously exceeded growth rates for several years (Madhukar and Nagarjuna, 2011). The link between inflation and economic growth remains to be an essential macroeconomic concern. Furthermore, Ahmed (2010) contends that this relationship has been contested in numerous economic research, exposing anomalies in its correlation with the condition of the global economy. In this setting, higher general demand has led to increased output and inflation in Sub-Saharan Africa.

In Sub-Saharan Africa, higher inflation is linked to increased cost inconsistency, which might result in uncertainty regarding the expected efficacy of investment projects. This represents the pathway to a more conventional investment assessment that would otherwise prevail. Ultimately, it will result in diminished levels of investment and economic growth. High and fluctuating inflation is well recognized to affect economic growth and negatively affect welfare losses. The confrontation between Russia and Ukraine has resulted in a spike in global food prices, instigating a new wave of inflationary pressures in the global economy. This has significantly impacted economies in sub-Saharan Africa (SSA), where food constitutes a considerable share of the consumer basket. Consequently, a renewed interest has been in research investigating the relationship between inflation and economic growth.

The relationship between inflation and economic growth has been a major concern for financial professionals, government officials, and monetary regulators in both developed and developing countries, who want to comprehend how inflation affects economic performance. This matter has garnered considerable attention because of the persistent macroeconomic difficulties. Consequently, a country's financial authorities must prioritize the maintenance of relative stability (Anidiobu, Okolie, & Oleka, 2018). The primary goal of macroeconomic policies in Sub-Saharan Africa remains to attain sustained economic development alongside price stability. Countries foster sustained EG and enhance the purchasing power of their domestic currency by prioritizing price stability within their monetary policy (Umaru & Zubair, 2012). The correlation between inflation and economic growth has been a primary macroeconomic concern, garnering considerable interest from financial experts, policymakers, and monetary authorities in both developed and developing nations, as emphasized by researchers Ndoricimpa (2017) and Seleteng et al. (2013).

This research will also investigate several related inquiries to offer a comprehensive picture of the determinants influencing economic growth in sub-Saharan Africa. At first, it will assess whether inflation negatively or positively impacts economic growth. This investigation will elucidate the impact of pricing stability or instability on overall economic performance. Secondly, the effect of trade will be examined, specifically if enhanced trade activity positively influences EG in sub-Saharan Africa. Understanding trade dynamics is crucial for assessing economic potential and considering the region's incorporation into the global economy. Finally, the study will examine the ramifications of population development on economic growth, acknowledging that demographic shifts may profoundly influence labor supply, consumption, and investment trends.

This research seeks to provide significant insights into the discussion on EG in sub-Saharan Africa by addressing these critical questions. The results may enrich academic literature and offer practical recommendations for policymakers to address inflationary pressures and promote sustainable economic growth in many countries.

## 2. SELECTED EMPIRICAL LITERATURE REVIEW

A thorough literature review has investigated numerous empirical aspects of the relationship between inflation and EG. This section analyzes the literature regarding the influence of inflation on the economic growth of Sub-Saharan African nations.

Ezako's (2023) research examines the link between inflation and economic growth in Burundi, seeking to determine an optimal inflation threshold that would allow monetary authorities to respond adeptly to economic growth. The research use the ARDL technique and annual data from 1990 to 2020, demonstrating a significant inverse relationship between inflation and economic growth in the short run. Nonetheless, the study identifies positive and strong correlations among investment, household consumption, and the exchange rate with economic growth in the long term. The conditional least squares (CLS) method indicates the presence of an inflation threshold of 13%, beyond which inflation negatively impacts growth, estimated at 3.7%. Ezako advises that policymakers set an inflation threshold of 13%, synchronize monetary, fiscal, and budgetary policies, and improve investment while optimizing the production framework. Mavodyo, (2022). His paper investigates the prerequisites that amplify the growth-enhancing effects of economic globalization for sub-Saharan African nations from 2005 to 2020. The results indicate that economic globalization is desirable as a feasible engine for growth in sub-Saharan Africa, provided that country-specific structural deficiencies are addressed. Bangura et al. (2024) examine

the impact of inflation on Nigeria's economic growth from 1990 to 2021, specifically aiming to identify a threshold beyond which inflation significantly affects growth. This study also utilized an innovative method, the endogenous sample-splitting and threshold model established by Hansen (2000). The study analysis continues to uncover a nonlinear relation between inflation and EG in Nigeria, revealing a specific inflation threshold of 12.88%. When inflation remains below the threshold, it favors economic growth, while exceeding it hinders economic growth. Moreover, the study showed that increased trade openness negatively influences economic growth, while population growth positively promotes growth across all inflationary circumstances. Investments help stimulate economic growth in the linear model; their impact is statistically insignificant across the threshold regimes. Financial deepening hinders growth above the inflation threshold.

The study by Dammak et al. (2017) investigates the relationship between inflation and economic growth in Tunisia, spanning from January 1993 to November 2012. Their analysis identifies a distinct threshold for inflation in Tunisia, indicating that the correlation between inflation rates and economic growth is nonlinear. The study's findings demonstrate that an inflation rate under 3.48% fosters economic growth, however a statistically significant negative association between inflation rates and economic growth emerges when this barrier is exceeded. Bandura's (2020) study examines the impact of inflation on the relationship between financial development and economic growth in 23 Sub-Saharan African nations, utilizing a dataset averaged over five years from 1982 to 2016. The analysis identifies a crucial inflation threshold of 31%, above which the impact of financial development on economic growth shifts from positive to negative. The study by Ibrahim et al. (2022) investigates the relationship between inflation and the relation between financial development and economic growth, resulting in inconclusive findings that lack clarity. The authors contend that their research reassesses inflation's function as a mediator in this relationship through the analysis of panel data from 36 sub-Saharan African nations. The study by Ibrahim et al. (2022) use the sample splitting thresholds approach to examine the link between inflation and the influence of financial development on economic growth. Their findings reveal the existence of inflation thresholds at 7.65% and 6.76%, beyond which the impact of financial development on economic growth transforms. Financial development substantially enhances economic growth at low inflation rates; nevertheless, exceeding these limits yields a little effect. This indicates that rising inflation does not augment the growth-enhancing impacts of financial development. It is advised to keep inflation beneath the specified criteria to facilitate economic progress.

Ndoricimpa's (2017) research examines the non-linear connections between inflation and economic growth in Africa, employing a dynamic panel threshold regression method established by Kremer et al. (2013). The study indicates a non-linear relationship between inflation and economic growth throughout the continent. The research explores particular inflation threshold values: 6.7% for the overall sample, 9% for low-income nations, and 6.5% for middle-income nations. The regression study demonstrates that reduced inflation rates correlate with improved economic growth in African middle-income nations. The study by Ikwor et al. (2024) examines the relationship among Nigeria's inflation rate, monetary policy rate, and economic growth, employing a time series dataset from 1981 to 2022. The research investigates the effect of inflation on economic growth and the degree to which interest rates affect this growth. The researchers utilized a secondary data gathering method, implementing the Johansen cointegration test and the error correction model. The findings demonstrate that the relevant variables exhibit stationarity following the first difference, indicating a long-term link among them. The analysis identifies real GDP growth as the dependent variable, while inflation and interest rates serve as independent variables, and the

exchange rate and broad money supply function as control variables. The results indicate that the error correction model estimation demonstrates a negative and statistically significant effect of both inflation and interest rates on GDP at the 5% significance level. The study also emphasizes a positive and strong correlation between broad money supply and GDP, but the exchange rate does not exert a major influence on GDP. The authors conclude with recommendations, highlighting that inflation's detrimental effect on economic growth requires governmental intervention to mitigate inflationary pressures. This may entail the enforcement of more stringent monetary policies, like the elevation of interest rates or the modification of government expenditure, to stabilize prices and alleviate inflation.

The research conducted by Okoro et al. (2024) seeks to investigate the impact of inflation and stagflation on economic growth between 2012 and 2024. The authors contend that the Nigerian economy is presently experiencing stagflation, marked by sluggish growth, elevated unemployment, and increasing inflation. This research examines the impact of inflation and stagflation on Nigeria's growth potential by employing the autoregressive distributed lag (ARDL) model to analyze various variables, including real GDP, inflation rate, interest rate, exchange rate, economic openness, money supply, and government consumption over a defined timeframe. The results demonstrate that both inflation and stagflation negatively influence economic growth, whereas the other factors in the model do not significantly impact growth. Moreover, no causal relationship exists among inflation, the level of openness, and GDP. The paper advises monetary authorities to implement a pragmatic strategy to properly target inflation, alleviating its adverse impacts by sustaining a controllable rate that promotes economic growth. To ameliorate the economic condition, emphasis should be placed on augmenting both supply and demand.

Mallick (2008) evaluates the influence of inflation on economic growth in India from 1960 to 2005. Through cointegration approaches, he determines that elevated inflation rates substantially hinder economic growth, whereas investment exerts positive effects. He underscores the need of prioritizing price stability as a crucial element in attaining robust economic growth in emerging nations. The study by Zummo et al. (2023) examines the impact of inflation on Nigeria's economic growth from 1980 to 2022, utilizing five macroeconomic variables: economic growth, inflation, core inflation, interest rates, and the exchange rate. The researchers acquired annual time series data for these variables from the Central Bank Statistical Bulletin and utilized descriptive statistics and econometric analytical methods to fulfill their aims. The study initially conducted unit root tests employing the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests to assess the time series properties of the variables, indicating that all variables were initially nonstationary. Following the implementation of a first difference test, the variables demonstrated stationarity at either the level or the first difference. The research employed the Auto Regressive Distributed Lag (ARDL) model to determine the lag order, indicating a lag of 2 for all three models. The cointegration relationship among the variables was confirmed by the bounds testing method, signifying a long-term association. The analysis indicated that inflation, core inflation, and interest rates exerted no substantial influence on economic growth, however the exchange rate had a markedly ppositive effect. The study's findings indicate that managing inflation and sustaining or elevating interest and exchange rates is unnecessary for fostering economic growth.

The study by Onwubuariri et al. (2021) analyzed the impact of inflation on Nigeria's economic growth during a 40-year span, from 1980 to 2019. The researchers examined the correlation among the inflation rate, interest rate, exchange rate, and government expenditure, with gross domestic product (GDP) as the dependent variable. The research employed annual time series data from the World Development Indicators (WDI) published by the World Bank. The study utilized the Autoregressive Distributed Lag

(ARDL) and Error Correction Model (ECM) for data analysis. The findings indicated that inflation negatively impacted economic growth by diminishing competitiveness and undermining the purchasing power of the currency. The research indicated that inflation and currency fluctuations negatively impacted Nigeria's economic growth, although interest rates shown a positive connection. Additionally, the analysis revealed that government consumption exerted a minimal impact on economic growth. The researchers advised the Central Bank of Nigeria (CBN) to implement initiatives via the Monetary Policy Committee to substantially reduce the inflation rate. The study by Yakubu et al. (2023) examined the correlation among government expenditure, inflation, and economic growth in Nigeria, utilizing a 42-year time series dataset spanning from 1981 to 2022. The researchers utilized correlation analysis to develop the necessary model, designating Gross Domestic Product (GDP) as the dependent variable and government expenditure (GovEXP), inflation (INF), and foreign direct investment (FDI) as the independent variables. The study comprised three objectives and associated hypotheses, employing an ex-post facto research design. The investigation encompassed correlation analysis, the Autoregressive Distributed Lag (ARDL) Bound testing method, unit root tests utilizing the Augmented Dickey-Fuller approach, and ARDL cointegration to investigate both short-term and long-term correlations among the variables. The results demonstrated that government expenditure had a positive and considerable impact on Nigeria's economic growth in both the short and long term. Conversely, inflation negatively impacts long-term economic growth, whereas foreign direct investment strongly encourages economic growth in Nigeria. The study advises the government to augment its expenditure to support economic growth, suggesting that elevated inflation rates may indeed promote growth. The analysis indicates that augmenting government incentives for domestic investors could improve foreign direct investment.

Idris et al. (2017) examine Nigeria's inflationary trends to evaluate their impact on economic growth. The study utilizes a descriptive methodology, employing charts to depict inflationary patterns in relation to GDP growth, hence facilitating comprehension of the impact of inflation rates on Nigeria's economic growth objectives. The results demonstrate that prevailing inflationary trends in Nigeria obstruct the attainment of sustainable growth and development. A vital element in achieving ideal growth levels in Nigeria is the management of high inflation rates. The public sector must create a framework that incentivizes local producers to engage in new economic projects, promoting innovation and the manufacture of goods with a competitive edge in the global market. This strategy is anticipated to augment export volumes, elevate productivity and competitiveness, mitigate exchange rate volatility, generate employment, stimulate income growth and economic welfare, and markedly enhance fiscal discipline and macroeconomic growth. Mosikari et al. (2018) seek to determine the suitable threshold effect of inflation on the economy of Swaziland. The research used linear Ordinary Least Squares (OLS) and Two-Stage Least Squares (2SLS) methodologies to evaluate the effect of inflation on economic growth, employing annual data spanning from 1980 to 2015. The results from the linear OLS approach indicate that the ideal threshold level for inflation is 12%. Findings demonstrate that when the inflation rate surpasses this threshold, economic growth diminishes by 1.02%. Comparable results were noted employing the 2SLS methodology, indicating that inflation negatively affects growth when it exceeds 18.5%. These findings underscore the necessity for monetary authorities in Swaziland to keep inflation below the threshold required for attaining sustainable long-term economic growth. The study by Tenaw et al. (2020) examines the threshold effect of inflation on economic growth in Ethiopia from 1975 to 2018. The research employs a Two-regime Threshold Auto-regressive (TAR) model to examine this relationship. This research differentiates itself from prior studies by determining inflation threshold values pertinent to the food and

non-food industries. Preliminary evaluations suggest that inflation within the food sector exhibits increased variability, reduced persistence, and a more significant impact on overall inflation compared to the non-food sector. The results from the TAR model and robustness assessments indicate an inflation threshold ranging from 9% to 10%. The criterion for food inflation is 10%, whereas for non-food inflation, it is 8%. The results repeatedly demonstrate the negative impact of inflation on growth when surpassing certain threshold levels. This study underscores the necessity of examining the divergent behaviors of food and non-food prices and implementing efficacious fiscal and monetary policies to curtail inflation to a single-digit rate.

## 3. DATA AND METHODOLOGY

### 3.1 Data

This study employs data from the World Development Indicators to examine the correlation between economic growth and inflation in 21 Sub-Saharan African cpuntries. The dependent variable of the study is economic growth, quantified as Gross Domestic Product (GDP) per capita. The main variable of interest is inflation, with supporting variables comprising trade, population growth, and gross capital formation. The study spans 14 years, from 2008 to 2022, and includes a diverse cohort of 21 countries, such as Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Chad, Côte d'Ivoire, Gabon, Ghana, Guinea, Kenya, Madagascar, Mali, Mauritania, Mauritius, Namibia, Sierra Leone, Uganda, and Zimbabwe, covers the years 2008 to 2022.

### 3.2 Econometric Strategy

The research employed Ordinary Least Squares (OLS), Fixed Effects, Random Effects, and Generalized Least Squares (GLS) models. The combination of these models for an in-depth study of the link between inflation and economic growth. Each model offers unique insights and helps to address different aspects of the data. The OLS provides a baseline understanding, fixed effects capture country-specific effects Over time, random effects enable the incorporation of time-invariant variables, and GLS addresses issues related to heteroskedasticity and autocorrelation.

The model proposed below investigates inflation's impact on economic growth in Sub-Saharan Africa.

$$GDP_{it}=\beta_0 + \beta_1 Inflation_{it}+\beta_2 Population_{it}+\beta_3 Trade_{it}+\beta_4 GCF_{it}+\varepsilon_{it}$$

Where

$GDP_{it}$ is Gross Domestic Product per capita in country i at time t

Inflation is measured in the consumer price index. Population is population growth annually, trade is a percentage of GDP, and the annual growth rate of constant local currency quantifies Gross Capital Formation (GCF).

$\beta_0$ is constant, $\beta_1$ to$\beta_4$ are the coefficients of the variables

$\varepsilon_{it}$ is the error term.

**Table.1 Variables Description**

| Variable Name | Type of Variable | Definition of Variable | Measurement |
|---|---|---|---|
| Gross Domestic Product Per Capita | Dependent variable | The average economic productivity per person. It is calculated by dividing a nation's economic output by its Population. | It is measured annually per capita in monetary units (USD). |

| | | | |
|---|---|---|---|
| Inflation | Independent variable | The rate of overall price increases for goods and services reduces buying power. | They are expressed as a rise in the percentage of a pricing index (such as the Consumer Pricing Index). |
| Trade | Control variable | The aggregate of a nation's imports and exports of commodities and services reflects the degree of its economic openness and integration with the global economy. | Articulated as a % of GDP and represented in monetary units (e.g., USD). |
| Population Growth | Control variable | The rate at which a population grows impacts resource distribution and economic dynamics. | They are expressed as the population growth during a given period (annual growth rate, for example). |
| Gross Capital Formation. | Control variable | An economy's net increase in tangible assets (investments) shows how much money is spent on capital goods. | They are expressed in monetary units (such as USD) or as a proportion of GDP. |

## 4. PRESENTATION AND ANALYSIS OF RESULT

**Table.2 Descriptive Statistics**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| GDP | 315 | 1.254883 | 4.646389 | -22.3833 | 19.939 |
| Inflation | 315 | 9.198666 | 35.32993 | -3.23339 | 557.202 |
| population | 315 | 2.462838 | .8437618 | -.301401 | 5.078444 |
| Trade | 315 | 69.38343 | 23.30677 | 22.2403 | 125.783 |
| GCF | 315 | 6.978121 | 28.47422 | -65.8272 | 255.731 |

Table. 2 presents the summary statistics; in the table, we can see that all the variables exhibit positive mean, and the study's observation is 315.

### 4.1 Correlation Matrix for Overall Case

The table below elucidates the matrix of correlation coefficients for the complete sample. The correlation matrix reveals a weak positive link among GDP, trade, and gcf. The inflation rate and Population exhibit a low negative association with GDP per capita and are equally significant. Nevertheless, the weak positive and negative correlations between the dependent variable (GDP) and the independent variables are discouraging. Correlation among the explanatory variables is predominantly weak to below average, indicating a lack of multicollinearity. pwcorr per trade inflation population gcf

**Table.3 Correlation Table**

| | Gdper | Trade | inflation | population | gcf |
|---|---|---|---|---|---|
| gdper. | 1.0000 | | | | |
| trade | 0.1315 | 1.0000 | | | |
| inflation | -0.1540 | -0.0650 | 1.0000 | | |
| population | -0.1159 | -0.4506 | -0.0249 | 1.0000 | |
| Gcf | 0.1974 | 0.0457 | -0.0533 | 0.0402 | 1.0000 |

### 4.2 The Pesaran (2004) CD Test for Cross-section Dependence

Multiple variable series can be concurrently evaluated and are not treated as a post-estimation command in the Pesaran (2004) CD test for cross-sectional dependence in panel time-series data. This application examines if the variable series and residuals were previously computed as separate series. The findings of this investigation are displayed in the table below.

**Table .4 The Pesaran (2004) CD test for cross-section dependence**

| Variable | CD.test | p.value |
|---|---|---|
| Gdper | 14.50 | 0.000 |
| Trade | 9.03 | 0.000 |
| Inflation | 20.55 | 0.000 |
| Population | 13.88 | 0.000 |
| Gcf | 4.20 | 0.000 |

**Note: Under the null hypothesis of cross-sectional independence, CD ~ N(0,1), p-values less than 0.1 indicate data are correlated across panel groups.*

### 4.3 OLS, Fixed Effects, Random Effects, and GLS analysis

The study initially employed Ordinary Least Squares (OLS) before employing Fixed effects, Random Effects, and Generalised Least Squares (GLS).

Inflation negatively and significantly influences economic growth across all models.

The findings indicate that a 1 percent rise in inflation diminishes the GDP level. In the OLS model, a 10 percent increase in inflation results in a -0.019% decrease in economic growth. This finding aligns with findings from Burundi Ezako's (2023). Moreover, population growth is both significant and negative; a 1 percent rise in population growth results in a -0.524% decline in economic growth. This outcome contrasts that of Chiro, E. (2024), which indicated that population growth exerted positive and significant effects on economic growth in both the short and long term, utilizing the bound test cointegration method from the ARDL estimation model.

Conversely, gross capital formation (GCF) positively and significantly affects economic growth; a 1 percent rise in GCF results in a 0.031% gain in economic growth. Dhanushi et al. (2024) confirm that GCF has a strong favorable impact on socio-economic growth. In estimations with fixed and random effects, inflation persistently exerts a negative and significant influence on economic growth. Despite the lack of enormous population growth, it remains negative; trade exhibits a positive and significant impact in both models. In the fixed effects model, a 1 percent increase in trade results in a 0.100% rise in economic growth, whereas in the random effects model, a 10 percent increase in trade leads to a 0.014% increase in economic growth. This outcome aligns with Irwin D. A. (2024) regarding "Does trade reform promote economic growth?"

Additionally, both models' GCF is positive and statistically significant at the 1 percent level. The study employed the Generalised Least Squares model to examine the effect of inflation on economic growth, yielding results in GLS that were very similar to those in OLS. In all models, inflation is considerable at 1 percent, reducing economic growth by 0.019%; population growth is significant and negative, whereas GCF is positive and significant.

The findings indicate that inflation negatively impacts economic growth in Sub-Saharan Africa. All models employed to assess the conclusions persistently demonstrate a significant negative impact on econ-

omic growth.

**Table .5 OLS, Fixed Effects, Random Effects, and GLS analysis**

| | OLS | FE | RE | GLS |
|---|---|---|---|---|
| VARIABLES | GDP | GDP | GDP | GDP |
| inflation | -0.019 *** | -0.023*** | -0.019*** | -0.019*** |
| | (0.007) | (0.008) | (0.007) | (0.007) |
| population | -0.524 * | 0.612 | -0.524 | -0.524* |
| | (0.337) | (0.826) | (0.337) | (0.335) |
| trade | 0.014 | 0.100*** | 0.014* | 0.014 |
| | (0.012) | (0.022) | (0.012) | (0.012) |
| Gcf | 0.031 *** | 0.023*** | 0.031*** | 0.031*** |
| | (0.009) | (0.009) | (0.009) | (0.009) |
| Constant | 1.523 | -7.114*** | 1.523 | 1.523 |
| | (1.459) | (2.423) | (1.459) | (1.448) |
| Observations | 315 | 315 | 315 | 315 |
| R-squared | 0.0797 | 0.0403 | | |
| Number of ids | | 21 | 21 | 21 |

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Author computation using Stata 15

## 5. CONCLUSION AND POLICY RECOMMENDATIONS

### 5.1 Conclusion

This research paper examines the impact of inflation on economic growth in 21 Sub-Saharan African nations from 2008 to 2022. Inflation negatively impacts economic growth, aligning with the prevailing belief that high inflation can result in economic stagnation and lowered investor confidence. Population growth negatively impacts economic growth, likely due to the strain it imposes on resources, infrastructure, and social services. Trade positively influences economic growth, indicating that heightened trade activity can foster economic growth and development within the country. Gross capital formation (GCF), an indicator of economic activity, exerts a positive impact on economic growth. The study's results align with established economic principles and provide important guidance for policymakers in Sub-Saharan Africa, emphasizing the necessity of controlling inflation, investing in human capital, and fostering trade and economic activity to attain sustainable economic growth. The study's findings align with prior research on the topic, including Ezako's (2023) in Burundi, Dammak et al. (2017) in Tunisia, Quartey (2010) in Ghana, and Kasidi and Mwakanemela (2013),and other researchers all of whom identified a negative correlation between inflation and economic growth.

### 5.2 Recommendations

This study determined that a rise in the overall price level and inflation had negatively influenced economic growth in Sub-Saharan African nations. The results include significant policy implications for domestic policymakers and development partners, indicating that inflation control is essential for fostering economic growth. Consequently, authorities should prioritize sustaining inflation at a low rate, ideally within a single digit. The stability of the inflation rate is a crucial determinant of economic growth. This suggests that any variation in the nation's overall pricing level substantially affects economic growth. The

study concluded that all factors contributing to the escalation of general price levels, including the energy crisis, infrastructure deficiencies, exchange rate volatility, increased money supply, and inadequate agricultural production, must be addressed through suitable policies to promote economic growth.

Most sub-Saharan African nations are experiencing double-digit inflation because of a lack of infrastructure, less exportation, more importation, an energy crisis, and a lack of mechanized farming, which leads to poor agricultural produce. Most countries in sub-Saharan Africa also experience a lack of electricity power, and electricity is a component that has a lot of ramifications; electricity power can encourage investors and also boost businesses; therefore, governments and policymakers should always try to create favorable policies that will reduce the level of inflation in sub-Saharan Africa. Within sub-Saharan Africa, the majority of importation commodities are food, which means agriculture should be focused on as a pivotal area to reduce inflation; if countries can produce for themselves, especially food, there will be less importation, and most of the commodity prices can be determined within the country. Other variables can also impact economic growth. Based on the regression analysis, trade exerts a favorable and substantial impact on economic growth; therefore, policymakers and governments should draft policies that will enhance trade since it is a crucial component of economic growth. Population growth negatively influences all models, indicating a reduction in economic growth due to the low productivity of most sub-Saharan African populations and the high dependency rates; therefore, policymakers should create policies to control population growth.

In summary, policymakers should always create policies to control inflation to at least a single digit, increase trade, control population growth, and improve gross capital formation.

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