

Africa's Growth Performance Amidst Inflationary Pressure and Current Account Deficit: Will Diversification Spur a Better Trajectory?

Augustine Adebayo Kutu¹, Abieyuwa Ohonba²

Abstract

This study analyzes the impact of inflationary pressure and current account deficit on real GDP growth rate of 48 randomly selected Africa countries from 2001 to 2023. A panel-based dataset was collected from the World Bank Development Indicator, Africa Development Bank data repository, Central Bank of each country as well as their Bureau of Statistics. Data was analyzed using Driscoll Kraay two-way fixed effect estimation, while robustness check was done using quantile regression estimation. Result shows that the impact of inflation on real GDP growth remains negative and insignificant across most quantiles, while current account deficits demonstrate varying effects depending on a country's position within the growth distribution. Notably, export diversification and concentration indices significantly moderate the adverse effects of current account deficits, particularly at both lower and upper quantiles of GDP growth. Hence there is need for promoting export diversification as a policy priority among African countries, especially those at the extremes of the growth spectrum. Also targeted interventions, such as enhancing industrial capacity and improving export competitiveness are recommended to bolster economic resilience. Finally, there is need for continuous monitoring of inflation trends and current account balances especially for African countries reliant on imports.

Keywords: Growth Performance, Inflationary pressure, Current Account deficit, Diversification, Trajectory

Jel Code: O4, C5, F62.

INTRODUCTION

Amid ongoing global and regional disruptions, the conversation around the economic growth performance of African countries has intensified, particularly given the slowdown observed across much of the continent. The African Economic Outlook (AEO, 2023) reports that approximately 57.4% of African nations (31 of 54 African countries) experienced weaker growth between 2021 and 2022. This slowdown has sparked concern over the continent's economic resilience. Equally troubling is the uneven growth trajectory across different countries in Africa, highlighting varying degrees of vulnerability to economic uncertainties. This disparity underscores the complex, multifaceted challenges facing Africa's economic landscape, making it imperative for policymakers to focus on tailored solutions that address specific country-level risks and growth impediments. More worrisome is the fact that inflationary pressure in Africa in recent time has been on the upside especially following the effect of Covid-19 pandemic, geopolitical tensions and conflicts, climate shocks and limited fiscal space for African governments to adequately respond to shocks and sustain post-pandemic economic recovery gains (AFDB, 2023). The issue of inflationary pressure had become more pronounced since 2022, when it was reported that not less than 18 African countries has been bedeviled by double digit rate of inflation (African Economic Outlook [AEO], 2023),

In recent time, inflationary pressure had been acclaimed to sustain an undeniable negative implication for growth trajectory of Africa countries (see Lili et al., 2023; Ramadhaniyati et al., 2023; Khan et al., 2022; Ibrahim and Nura, 2021; Khan and Khan, 2018). More worrisome is the colossal impact of inflationary on the public budget stance of countries in the continent thus leaving most African countries with excessive budget burdens despite narrowed revenue generating capacity (Ayana et al., 2024; Odd-Helge and Ole, 2020). Notably, amidst the intensifying impact of inflationary pressures across Africa in recent times, the continent is simultaneously contending with a worsening current account deficit. As of 2023, the average current account deficit stood at 1.7% of GDP, with projections indicating a further decline to around 2% of GDP in 2024 (AEO, 2024). This

¹ School of Economics, College of Business & Economics, University of Johannesburg E-mail: ade_kutu@yahoo.com

² School of Economics, College of Business & Economics, University of Johannesburg E-mail: aohonba@uj.ac.za

widening deficit underscores the ongoing economic vulnerabilities in Africa, with significant implications for long-term financial stability and growth. The growing deficit reflects the continent's increasing challenges in balancing trade and financial flows, further compounding existing fiscal pressures.

To this end, diversification become a pathway through which African countries might be able to maintain and sustain the desired level of growth. As pointed out in literature, diversification is the hallmark of rescue strategy for developing nations of the world in the presence of economic dynamics, structural bottlenecks and volatile economic realities (Kaya et al., 2019; Alley, 2018). While recommendations on policy direction for addressing the inflationary pressure in African might be more poised in favour of tailored monetary policy decisions on the short term and medium term (Falck et al., 2019; Taylor, 2019), the rescue potential of diversification in the region towards sustaining desired economic growth cannot be overemphasized. Without mincing words, the onerous question to asked is whether diversification could really stabilize the growth trajectory of African as a whole looking forward. Tracking the role of diversification in sustaining long term stability and economic growth for Africa is an important empirical concern in this era, with growing claim of the need for diversification in Africa in response to the underlining slow and uneven structural transformation that forms the reality of the continent (AEO, 2024). While global attention has been attracted to the need to initiate strategic global architecture of reforms to rescue Africa from its development dilemma, the question of whether diversification can underscore a significant impact on the continent in the face of inflationary pressure and the eminent reality of the current account deficit remains an unsolved empirical puzzle.

Literature on the subject of inflationary pressure and current account deficit do not capture wide spectrum of Africa countries, especially with an objective inclusion of other measures based on the stance of dataset of both inflation rate and current account deficit within the era of strategic global attempt to foster and maintain high economic growth performance that can translate to sustainable development as reflected by the drive of the millennium development goal as well as sustainable development goals. To fill this gap, this study tracked the effect of inflationary pressure and current account deficit on economic growth of 48 African countries, using both continuous and dummy measures of inflationary pressure and current account deficit. While inflation rate and current account balance reflect largely the stance of inflationary pressure and current account deficit, this study further capture inflationary pressure using dummy of 1 for period of double-digit inflation rate across the selected African countries, and 0 otherwise. In addition, periods of negative net current account balance were dummied as 1, and 0 otherwise to further reflect the stance of inflationary pressure and current account deficit on the real gross domestic product.

Succinctly, attempt in literature to bring to book the position of diversification in restoring growth and development prospect has either not factored-in the current reality of inflationary pressure, and current account deficit or at largely narrowed to the context of a single country, or selection based on certain country attribute with no specific attention given to regional base analysis especially in the context of Africa (see Kaya et al., 2019; Jolo et al., 2022). Consequently, the importance of diversification in maintaining and sustaining the growth potential of Africa continent in the face of inflationary pressure and current account deficit up-till now lack adequate empirical validation and/or reference. We therefore decided to fill this gap by evaluating the moderating role of diversification both in terms of export diversification index and export concentration index in the growth-inflation nexus as well as growth-current account deficit nexus.

Another germane gap identified in literature on the discourse of inflationary pressure and current account deficit as it connect to growth performance in Africa is the lack of holistic overview of possibility of differences in the impact of inflation and current account deficit on economic growth across different quantiles of growth distribution in the Africa region, as such most conclusion on the subject matter has largely been restricted and based on the average stance of growth in the region despite the uneven growth distribution that is evidence in the region (AEO, 2024). To fill this gap, this study conducted a robustness check using quantile regression estimation to reflect on the impact of both inflationary pressure and current account deficit of real GDP growth across the lower quantile (10th and 25th quantiles), median quantile (50th quantile) and upper quantiles (75th and 90th quantile). Hence, we examine how inflationary pressure and current account deficit impact the growth

performance of Africa as a continent and also track the nature of the moderating effect of diversification in the growth-inflation and growth-current account deficit nexus.

Given the above introduction, the rest of the paper is structured to capture literature review in the second section, followed by overview of methods used in section 3, result and Discussion in section 4, while section 5 captures conclusion and policy recommendation of the study.

BRIEF REVIEW LITERATURE

Several empirical studies have been explored on the discourse of inflation and economic growth. Among these studies, Rizwan et al. (2023) examined the link between inflation and the macroeconomy such as output, trade balance and unemployment, using monthly data from the UK from January 2010 to June 2022. Data were analyzed with VAR model, time-varying VAR analysis, and time-varying panel model with robustness which showed that in the event of inflation shocks, the other economic indicators (including output) decrease. In another context, Malec et al. (2024) investigated the dynamic relationship between inflation, exchange rate, and economic growth in Ethiopia for the period 1991–2020, using ARDL model for short-run and long-run dynamics, the Bound test of co-integration to confirm if the target variables go together or not, and Granger causality tests are performed to detect dynamic effects. The ARDL model estimates suggested that inflation and exchange rate are negatively related to economic growth.

Shelton et al. (2021) also investigated the impact of inflation and inflation uncertainty on growth in South Africa by applying the autoregressive distributed lag (ARDL) estimation technique on quarterly data covering the period 1961Q1 to 2019Q4. Findings in the study showed that inflation negatively harms growth in both the short and long run, while inflation uncertainty is a short-run phenomenon in South Africa. Similarly, Alaa et al. (2023) focused on identifying how unemployment and inflation and their related aspects affect Palestinian economic growth, using ARDL approach. Based on data from 1991-2020 engaged in the study, result showed positive impact of inflation on economic growth.

In a comparative study, Safar et al. (2024) discussed the relationship between the inflation indicator and various dimensions of economic development (such as production, agriculture, industry, dependency, health, and education) in Egypt and Saudi Arabia from 1990 to 2022. The study showed that high inflation rate positively influences industry and production in Egypt. But in Saudi Arabia, lower inflation rate positively affected industry and production. In the same vein, Ibrahim and Guivis (2018) analyzed the effect of inflation on growth between Cameroon and Ivory Coast., using VAR model approach which showed that unidirectional causality from inflation to economic growth in Ivory Coast, while there is no causality between these variables in Cameroon.

Patrick et al. (2021) examined the effects of current account deficits on economic growth. The study used cointegration analysis, a dynamic vector error correction model and Toda-Yamamoto Granger-causality on annual time series data for Kenya from 1980 to 2016 which showed that in the long run, current account deficit has significant positive effect on economic growth in Kenya and a bidirectional causality between current account deficit and economic growth. Contrarily, Sardar et al. (2021) estimated the impact of current account gap (CAGAP) on economic growth in selected South Asian countries for the period of 1990 to 2018. Data used in the study were analyzed with panel dynamic regression analysis which showed that current account gap is contractionary in the short run due to dominance of demand channel while it has expansionary effect in the long run due to dominant supply channel.

Yuying, et al. (2019) filled the gap in forecasting economic growth and inflation in China, by using the rolling weighted least squares (WLS) with the practically feasible cross-validation (CV) to choose an optimal estimation window. The study showed that in most cases, asset prices, rather than inflation rate, are key variable for forecasting macroeconomic variables, especially output growth rate. Kasahun, et al. (2023) investigated into nexus of inflation, unemployment, and economic growth for the least-developed, transition-undertaking, economy of Ethiopia using data of 1980-2020 which showed trivial effect of either inflation or unemployment rates on the economic growth of Ethiopia on the long run.

On the issue of current account deficit and economic growth, Özer and Malovic (2020) assessed relationship between current account deficit and growth rate in Turkey, using data of the period 2002Q1 to 2017Q1. These data were analyzed with descriptive statistics, including charts, traditional Granger and Frequency Domain Causality Tests. Results of the study indicated that there is unidirectional causality between current account deficit and economic growth based on the two methods of causality. Additionally, the result demonstrated that the causality exists growth in both short- and medium-run. Using a different analysis method, Mustafa et al. (2018) investigated the relationship between current account deficits and growth in Montenegro by applying the bounds testing (ARDL) approach to co-integration for the period from the third quarter of 2011 to the last quarter of 2016. The bounds tests suggest that the variables of interest are bound together in the long run when growth is the dependent variable. The results also confirm a bidirectional long run and short run causal relationship between current account deficits and growth.

On the other hand, Beirne et al. (2021) also assessed persistent current account imbalances and its implication on regional and global growth. The study focused on three largest persistent surplus countries (Japan, Germany and China) and two largest persistent deficit countries (the United States and United Kingdom). Data covered the period 1999Q1-2018Q4 and were analyzed with panel VAR which showed that magnitudes of the responses of growth to shocks are much lower in current account deficit countries on average than in the case of current account surplus countries. Additionally, Kouadio and N'Guessan (2021) investigated the degree of sustainability of current account in Cote D'Ivoire, using a non-linear approach. The study used data which covered the period 1985Q1 to 2017Q4 and was analyzed with asymmetric co-integration test and conditional error correction regression method. Based on these estimations, the study showed the long-term relationship between exports and imports; and that exports react differently to asymmetric shocks on increased imports, with a return to equilibrium often very slow.

Dissou and Nafie (2021) examined the connection between current account deficit and fiscal imbalance in the presence of structural breaks in Egypt. The study engaged data from 1962 to 2017 which were analyzed with ARDL co-integration approach, bootstrap causality test, as well as fully modified ordinary least square. Result revealed that budget deficit had a positive significant effect on current account deficit on the short run, but insignificant negative effect on the long run. Results also demonstrated that there is no causality between the current account deficit and budget deficit. Expanding the scope, Karras (2019) studied asymmetric relationship between government budget deficit and current account balance. Data engaged in the study covered the period 1870-2013 as well as 1950-2013 for seventeen countries and data were analyzed with VAR estimation approach with and without asymmetry imposed. Results then showed that budget deficit had negative effect on current account balance when symmetric restriction was imposed. On the other hand, the result revealed that similar evidence when entire dataset was engaged under asymmetric restriction, but with dataset of 1950-2013, it indicated that budget had insignificant effect on current account balance.

Matallah (2020) assessed the relationship among oil rent, economic diversification and economic growth in oil-abundant MENA countries, spanning from 1996 to 2017. The study adopted pooled OLS, fixed effects, random effects and generalized method of moments (GMM) estimators. The findings indicated that MENA oil exporters' growth is greatly and positively influenced by oil rents. With slight difference in scope. Aker and Agaei (2019) also examined economic diversification and performance in oil rich MENA countries from 2010 to 2016 using K-means algorithm which is a versatile data mining technique. Findings from the study indicated that higher export diversity in addition to better economic performance can influence the competitiveness of business environment of the countries positively and vice versa.

Banerjee et al. (2023) evaluated oil price changes and stock market performance in UAE with focus on whether cointegration persists in economic diversification era. Vector autoregressive Model (VECM) was employed on monthly data spanning from the period of 2006 to 2019. The results of VECM estimates showed that in the long run, fluctuations in oil prices continues to have significant effect on UAE stock market, despite economic diversification efforts by the policy makers to move away from oil dependency. Jolo and Koc (2022) examined driving factors of economic diversification in resources rich countries via panel data evidence. The study evaluated the relations driving economic diversification in 14 resource-rich countries from 2001 to 2019, with

six alternative models. In this regard, feasible generalized least squares regression was adopted for the proposed model specifications. The study used a new proxy for economic diversification, namely the subtraction of total natural resources from the total GDP, rather than the non-resource exports widely used in the literature. The results show that the driving factors for economic diversification are education, labor force participation, financial development, and investments in the non-resource sectors.

Orebiyi and Effiong (2023) evaluated export diversification, financial sector development and economic growth. The study involved data of ten West African countries for the period of 2007 to 2020, which were analyzed with panel auto regressive distributed lag (ARDL) model, fully modified ordinary least squares approach of estimation and Granger causality test. Based on the analysis methods, the study revealed that export diversification exerts a negative effect on economic growth both in the short-run and in the long-run. On the other hand, Alley (2018) assessed the role of economic diversification on oil price and USD-naira exchange rate crash, using autoregressive distributed lag (ARDL) and vector autoregressive (VAR) models on data of 2008M1 to 2015M12. Findings of the study indicated that diversification, by increasing export revenue and reducing import bills, therefore has great potential to improve the value of Naira.

METHODOLOGY

Variables and Model Specifications

This study measured inflationary pressure using two different measures, first, inflationary pressure was measured by annual % growth of consumer price index as used by previous studies such as (Lili et al., 2023; Khan et al., 2022; Ibrahim and Nura, 2021), second, similar to McLeay and Tenreyro (2020) and Miao (2009), a dummy variable measure was also used to further established the validating of inflationary pressure within Africa countries. Notably, inflationary pressure was capture by assigning dummy 1 to a period of double-digit inflation and 0 for otherwise across the selected African countries. For current account deficit also, two distinct measures were used. While the first measure is a continuous measure in terms of current account balance, the second measure was current account deficit dummy (dummied as 1 for period with negative current account balance and 0 otherwise). Economic growth was measured in terms of the real GDP growth rate. Diversification as a moderating variable was measured by export diversification index and export concentration index as used by Matallah (2020). The export diversification index measures how closely a country's export structure aligns with global patterns. It ranges from 0, indicating a high level of diversification, to 1, signifying minimal diversification. On the other hand, the export concentration index reflects the extent to which a country's exports are focused on a few products or are more evenly distributed across a broader range of goods. The index ranges from 0, indicating minimal concentration, to 1, representing maximum concentration. Other variables used in the models serve as control variables.

Three strand of models were estimated in this study, the first model specific real GDP growth rate as a function of inflation rate alongside other variables considered as control variables (such as gross fixed capital formation; Government expenditure; population growth; trade openness; foreign direct investment; Gross Domestic Savings; Labor participation rate) as rooted in the literature like Hassan (2021). Model 1a and 1b included the two respective proxies use to capture inflationary pressure as discussed above. The second model specified real GDP growth rate as a measure of current account deficit alongside the control variables in which model 2a and 2b also reflect the two measures used for current account deficit. The third stand of model adapted model 1a and model 2a and incorporated an interaction term for inflation and the two measures of diversification (i.e. export diversification index and export concentration index) to form model 3 and 4 which track the moderating role of diversification in growth-inflation nexus, and model 5 and 6, which track the moderating role of diversification in growth-current account balance nexus.

Furthermore, robustness check estimation was also done estimating models 3, 4, 5, 6 with quantile regression estimation in an attempt to track whether the position is disintegrated into lower order, medium order and upper order quantiles respectively with focus on 10th quantile, 25th Quantile, 50th Quantile, 75th Quantile and 90th Quantile. It is worthy of note that the specifications in this study reference models use by previous studies including (Matallah, 2020; Özer and Malovic, 2020; and Yuying, et al., 2019 among others) as specification framework, though with modification.

Finally, data used for the estimations were sourced from the World Bank Development Indicator, Africa development bank data repository, Central Bank of each country as well as their Bureau of Statistics.

Model specifications:

Model specification: First strand

Model 1a:

$$\ln rgdpgr_{it} = \alpha_0 + \alpha_1 \ln inf_{ir} + \alpha_2 \ln gfcf_{ir} + \alpha_3 \ln gexp_{ir} + \alpha_4 \ln popgr_{ir} + \alpha_5 \ln top_{ir} + \alpha_6 \ln fdi_{ir} + \alpha_7 \ln gds_{ir} + \alpha_8 \ln rem_{ir} + \alpha_9 \ln lfp_{ir} + \varepsilon_1 \text{ --- (1a)}$$

Model 1b

$$\ln rgdpgr_{it} = \beta_0 + \beta_1 \ln fp_{ir} + \beta_2 \ln gfcf_{ir} + \beta_3 \ln gexp_{ir} + \beta_4 \ln popgr_{ir} + \beta_5 \ln top_{ir} + \beta_6 \ln fdi_{ir} + \beta_7 \ln gds_{ir} + \beta_8 \ln rem_{ir} + \beta_9 \ln lfp_{ir} + \varepsilon_1 \text{ --- (1b)}$$

Model specification: Second strand

Model 2a

$$\ln rgdpgr_{it} = \gamma_0 + \gamma_1 \ln cab_{ir} + \gamma_2 \ln gfcf_{ir} + \gamma_3 \ln gexp_{ir} + \gamma_4 \ln popgr_{ir} + \gamma_5 \ln top_{ir} + \gamma_6 \ln fdi_{ir} + \gamma_7 \ln gds_{ir} + \gamma_8 \ln rem_{ir} + \gamma_9 \ln lfp_{ir} + \varepsilon_1 \text{ --- (2a)}$$

Model 2b

$$\ln rgdpgr_{it} = \delta_0 + \delta_1 \ln cad_{ir} + \delta_2 \ln gfcf_{ir} + \delta_3 \ln gexp_{ir} + \delta_4 \ln popgr_{ir} + \delta_5 \ln top_{ir} + \delta_6 \ln fdi_{ir} + \delta_7 \ln gds_{ir} + \delta_8 \ln rem_{ir} + \delta_9 \ln lfp_{ir} + \varepsilon_1 \text{ --- (2b)}$$

Model Specification: Third strand (Moderation effect of Diversification)

Model 3

$$\ln rgdpgr_{it} = \theta_0 + \theta_1 \ln inf_{ir} + \theta_2 \ln (inf * edi)_{ir} + \theta_3 \ln gfcf_{ir} + \theta_4 \ln gexp_{ir} + \theta_5 \ln popgr_{ir} + \theta_6 \ln top_{ir} + \theta_7 \ln fdi_{ir} + \theta_8 \ln gds_{ir} + \theta_9 \ln rem_{ir} + \theta_{10} \ln lfp_{ir} + \varepsilon_1 \text{ --- (3)}$$

Model 4

$$\ln rgdpgr_{it} = \vartheta_0 + \vartheta_1 \ln inf_{ir} + \vartheta_2 \ln (inf * eci)_{ir} + \vartheta_3 \ln gfcf_{ir} + \vartheta_4 \ln gexp_{ir} + \vartheta_5 \ln popgr_{ir} + \vartheta_6 \ln top_{ir} + \vartheta_7 \ln fdi_{ir} + \vartheta_8 \ln gds_{ir} + \vartheta_9 \ln rem_{ir} + \vartheta_{10} \ln lfp_{ir} + \varepsilon_1 \text{ --- (4)}$$

Model 5

$$\ln rgdpgr_{it} = \rho_0 + \rho_1 \ln inf_{ir} + \rho_2 \ln (cab * edi)_{ir} + \rho_3 \ln gfcf_{ir} + \rho_4 \ln gexp_{ir} + \rho_5 \ln popgr_{ir} + \rho_6 \ln top_{ir} + \rho_7 \ln fdi_{ir} + \rho_8 \ln gds_{ir} + \rho_9 \ln rem_{ir} + \rho_{10} \ln lfp_{ir} + \varepsilon_1 \text{ --- (5)}$$

Model 6

$$\ln rgdpgr_{it} = \varphi_0 + \varphi_1 \ln inf_{ir} + \varphi_2 \ln (cab * eci)_{ir} + \varphi_3 \ln gfcf_{ir} + \varphi_4 \ln gexp_{ir} + \varphi_5 \ln popgr_{ir} + \varphi_6 \ln top_{ir} + \varphi_7 \ln fdi_{ir} + \varphi_8 \ln gds_{ir} + \varphi_9 \ln rem_{ir} + \varphi_{10} \ln lfp_{ir} + \varepsilon_1 \text{ --- (6)}$$

Data Scope and Estimation Techniques

In line with Rehman and Ahmad (2022) and Ridwan et al. (2024), this study made use of Driscoll Kraay standard error two-way fixed effect estimation technique being the most appropriate estimation technique after evaluation of the models on the basis of presence of cross-section and period specific effects as well as presence of heteroscedasticity, autocorrelation, and cross-sectional dependence in the models. Driscoll Kraay standard error estimation is considered consistent and efficient in correcting for observed heteroscedasticity, autocorrelation and cross-sectional dependence in any panel structure balanced or unbalanced. In addition, robustness technique of Quantile regression was employed reflecting on 10th and 25th Quantiles as lower order, 50th Quantile as medium order quantile, while 75th Quantile and 90th Quantile were considered as upper

quantiles for the study. The robustness using quantile regression is reflective of the non-normality of the outcome variable of the study, which might undermine the basis for analysis strictly on the average condition. Hence, while the study made use of Driscoll Kraay standard error fixed effect estimation as the main estimation technique, quantile regression estimation was used to track distributional effect and stance of the investigation across different quantiles.

Empirical Results

Summary statistics and Correlation analysis

The summary statistics presented in Table 1 reveal key insights about the economic conditions of the 48 African countries included in this study between 2001 and 2023. The average real GDP growth during this period was 4.254%, accompanied by an inflation rate of 7.8%. The countries also reported an average current account deficit, with the current account balance standing at -4.837% of GDP. Gross fixed capital formation averaged 22.16% of GDP, while government expenditure averaged 9.975 billion US dollars. Population growth across countries averaged 2.3% annually, reflecting significant demographic trends. Trade openness was relatively high, with an average value of 72.08%, while foreign direct investment inflows averaged 906.96 million US dollars. Additionally, the average Gross Domestic Savings across the selected countries was 8,178.07 million US dollars, and remittance inflows averaged 1,322.56 million US dollars during the study period. Labor force participation, defined as the share of the population aged 15 and above involved in the workforce, averaged 60.12%, while export diversification index and concentration index had average values of 0.769 and 0.449, respectively, indicating that Africa, as represented by these 48 countries, is still far from achieving optimal export diversification. This view aligns to Usman and Landry (2021) and Ross and Werker (2024).

These descriptive statistics serve to outline the key economic indicators used in the study, with minimum and maximum values providing insight into the variability and distribution of the data across the time period. The correlation statistics, as displayed in Table 2, suggest that most pairs of variables exhibit a modest correlation, with the coefficients generally below 0.5. The direction of these correlations varies across variable pairs. Importantly, no concerning signs of multicollinearity were observed among the explanatory variables, as the correlations remained within an acceptable range. The only notable high correlation was between measures of diversification, which stood at 0.84. However, these variables were not included together in any of the moderation effect models, ensuring that multicollinearity is not an issue in the estimated models. In conclusion, the correlation matrix supports the robustness of the variable selection for the study, confirming that multicollinearity is not a concern.

Table 1: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	SOURCE
Rgdpg	1104	4.254	7.029	-66.657	124.709	AfDB 2024
Inf	1104	7.842	17.195	-9.8	359.092	AfDB 2024
Cab	1104	-4.837	10.247	-95.004	52.678	AfDB 2024
infp*	1104	.21	.408	0	1	Computed
cad*	1104	.788	.409	0	1	Computed
Gfcf	1104	22.16	8.236	2.017	78.001	WDI
Gexp	1104	9.974	20.97	.039	137.271	WDI
Popgr	1104	2.357	.994	-5.28	5.785	WDI
Top	1104	72.086	40.869	2.208	347.997	WDI
Fdi	1104	906.962	2068.006	-7397.295	40658.789	WDI
Gds	1104	8178.069	16463.932	-849.876	109688.45	WDI
Rem	1104	1322.564	3938.244	.011	31487	WDI
Lfp	1104	60.121	16.674	-1.689	88.35	WDI
Edi	1104	.769	.085	.487	.938	WDI
Eci	1104	.449	.219	.106	.956	WDI

Note: Variables with * are computed dummy variables based on dataset collated from, AfDB 2024, where AfDB is African Development Bank Data repository, and WDI is world Development indicator database. All variables summary statistics are presented in raw unit form for clear overview, while analysis was done on the logged form

Table 2: Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) lnrgdpgr	1.000												
(2) lninf	0.003	1.000											
(3) ln cab	0.128	-0.259	1.000										
(4) lngfcf	0.163	-0.139	0.174	1.000									
(5) lngexp	0.099	0.076	-0.019	0.241	1.000								
(6) lnpopgr	0.112	-0.142	-0.001	0.337	0.029	1.000							
(7) ln top	0.074	-0.170	0.387	0.299	-0.479	-0.105	1.000						
(8) lnfdi	0.061	0.046	0.056	0.261	0.597	0.051	-0.049	1.000					
(9) lngds	0.009	0.029	0.094	0.284	0.725	0.059	-0.178	0.930	1.000				
(10) lnrem	0.096	0.035	-0.222	-0.032	0.592	-0.113	-0.445	0.235	0.267	1.000			
(11) lnifp	0.202	-0.021	-0.136	0.315	0.218	0.622	-0.227	0.168	0.177	-0.056	1.000		
(12) lnedi	-0.024	0.139	0.111	0.155	-0.158	0.299	-0.128	-0.070	0.033	-0.467	0.137	1.000	
(13) lneci	0.066	0.072	0.167	0.258	-0.002	0.539	-0.114	-0.107	0.023	-0.438	0.262	0.849	1.000

Driscoll Kraay Estimation (Impact inflation and current account deficit on Real GDP growth)

The Driscoll-Kraay estimation results presented in Table 3 indicate that, on average, inflation exerts a negative but statistically insignificant impact on real GDP growth in Africa, all else being equal. Specifically, the coefficient estimate for inflation rate in Model 1a is reported at -0.068, highlighting that higher inflationary pressures tend to hinder real GDP growth. Similarly, when inflation is measured using a dummy variable for double-digit inflation rates, the impact remains negative and statistically insignificant, with a coefficient estimate of -0.038, as seen in the column for Model 1b. These findings suggest that while inflationary pressures may have the potential to slow down economic growth in Africa, they do not significantly disrupt the overall growth trajectory across the continent. This discovery resonates closely with the position of Resti et al. (2023) that inflation rate does not pose significant threat to economic growth especially when its largely maintained within the single digit bracket.

Furthermore, the table also includes an analysis of the impact of current account deficits on GDP growth, as detailed in the column for Models 2a and 2b. The results show that current account deficits exert a negative but statistically insignificant effect on real GDP growth. When measured directly as the current account balance, the coefficient is estimated at -0.010, while the dummy variable approach yields a coefficient of -0.06.

Table 3: Driscoll Kraay Standard Error Fixed-effect Estimations (Impact Analysis)

Model 1a		Model 1b		Model 2a		Model 2b	
Var	Coef.	Var	Coef.	Var	Coef.	Var	Coef.
Contant	-0.864	Contant	-0.987	Contant	-4.932	Contant	-0.953
Lninf	-0.068	lnfp	-0.038	lncab	-0.010	cad	-0.061
Lngfcf	0.211	lngfcf	0.190	lngfcf	-0.126	lngfcf	0.208
Lngexp	0.378***	lngexp	0.415***	lngexp	-0.522	lngexp	0.427***
lnpopgr	-0.139	lnpopgr	-0.164	lnpopgr	-0.032	lnpopgr	-0.172
lnpop	0.121	lnpop	0.139	lnpop	0.666*	lnpop	0.120
lnfdi	0.029	lnfdi	0.017	lnfdi	0.211	lnfdi	0.016
lngds	-0.036	lngds	-0.025	lngds	0.218	lngds	-0.029
lnrem	0.012	lnrem	0.011	lnrem	0.301***	lnrem	0.012
lnlfp	-0.063	lnlfp	-0.094	lnlfp	-0.192	lnlfp	-0.091
Observation	1104	Observation	1104	Observation	1104	Observation	1104
Country Dum	YES	Country Dum	YES	Country Dum	YES	Country Dum	YES
Year Dum	YES	Year Dum	YES	Year Dum	YES	Year Dum	YES
R-square	0.3163	R-square	0.3103	R-square	0.6016	R-square	0.3107
Prob > F	0.0000	Prob > F	0.0000	Prob > F	0.0000	Prob > F	0.0000

Note *, **, *** implies significance at 10%, 5% and 1 % level of significance respectively

These results suggest that rising current account deficits may contribute to slower economic growth in Africa, but the impact, on average, remains marginal and not statistically significant. Succinctly, both inflation and current account deficits demonstrate a potential to negatively influence economic growth in Africa. However, neither factor presents a significant threat to the continent's overall GDP growth, as their effects remain statistically insignificant over the period examined. This result conforms to Gninafon (2015) that carried out a study on the importance of the exchange rate regime in limiting current account imbalances in sub-Saharan African countries.

Driscoll Kraay Estimation (Analysis of Moderating effect of Diversification)

To examine the moderating effect of diversification, the study utilized Driscoll-Kraay fixed effect estimation, incorporating interaction terms between inflation and the diversification measures—namely the export diversification index and the export concentration index. The results, focusing on inflation and current account deficits, are displayed in Table 4 under Models 3, 4, 5, and 6. The findings in Table 4 reveal that while inflation exerts a negative influence on real GDP growth, the interaction term indicates that the export diversification index positively moderates this negative impact (see Balavac and Pugh, 2016). Specifically, export diversification

appears to cushion the adverse effects of inflation on GDP growth, as shown by the positive coefficients for the interaction terms, with a value of 0.809 in Model 3 and 0.160 in Model 4 for the export concentration index. However, the analysis shows no statistical significance for these moderating effects, meaning that while diversification seems to offer a buffer against inflation's harmful impact on growth, this buffer is not strong enough to be considered significant for African economies on average. Essentially, although diversification appears promising, its moderating effect in the inflation-growth relationship is not substantial enough to create a significant boost for economic performance across the continent.

Similarly, the study explored how diversification moderates the relationship between GDP growth and current account deficits in Models 5 and 6. The results reveal that both the export diversification index and the export concentration index positively moderate the negative effect of current account deficits on GDP growth. However, much like in the inflation-growth relationship, these moderating effects are also statistically insignificant. Thus, while embracing diversification has the potential to mitigate the negative impact of both inflation and current account deficits on economic growth, its moderating effect does not significantly alter the growth trajectory in Africa (see Olesia Obaya, 2023). In essence, although diversification shows potential as a stabilizing force in Africa's growth-inflation and growth-current account deficit dynamics, its overall impact remains marginal and statistically insignificant. The findings suggest that diversification alone may not be sufficient to substantially accelerate economic growth in the region, underscoring the need for more robust economic strategies to complement diversification efforts.

Table 4: Driscoll Kraay Standard Error Fixed-effect Estimations (Moderation Analysis)

Model 3		Model 4		Model 5		Model 6	
Var	Coef.	Var	Coef.	Var	Coef.	Var	Coef.
Contant	-1.139	Contant	-1.225	Contant	-4.772	Contant	-4.171
lninf	-0.867	lninf	-0.221	lncab	-4.245	lncab	-0.969
lninfedi	0.809	lninfeci	0.160	lncabedi	4.213	lncabeci	0.938
lngfcf	0.159	lngfcf	0.182	lngfcf	0.093	lngfcf	-0.060
lngexp	0.509***	lngexp	0.500***	lngexp	-0.549	lngexp	-0.626
lnpopgr	-0.179	lnpopgr	-0.177	lnpopgr	-0.131	lnpopgr	-0.254
lntop	0.208	lntop	0.206	lntop	0.806**	lntop	0.525
lnfdi	0.021	lnfdi	0.022	lnfdi	0.185	lnfdi	0.176
lngds	-0.046	lngds	-0.043	lngds	0.228	lngds	0.307
lnrem	0.009	lnrem	0.010	lnrem	0.280***	lnrem	0.320***
lnlfp	-0.066	lnlfp	-0.082	lnlfp	-0.251	lnlfp	-0.220
Observation	1104	Observation	1104	Observation	1104	Observation	1104
Country Dum	YES	Country Dum	YES	Country Dum	YES	Country Dum	YES
Year Dum	YES	Year Dum	YES	Year Dum	YES	Year Dum	YES
R-square	0.3208	R-square	0.3200	R-square	0.6160	R-square	0.6104
Prob > F	0.0000	Prob > F	0.0000	Prob > F	0.0000	Prob > F	0.0000

Robustness Check

Though, the findings from the analysis in Table 3, which indicate an insignificant negative impact of inflationary pressure and current account deficits on real GDP growth aligned with the results of previous studies (Khan et al., 2022; Ibrahim and Nura, 2021)), however to ensure the robustness of these results, In line with Geraci, M. (2016), Park and Seo (2018) and Quan et al. (2024), this study extended the investigation using quantile regression, focusing on different segments of real GDP growth distribution: lower quantiles (10th and 25th), mid-quantile (50th), and upper quantiles (75th and 90th). The quantile regression results, presented in Table 5, capture the moderating effect of the export diversification index and export concentration index on the growth-inflation relationship across these quantiles. Similarly, Table 6 illustrates these effects on the relationship between real GDP growth and current account deficits. As shown in Table 5, inflation consistently maintains an insignificant negative impact on real GDP growth across most quantiles for Model 3, except for the 90th quantile. In Model 4, insignificant negative effects are observed at the 10th, 50th, and 75th quantiles, while the 25th and 90th quantiles exhibit an insignificant positive impact. Essentially, inflation's impact on GDP growth remains similar across different quantiles. Importantly, the findings from Table 5 confirm that the average negative impact of inflation on GDP growth, as seen in the Driscoll-Kraay estimation, is consistent across

different points in the GDP growth distribution. Moreover, the interaction terms reveal an insignificant positive moderating effect where inflation negatively affects growth and a negative moderating effect in instances where inflation has an insignificant positive impact, such as in the 90th quantile for Model 3 and the 25th and 90th quantiles for Model 4. Overall, the quantile regression results reaffirm the main findings regarding inflation's impact and diversification's moderating role in the inflation-growth relationship.

Turning to the current account balance, the quantile regression results in Table 6 provide notable insights. The current account deficit has a significant negative impact on real GDP growth across all quantiles, except for the 50th quantile in Model 5. In Model 6, significant negative effects are observed at the 75th and 90th quantiles, while the 10th quantile records a significant positive impact. At the 25th and 50th quantiles, the negative impact is insignificant. These results indicate that the effect of current account deficits on GDP growth varies across the growth distribution, with more pronounced negative effects at the lower and upper quantiles. This suggests that while current account deficits may not significantly impact GDP growth on average, their influence differs across countries based on their position in the growth distribution. This is in line with Behringer and Van Treeck (2018). The analysis of interaction terms further reveals significant positive moderating effects of export diversification index on the growth-current account deficit relationship at the 10th, 25th, 75th, and 90th quantiles for Model 5. Similarly, export concentration index exhibits significant positive moderating effects at the upper quantiles (75th and 90th) in Model 6. These findings highlight that export diversification and concentration can significantly mitigate the negative impact of current account deficits, particularly at the lower and upper quantiles of the growth distribution, while the effect remains insignificant at the mid-quantile (50th), which reflects the average position depicted in the main Driscoll-Kraay estimation.

In a nutshell, while the effects of inflation on GDP growth and the moderating role of diversification are consistent across both the Driscoll-Kraay estimation and the quantile regression analysis, there is clear evidence that the impact of current account deficits on GDP growth varies across different points in the growth distribution. Specifically, the negative effects of current account deficits are more significant for countries in the lower (10th and 25th) and upper (75th and 90th) quantiles of GDP growth, while the mid-quantile experiences less pronounced effects. Furthermore, diversification—both in terms of export diversification and concentration—plays a significant moderating role in cushioning the negative impact of current account deficits at these lower and upper quantiles.

Table 5: Quantile Regression (Robustness check) Model 3 and 4

Moderating Effect of Export Diversification Index (Model 3)						Moderating Effect of Export Concentration Index (Model 4)					
Variables	10th Quantile	25th Quantile	50th Quantile	75th Quantile	90th Quantile	Variables	10th Quantile	25th Quantile	50th Quantile	75th Quantile	90th Quantile
Constant	-6.103*	-3.229**	-1.522*	0.827	1.409*	Constant	-4.360	-3.146**	-1.537*	1.055	1.569**
	(3.394)	(1.522)	(0.907)	(0.796)	(0.785)		(3.418)	(1.465)	(0.873)	(0.753)	(0.785)
lninf	-0.877	-0.370	-0.326	-0.420	0.311	Lninf	-0.583	0.0546	-0.0370	-0.139	0.00519
	(2.094)	(0.939)	(0.560)	(0.491)	(0.485)		(0.560)	(0.240)	(0.143)	(0.123)	(0.129)
lninfedi	0.799	0.309	0.296	0.382	-0.354	Lninfeci	0.450	-0.125	0.00274	0.106	-0.0499
	(2.106)	(0.945)	(0.563)	(0.494)	(0.487)		(0.552)	(0.237)	(0.141)	(0.122)	(0.127)
lngfcf	0.396	0.329	0.0916	0.0347	0.0115	Lngfcf	0.544	0.270	0.0919	0.0796	-0.0144
	(0.499)	(0.224)	(0.133)	(0.117)	(0.115)		(0.499)	(0.214)	(0.128)	(0.110)	(0.115)
lngexp	0.703	0.614***	0.419***	0.216**	0.267**	Lngexp	0.551	0.559***	0.428***	0.215**	0.269**
	(0.460)	(0.206)	(0.123)	(0.108)	(0.106)		(0.465)	(0.199)	(0.119)	(0.102)	(0.107)
lnpopgr	-0.557	-0.155	0.0708	0.0128	0.0241	Lnpopgr	-0.633	-0.0444	0.0586	-0.00689	0.0410
	(0.431)	(0.193)	(0.115)	(0.101)	(0.0997)		(0.437)	(0.187)	(0.112)	(0.0963)	(0.100)
lntop	0.241	0.396*	0.304**	0.235*	0.128	Lntop	0.131	0.429*	0.315**	0.206*	0.0933
	(0.520)	(0.233)	(0.139)	(0.122)	(0.120)		(0.525)	(0.225)	(0.134)	(0.116)	(0.120)
lnfdi	0.154	0.0191	0.0409	0.0201	-0.00504	Lnfdi	0.123	0.0129	0.0453	0.0157	0.00412

	(0.115)	(0.0518)	(0.0309)	(0.0271)	(0.0267)		(0.116)	(0.0499)	(0.0297)	(0.0256)	(0.0267)
lngds	0.0282	-0.0684	-0.0237	-0.00398	-0.00672	Lngds	-0.0713	-0.0696	-0.0264	-0.0266	-0.00457
	(0.151)	(0.0677)	(0.0404)	(0.0354)	(0.0349)		(0.152)	(0.0650)	(0.0387)	(0.0334)	(0.0348)
lnrem	-0.117	-0.0135	0.0534*	0.0377	0.0361	Lnrem	-0.128	0.0150	0.0442	0.0393	0.0384
	(0.117)	(0.0524)	(0.0312)	(0.0274)	(0.0270)		(0.118)	(0.0505)	(0.0301)	(0.0259)	(0.0270)
lnlfp	0.0138	-0.0838	-0.0652	-0.259**	-0.264**	Lnlfp	0.0786	-0.109	-0.0826	-0.260**	-0.262**
	(0.513)	(0.230)	(0.137)	(0.120)	(0.119)		(0.517)	(0.222)	(0.132)	(0.114)	(0.119)

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 6: Quantile Regression (Robustness check) Model 5 and 6

Moderating Effect of Export Diversification Index (Model 5)					Moderating Effect of Export Concentration Index (Model 6)						
Variables	10th Quantile	25th Quantile	50th Quantile	75th Quantile	90th Quantile	Variables	10th Quantile	25th Quantile	50th Quantile	75th Quantile	90th Quantile
Constant	-0.514*** (0.134)	1.092 (3.205)	-1.902 (4.535)	-2.256 (2.767)	-3.569*** (0.543)	Constant	-0.0291*** (0.000)	0.897 (4.194)	-2.025 (4.599)	-1.502 (2.785)	-1.104 (0.779)
Lncab	-4.985*** (0.0791)	-4.536** (1.896)	-2.311 (2.683)	-4.189** (1.637)	-0.904*** (0.321)	lncab	0.0316*** (0.000)	-0.262 (0.693)	-0.485 (0.760)	-0.846* (0.460)	-0.984*** (0.129)
lncabedi	4.920*** (0.0787)	4.408** (1.885)	2.293 (2.667)	4.294** (1.627)	0.985*** (0.320)	lncabeci	-0.0346*** (0.000)	0.210 (0.673)	0.463 (0.738)	0.908** (0.447)	1.065*** (0.125)
lngfcf	0.413*** (0.0191)	0.503 (0.458)	0.350 (0.649)	0.226 (0.396)	-0.460*** (0.0777)	lngfcf	-0.308*** (0.000)	-0.453 (0.583)	0.226 (0.639)	-0.247 (0.387)	-0.0231 (0.108)
lngexp	-0.504*** (0.0167)	-0.917** (0.399)	-0.697 (0.565)	-0.410 (0.345)	-0.168** (0.0677)	lngexp	-0.469*** (0.000)	-0.374 (0.524)	-0.625 (0.574)	-0.0334 (0.348)	-0.453*** (0.0972)
lnpopgr	0.764*** (0.0173)	0.164 (0.414)	0.102 (0.586)	-0.490 (0.358)	-0.0822 (0.0703)	lnpopgr	1.029*** (0.000)	0.925 (0.558)	0.0980 (0.612)	-0.690* (0.370)	-0.489*** (0.104)
lntop	0.590*** (0.0163)	0.556 (0.390)	0.375 (0.552)	0.628* (0.337)	-0.0596 (0.0662)	lntop	0.505*** (0.000)	0.483 (0.510)	0.229 (0.559)	0.345 (0.339)	-0.481*** (0.0947)
lnfdi	0.288*** (0.00330)	0.252*** (0.0790)	0.117 (0.112)	0.0396 (0.0682)	0.0730*** (0.0134)	lnfdi	0.324*** (0.000)	0.313*** (0.105)	0.0743 (0.115)	-0.0133 (0.0694)	0.0311 (0.0194)
lngds	-0.203*** (0.0112)	-0.159 (0.267)	0.121 (0.378)	0.0350 (0.231)	0.499*** (0.0453)	lngds	-0.294*** (0.000)	-0.312 (0.353)	0.226 (0.387)	0.0609 (0.234)	0.437*** (0.0655)
lnrem	0.375*** (0.00378)	0.257*** (0.0907)	0.252* (0.128)	0.265*** (0.0783)	0.0613*** (0.0154)	lnrem	0.402*** (0.000)	0.359*** (0.118)	0.259** (0.129)	0.309*** (0.0783)	0.119*** (0.0219)
lnlfp	-0.915*** (0.0173)	-0.789* (0.414)	-0.302 (0.585)	-0.0463 (0.357)	0.365*** (0.0701)	lnlfp	-0.582*** (0.000)	-0.519 (0.536)	-0.237 (0.588)	0.128 (0.356)	0.339*** (0.0995)

CONCLUSION AND POLICY RECOMMENDATION

This study analyzed the impact of inflationary pressure and current account deficit on real GDP growth rate of 48 randomly selected Africa countries from 2001 to 2023. To ensure robustness of the analysis, the study employed quantile regression to examine whether this relationship holds across different points in the distribution of real GDP growth. The results show that inflation's effect on real GDP growth remains negative and insignificant across most quantiles, with only slight variations, confirming that the average impact seen in the Driscoll-Kraay estimation is consistent across the distribution. Additionally, the study highlights the moderating role of export diversification and concentration indices on both the growth-inflation and growth-current account deficit relationships. While the interaction of inflation with these indices generally produced insignificant moderating effects, the interaction of current account deficits with export diversification and concentration indices revealed significant positive moderating effects, particularly at the lower (10th and 25th quantiles) and upper quantiles (75th and 90th quantiles). These findings are consistent with previous studies like Anidiobu et al. (2018), Adaramola (2020) and Resti et al. (2023) that revealed the negative and insignificant impact of inflation on GDP growth.

Furthermore, the study revealed that export diversification and concentration indices effectively moderate the negative impact of current account deficits on real GDP growth, particularly at the extremes of the growth distribution. These findings suggest that policies aimed at promoting export diversification can cushion the

adverse effects of current account deficits on growth (see Chang and Lebdioui, 2020; Botta et al., 2023), especially in countries with lower and higher rates of GDP growth, while those in the mid-quantile experience less significant effects. Finally, this study provides strong evidence that both inflation and current account deficits affect GDP growth differently across the growth distribution, and export diversification plays a crucial role in mitigating the negative impacts of current account deficits, particularly at the lower and upper quantiles of GDP growth.

Premise on the discoveries and conclusion from this study, we recommend that African countries should promote and prioritize policies that encourage export diversification. This could involve enhancing industrial capacity by promoting innovation in key industries. Countries at the lower and upper ends of the growth spectrum in Africa should also focus on targeted interventions, such as fiscal policies or trade agreements that support growth in specific sectors. Countries in the lower quantiles of the GDP growth in Africa should also adopt specific policies to improve their export competitiveness, enhance foreign exchange reserves, and implement financial mechanisms that reduce reliance on imports. Finally, though inflation's direct impact on growth appears insignificant across most quantiles, it is important for Africa countries to continuously monitor inflationary trends and external balances (current account deficits), particularly in economies that are heavily dependent on imports.

REFERENCES

- Adaramola, A. O., & Dada, O. (2020). Impact of inflation on economic growth: evidence from Nigeria. *Investment Management & Financial Innovations*, 17(2), 1.
- African Development Bank, (AFDB, 2023). African Development Bank Revises Economic Forecast for Africa downwards amid continued global shocks. <https://www.afdb.org/en/news-and-events/press-releases/african-development-bank-revises-economic-forecast-africa-downwards-amid-continued-global-shocks-66351>.
- African Economic Outlook (AEO, 2023). Mobilizing private sector for climate and green growth in Africa. https://www.afdb.org.kr/wp-content/uploads/2023/07/african_economic_outlook_aeo_2023_-_highlights.pdf.
- African Economic Outlook (AEO, 2024). Driving Africa's Transformation: The Reform of the Global Financial Architecture. <https://www.afdb.org/en/knowledge/publications/african-economic-outlook>
- Aker, S. L., & Aghaei, I. (2019). Comparison of Business Environments in Oil-Rich MENA Countries: A Clustering Analysis of Economic Diversification and Performance. *Emerging Markets Finance and Trade*, 55(12), 2871–2885. <https://doi.org/10.1080/1540496X.2018.1537185>
- Alaa, R., Mostafa, O., Bahaa, R., Bahaa, A., Abdullah, R., (2023). Examining how unemployment, inflation and their related aspects affected economic growth in Palestine: The period from 1991 to 2020. *Heliyon* 9, 1 – 10.
- Alley, I (2018). Oil price and USD-Naira exchange rate crash: Can economic diversification save the Naira? *Energy Policy* 118(1) 245-256.
- Anidiobu, G. A., Okolie, P. I., & Oleka, D. C. (2018). Analysis of inflation and its effect on economic growth in Nigeria. *Journal of Economics and Finance*, 9(1), 28-36.
- Ayana, I.D; Demissie, W.M; Sore,A.G (2024). On the government revenue on economic growth of Sub-Saharan Africa: Does institutional quality matter?, *Heliyon*, 10(2), 1-16
- Balavac, M., & Pugh, G. (2016). The link between trade openness, export diversification, institutions and output volatility in transition countries. *Economic Systems*, 40(2), 273-287.
- Banerjee, R., Majumdar, S., & Mohammed, Z. (2023). Oil price changes and stock market performance in UAE: Evidence of cointegration persists in economic diversification era. *International Journal of Energy Economics and Policy*, 13(1), 552-561.
- Behringer, J., & Van Treeck, T. (2018). Income distribution and the current account. *Journal of International Economics*, 114, 238-254.
- Beirne, J., Renzhi, N., & Volz, U. (2021). Persistent current account imbalances: Are they good or bad for regional and global growth? *Journal of International Money and Finance*, 115, 102389. <https://doi.org/10.1016/j.jimonfin.2021.102389>
- Botta, A., Porcile, G., Spinola, D., & Yajima, G. T. (2023). Financial integration, productive development and fiscal policy space in developing countries. *Structural Change and Economic Dynamics*, 66, 175-188.
- Chang, H. J., & Lebdioui, A. (2020). From fiscal stabilization to economic diversification: A developmental approach to managing resource revenues (No. 2020/108). WIDER Working Paper.
- Dissou, Y., & Nafie, Y. (2021). On the link between current account and fiscal imbalances in the presence of structural breaks: Empirical evidence from Egypt. *The Quarterly Review of Economics and Finance*, 79, 15–27. <https://doi.org/10.1016/j.qref.2020.12.004>
- Falck E. Hoffmann, M. Hürtgen, P. (2019). Disagreement about inflation expectations and monetary policy transmission. *Journal of Monetary Economics*, 1(1), 1-17
- Geraci, M. (2016). Qtools: A Collection of Models and Tools for Quantile Inference. *R J.*, 8(2), 117.

- Gnimassoun, B. (2015). The importance of the exchange rate regime in limiting current account imbalances in sub-Saharan African countries. *Journal of International Money and Finance*, 53, 36-74.
- Hassan, S. G. (2021). Foreign Direct Investment and Economic Growth: Does Gross Fiscal Formation and Trade Openness Matter?. *The Asian Bulletin of Contemporary Issues in Economics and Finance*, 1(1), 1-13.
- Ibrahim N & Guivis Z. N., (2018) Inflation and economic growth: a comparative empirical analysis between Cameroon and the Ivory Coast *International Journal of Economics and Finance*; 10(12) 1 – 9
- Ibrahim, M and Nura, H (2021) Relationship between Inflation and Economic Growth in Nigeria: An ARDL Approach. *Jalingo Journal of Social and Management Sciences*; 3(3) 1 – 13.
- Jolo, A. M., Ari, I., & Koç, M. (2022). Driving Factors of Economic Diversification in Resource-Rich Countries via Panel Data Evidence. *Sustainability*, 14(5), 2797. <https://doi.org/10.3390/su14052797>
- Karras, G. (2019). Are “twin deficits” asymmetric? Evidence on government budget and current account balances, 1870–2013. *International Economics*, 158, 12–24. <https://doi.org/10.1016/j.inteco.2019.02.001>
- Kasahun N., Minyahil A. H., & Achalu B. (2023). On the nexus of inflation, unemployment, and economic growth in Ethiopia *Heliyon* 9, 1 – 15
- Kaya, A., Tok,E., Koc, M., Mezher,T., and Tsai,I (2019). Economic Diversification Potential in the Rentier States towards a Sustainable Development: A Theoretical Model. *Sustainability* 11(911), 1-28
- Khan, A. K., Abdullah A. & Syed, M. F., (2022). The relationship between inflation and GDP with reference to oil based economy. *International Journal of Multidisciplinary Research and Growth Evaluation*; 03(01) 1 – 7
- Khan, M. A., & Khan, S. (2018). Inflation and the economic growth: evidence from Five Asian Countries. *Pakistan Journal of Applied Economics*, 28(2), 235-252.
- Kouadio, H. K., & N'Guessan, R. K. (2021). Degree of sustainability of current account: Evidence from Côte d'Ivoire using a non-linear approach. *Heliyon*, 7(3), e06589. <https://doi.org/10.1016/j.heliyon.2021.e06589>
- Lili S., Nurtati, Syofria M., Yully E., & Yadewani D., (2023) the Effect of Inflation and Government Spending on Economic Growth in The West Sumatra Province. *husnayain business review*; 3(2) 75-81
- Malec, K., Mansoor, M., Stanislav R., Abebe A., Pavlna R., (2024) Inflation, exchange rate, and economic growth in Ethiopia: A time series analysis. *International Review of Economics and Finance* 96 (103561) 1 – 14
- Matallah, S (2020). Economic diversification in MENA oil exporters: Understanding the role of governance. *Resources Policy*, 66(1), 1-11
- McLeay, M., & Tenreyro, S. (2020). Optimal inflation and the identification of the Phillips curve. *NBER Macroeconomics Annual*, 34(1), 199-255.
- Miao, Y. (2009). In search of successful inflation targeting: evidence from an inflation targeting index. *IMF Working Paper No. 09/148*.
- Mustafa Ö., Jovana Ž.,& Sonja T. (2018).The Relationship between Current Account Deficits and Growth in Montenegro: ARDL Bounds Testing Approach. *Journal of Central Banking Theory and Practice*, 3, 5-24
- Odd-Helge, F and Ole, T (2020) Implications of the Covid-19 pandemic for revenue generation in poor African countries: DIIS Working Paper, No.13 Danish Institute for International Studies (DIIS), Copenhagen
- Olesia Obaya, L. (2023). Relationship Between Current Account Deficit And Economic Growth In Kenya (Doctoral dissertation, KCA University). Available via <https://repository.kcau.ac.ke/handle/123456789/1547>.
- Orebiyi, P.A. & Effiong, U.E. (2023). Evaluated export diversification, financial sector development and economic growth: empirical evidence from West African sub-region. *Studies in Economics and Business Relations*, 1-24.
- Özer, M., & Malovic, M. (2020). Ball and chain effect: Is Turkey's growth rate constrained by current account deficit? *Physica A: Statistical Mechanics and Its Applications*, 558, 124997. <https://doi.org/10.1016/j.physa.2020.124997>
- Park, S. I., & Seo, J. H. (2018). Does strategic orientation fit all? The effects of strategic orientation on high versus low-performing SMEs. *Asian Journal of Technology Innovation*, 26(3), 290-305.
- Patrick M. M., Wafula M. & Osoro K. (2021). The effects of current account deficitson economic growth: evidence from Kenya. *Journal of Economics and Public Finance*; 7(4), 1 – 19
- Quan, Z., Xu, X., Jiang, J., Wang, W., & Gao, S. (2024). Uncovering the Drivers of Ecological Footprints: A STIRPAT Analysis of Urbanization, Economic Growth, and Sustainable Energy in OECD Countries. *Journal of Cleaner Production*, 143686.
- Ramadhaniyati, R., Gunawan, A., Susanti, S. & Triansyah, F. A. (2023). The threshold effect of inflation on regional economic growth in Indonesia. *Jurnal Manajemen dan Bisnis*, 7(3), 472-479
- Ramadhaniyati, R., Gunawan, A., Susanti, S., & Triansyah, F. A. (2023). The Threshold Effect of Inflation on Regional Economic Growth in Indonesia. *Almana: Jurnal Manajemen dan Bisnis*, 7(3), 472-479.
- Rehman, F. U., & Ahmad, E. (2022). The effect of climate patterns on rice productivity in Pakistan: an application of Driscoll and Kraay estimator. *Environmental Science and Pollution Research*, 29(35), 53076-53087.
- Ridwan, M., Urbee, A. J., Voumik, L. C., Das, M. K., Rashid, M., & Esquivias, M. A. (2024). Investigating the environmental Kuznets curve hypothesis with urbanization, industrialization, and service sector for six South Asian Countries: Fresh evidence from Driscoll Kraay standard error. *Research in Globalization*, 8, 100223.
- Rizwan A., Xihui H. C., Chamaiporn K., Nguyen D.T.K. (2023) Inflation, oil prices, and economic activity in recent crisis: Evidence from the UK *Energy Economics* 126, 1 – 14
- Ross, M. L., & Werker, E. (2024). Diversification in resource-rich Africa, 1999–2019. *Resources Policy*, 88, 104437.

- Safar M. A., Olayan A., Majdah M. B., Sanaa M. A., Abdallah S. M. A. (2024) Comparison study in inflation and economic development between Egypt and Saudi Arabia: Using data analysis. *Alexandria engineering journal*. 108, 976 – 983
- Sardar, S.A., Atif A.J., Asadullah, K. and Faisal, R. (2021). Impact of current account gap on economic growth in South Asian Countries. *International Journal of Management*, 12(4), 297-303
- Shelton M., Tafadzwa M., & Sin-Yu Ho (2021) Inflation, inflation uncertainty and the economic growth nexus: An impact study of South Africa. *MethodsX* 8, 101-501
- Taylor, J.B (2019). Inflation targeting in high inflation emerging economies: lessons about rules and instruments. *Journal of Applied Economics*, 22(1) 102-115
- Usman, Z., & Landry, D. (2021). Economic diversification in Africa: How and why it matters. Available at SSRN 3842228.
- Yuying S., Yongmiao H., Shouyang W. (2019) Out-of-sample forecasts of China's economic growth and inflation using rolling weighted least squares. *Journal of Management Science and Engineering* 4, 1-11.