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EFFECT OF DOMESTIC CREDIT TO PRIVATE SECTOR AND INFORMAL ECONOMY ON ECONOMIC GROWTH IN WEST AFRICA

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Abstract

This study investigates the effect of Domestic Credit to Private Sector and Informal Economy on Economic growth in West Africa. This study seeks to evaluate the individual effect of the variables and their interaction. To carry out this study, data from 15 African countries for the period 1990 to 2023 were sourced from world bank database. The theoretical framework for the study was the neoclassical growth theory. A Descriptive analysis, correlation test and cointegration test were carried out and the panel ARDL method was adopted to help evaluate the long run effect of the variables of interest. The findings show that Domestic Credit to Private Sector was negative and the statistically insignificant in model 1, while Informal Economy was also negative but statistically significant in model 1. Domestic Credit to Private Sector and Informal Economy were negative and statistically significant in model 2. Their interaction was positive and statistically significant in model 2 which shows that the interaction of Domestic Credit to Private Sector and Informal Economy mitigates the negative effect of Informal Economy on Economic Growth. The control variables Foreign direct invest and Institutional Quality were positive and statistically significant in the long run which shows they are drivers of Economic Growth in the long run. The following recommendations were made from the findings above which includes strengthening capital accumulation by increasing investment in infrastructure and technology since Capital Stock has a positive long run effect on growth, formalizing the informal economy through tax incentives, simplifying business registration and also leverage Foreign direct investment and institution for sustainable growth.

Keywords: Domestic Credit, Informal Economy and Economic Growth

Introduction

Economic growth is linked to the increase in the quantity of goods and services in a country at a specific time, this also implies an increase in the real per capital income of a country. Generally economic growth means improving people's quality of living and hence lowering income distribution inequalities (Jinghan, 2004). Economic growth is primarily dependent on an effective banking sector. It has a significant impact on turning deposits into financial assets. The banking sector efficiently allocates resources by distributing accumulated deposits to relevant economic sectors. The lending system is "one of the most critical mechanisms we have for allocating resources" (Begum *et al.*, 2019). . Economic growth has provided insight into why states grow at varying rates over time, influencing the government's choice of tax rates and expenditure levels, which in turn influence growth rates (Abata *et al.*, 2012). Domestic credit is the term used to describe the financial resources that the private sector makes available to the financial sector. Furthermore, domestic credit shows a nation's level of financial growth (Bui, 2020). To put it another way, an economy that has swiftly expanded its domestic credit grows more quickly than others (Bayoumi and Melander, 2008). Therefore, many academics worldwide have concluded that domestic credit and economic growth are positively correlated.(Bui, 2020). However in contract, Levine (2005) argued that domestic credit may not always correlate with economic growth. It can even have a negative effect on economic growth. The credit industry supports growth, innovation, and financial stability, all of which are critical for the health of the economy (Levine, 2005). Credit rating agencies, credit unions, banks, and non-bank financial institutions are all part of the credit sector. The credit sector provides the necessary funding to enable investment and consumption.

More empirical research is needed to clarify the relationship between domestic credit and economic growth, as there are varying perspectives. In development literature, the word "informality" used simultaneously as informal economy refers to a broad category of businesses, laborers, and activities that operate outside of the rules of the law, regulations, and contemporary economy Informality can arise when agents are "excluded" from formality because it becomes restrictive and separates the economy, or it can develop from agents "leaving" the formal sector due to cost-benefit considerations (Loayza, 2016) Furthermore informal sector, which is characterized by unregulated, cash-based activities, low financial inclusion, and limited access to formal banking, has the potential to impair monetary policy transmission mechanisms. West Africa as a case study has a distinct economic landscape in which extensive informal sectors coexist with official monetary policy regimes. The

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neoclassical growth model, first presented by Solow in 1956 and Swan in 1958, emerged as a result of the classical growth theory's inability to adequately describe the role of technology. The hypothesis states that growth in labor, capital, and technological advancements determine growth in production. Any rise in the savings rate has no effect on the rate of production growth; rather, it just raises the capital and output per capita levels over time to their steady-state levels. The Solow-Swan model, which is the main representation of neoclassical growth theory, provides a framework for comprehending the long-term factors that influence economic growth. It prioritizes labor, capital accumulation, and productivity gains, with technology advancement serving as an external force. When it comes to the informal economy and monetary policy, this theory offers crucial insights into the workings of economic growth, but it also has some drawbacks. Technology is exogenous and not influenced by long run growth, inflation control can also stabilize savings rates. The informal sector has limiting capital accumulation from the formal credit market.

Onwuasoeze *et al*. (2023) investigated the impact of monetary policy instruments and the size of Nigeria's informal sector on economic development between 1991 and 2020. According to the results of the ADF unit root test, the OLS-based Auto Regressive distributed Lag is the best technique for investigating long- and short-run relationships among variables, while the Granger Causality test is best for examining the causal relationship between the informal economy and CBN monetary policies. The empirical results revealed that interest rates had a negative (-0.60) and considerable short-run influence on Nigerian economic growth. In the long run, the money supply has a negative relationship with GDP, with a coefficient of -10.26. In the long run, private sector credit and the extent of the informal sector contributed significantly to Nigeria's economic growth. Amoo *et al.* (2017) examined empirically, using completely modified least squares, the local characteristics and policy environment that affect the Nigerian economy's ability to absorb credit from 1993: Q1 to 2013: Q4. Findings indicate that credit promotes growth even in the presence of low levels of infrastructure, trade openness, monetary policy, and investment climate. Olannye *et al.* (2023) examined how domestic lending to the public and private sectors contributed to Nigeria's economic growth between 1981 and 2020. To capture the short- and long-term correlations among the variables, the study uses both descriptive and inferential statistical approaches, such as an Auto-regressive Distributed Lag bound model, lag selection criteria, and stationary tests. The results show that whereas public sector credit has a little effect on economic growth, private sector credit makes a substantial contribution. In order to promote domestic credit in Nigeria, the government should refrain from adopting a one-size-fits-all approach, according to the report. Instead, sector-specific domestic credit policy is needed. DRAME (2020) investigated how domestic debt of West African Economic and Monetary Union (WAEMU) member states affects the loans that local banks offer to the private sector. Data of manually gathered information from 143 banks in an unbalanced panel from 2000 to 2017. Our findings, which were obtained using a dynamic system-GMM model, demonstrate that domestic government borrowing has a crowding out effect on private credit extended by local banks.

Horvath (2018) examined the impact of informal sector and interest rate changes on business cycles in emerging countries. In emerging countries, there is a positive correlation between the volatility of consumption to output, the extent of the informal economy, and countercyclical interest rates. In a two-sector real business cycle model of a small open economy with a poorly measured informal sector, an increase in country interest rates results in a contraction in output, consumption, investment, and hours, an improvement in trade balance-to-output ratio, and an expansion of the informal sector. Patrick and Akanbi (2017) investigated how the size of the informal economy affects interest rate pass-through. An ARDL model revealed that higher levels of the informal sector are associated with higher loan rates. Furthermore, the findings revealed that the informal sector has a far greater long-term impact than it does in the short run. Finally, the results showed that the presence of an informal economy dampens the transmission of policy rate changes to retail rates in both the short and long run, as predicted by theory and empirical data. A wide scope of years is needed to cover recent data from 2020 to date. Mbate (2013) examined the effects of domestic debt on economic development and private sector lending in a panel of 21 sub-Saharan African (SSA) nations from 1985 to 2010 using a dynamic cross-country model. According to System-GMM data, there is a non-linear relationship between economic growth and domestic debt, with a maximum turning point of 11.4% of GDP. Furthermore, it is discovered that domestic debt discourages capital accumulation and private sector expansion by crowding out private sector lending with an elasticity of negative 0.3% of GDP.

Biau (2011) investigated the study to fills a key knowledge gap by doing empirical research on the impact of informal sector size on the economic dynamism of low- and middle-income countries. It proposes that informal sector size has a beneficial effect on economic dynamism at low-income levels (as measured by domestic investment), but that as economies become richer, this effect becomes increasingly negative. A fixed-effects panel analysis of 22 developing nations from 1995 to 2006 reveals a non-monotonic link between informal sector size and GDP per capita. The effect of informality on domestic investment appears to be an inverted U-shape, implying the presence of a 'informal sector Kuznets curve'. Furthermore, informality has a positive impact on low-income countries with declining returns to scale, and the ideal informal sector size is inversely related to country income level. The above necessitates the study of the relationship domestic credit and informal economy will have on economic growth individually and when there is an interaction between them. The aim of this research is to find out the effect of Domestic Credit to Private Sector and Informal Economy on Economic Growth. The specific

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objective is to find out the effect of the interaction of Domestic Credit to Private Sector and Informal Economy on Economic Growth.

Objective of the study

Objectives	Model	Interpretation
1.To determine the effect of domestic credit to private sector and Informal economy on economic growth	Model 1	It is expected that DCPS will have a positve effect on economic growth while INFE effect on growth could be negative or positive.
2. To determine the effect of the interaction of domestic credit to private sector and informal economy on economic growth	Model 2	It is expected that the interaction will have a positive effect on economic growth. DCPS is expected to mitigate any negative effect of informal economy on economic growth.

Methodology

The study is based on the theoretical foundation of the Neoclassical growth model which is widely used in empirical studies and it is adopted for this study. This study employs annual secondary data from the World Bank, World Economic Indicators and IMF database 2023. The sample ranges between 1990 and 2023 due to data availability.

The model specified follows the neoclassical framework accounting.

$GDPpc = f(K, TFP)$ 3.1

$TFP = f(DCPS, INFE)$

$GDPpc = f(K, DCPS, INFE)$ 3.2

Where

Gross Domestic Product per capita = GDP_{pc}

Capital (proxied by capital stock CS) = K

Domestic Credit to Private Sector =DCPS

Informal Economy =INFE.

Control variables

Trade Openness = TO

Human Capital = HC

Foreign Direct Investment Inflow = FDII

Institutional Quality = IQ

Model 1

$GDPpc_{it} = \beta_0 + \beta_1 K_{it} + \beta_2 DCPS_{it} + \beta_3 INFE_{it} + \beta_4 TO_{it} + \beta_5 HC_{it} + \beta_6 FDII_{it} + \beta_7 IQ_{it} e_{it}$ 3.3

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ are coefficients of the independent variables used in the study

e_{it} = Error term.

Model 2

$GDPpc_{it} = \alpha_0 + \alpha_1 K_{it} + \alpha_2 DCPS_{it} + \alpha_3 INFE_{it} + \alpha_4 TO_{it} + \alpha_5 HC_{it} + \alpha_6 FDII_{it} + \alpha_7 IQ_{it} + \alpha_8 INFE * DCPS_{it} + e_{it}$ 3.4

Where

$\alpha_0, \alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6, \alpha_7, \alpha_8$ are coefficients of the independent variables used in the study

e_{it} = Error term

Table 1: Method used for Analysis

Section	Test/Method	Purpose	Decision Rule/Criteria	Corrective Measures (if needed)
Panel Descriptive Statistics	Overall, Between, and Within Statistics	Measure variations across time and units	Compare standard deviations of "between" and "within"	No correction needed, used for descriptive analysis
Pre-Test Analysis	Pearson Correlation Test	Determine strength and direction of relationships	Values between -1 and 1; closer to 0 = weak relation	No correction needed, used for preliminary analysis
Cross-Sectional Dependence Test	Pesaran (2004) CD Test	Detect correlation across cross-sectional units	p-value < 0.05 → reject independence	If dependence exists, use second-generation unit root tests
Panel Unit Root	Levin, Lin &	Test stationarity of	p-value < 0.05 →	If non-stationary,

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Tests	Chu (LLC), Im, Pesaran & Shin (IPS), Maddala & Wu (MW)	variables	reject null (stationary series)	proceed to panel cointegration test
	Pesaran (2003) CIPS Test	Account for cross-sectional dependence	p-value < 0.05 → reject null (stationary series)	If mixed order of integration, proceed with ARDL
Panel Cointegration Test	Kao (1999), Pedroni (2004)	Test long-run relationships among variables	Absolute ADF-statistic > 2 → reject null (cointegration)	If no cointegration, use first-difference variables
Panel ARDL Estimation Methods	Mean Group (MG)	Allow heterogeneous coefficients	Requires large time-series dimension	Use if cross-country heterogeneity is significant
	Pooled Mean Group (PMG)	Assume homogeneous long-run coefficients	Hausman test (p-value > 0.05) → prefer PMG	Use if long-run coefficients are homogeneous
Estimator Selection	Hausman Test	Compare efficiency of MG and PMG	p-value < 0.05 → MG preferred, p-value > 0.05 → PMG preferred	Choose estimator with best efficiency
Diagnostic Tests	Variance Inflation Factor (VIF)	Detect multicollinearity	VIF > 10 indicates severe multicollinearity	Drop redundant variables or transform data
	Wooldridge Test	Detect autocorrelation	p-value < 0.05 → reject null (autocorrelation exists)	Use cluster robust standard errors
	Modified Wald Test	Detect heteroscedasticity	p-value < 0.05 → reject null (heteroscedasticity exists)	Use cluster robust standard errors
	Galvao et al. (2013) Normality Test	Check residual normality	p-value < 0.05 → reject null (non-normal residuals)	Apply winsorizing, bootstrapping, or transformations

Descriptive Statistics

A descriptive statistics analysis is carried out showing the variables, their mean, standard deviation, minimum and maximum values. It gives an overview and brief summary of the varibles.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP	510	1.309	7.078	-44.552	90.832
DCPS	510	14.148	11.583	.001	68.456
INFE	510	39.413	6.064	29.004	55.929
CS	510	190832.16	658071.34	2836.688	4243349
HC	510	6.042	4.079	.592	21.79
TO	510	58.071	17.222	26.099	131.485
FDII	510	3.855	10.765	-82.892	103.337
IQ	510	0	2.035	-5.165	5.647

Explanatory Notes: Obs=Observation, Min=minimum, Max=maximum, Std Dev=Standard Deviation, GDP =Gross Domestic Product per capital growth rate, DCPS=Domestics Credit to private sector, CS=Capital Stock. HC= Human Capital, TO=Trade Openness, FDII=Foreign Direct Investment Inflows, IQ= Institutional Quality.

Source: Authors computation (2025).

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Over the period 1990-2023, the mean value of Gross Domestic Product (GDP) per capital growth for fifteen African Countries is 1.308767% with the standard deviation of 7.077958 which Indicates GDP grew at a rate of 1.31% annually across observations. The minimum score is -44.555225% (severe economic contraction) and the maximum score 90.83227% (extreme growth in some countries) showing GDP deviated much from the mean. On the average Domestic Credit to private sector (DCPS) has a mean of 14.15% indicating a low private sector credit access, a standard deviation of 11.58 which is a wide disparity across countries as a result of underdeveloped banking sector. The minimum value of 0.001% this is a near absence of private credit in some economies and the maximum value of 68.46% indicating a more developed financial system in some countries. Informal economy (INFE) has a mean of 39.41% and a standard deviation of6.06 relatively stable across observations. A minimum and maximum value of range 29.00 to 55.93 showing no extreme outliner hence a possibility of a standardized index.

Correlation Analysis Result

Tables 2 presents the result of correlation analysis, which is conducted to find out the correlation between every pair of the variables employed for the study. The magnitude, significance and direction of the association between two or more variable are shown by correlation matrix. The correlation value is between -1 and 1. While the density of correlation coefficients show the amount of association, the coefficient sign (positive or negative) reflects the direction of the relationship. The correlation between the variables reveals a weak, moderate, or high link. A complete positive linear connection exists between each variable and itself, hence, the coefficient on the major diagonal is often 1.000.

Table 3: Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) GDP	1.000							
(2) DCPS	0.074	1.000						
(3) INFE	-0.061	-0.377	1.000					
(4) CS	0.024	-0.029	0.512	1.000				
(5) HC	0.073	0.389	-0.103	-0.038	1.000			
(6) TO	0.119	0.498	-0.322	0.040	0.332	1.000		
(7) FDII	0.171	0.018	-0.021	-0.057	0.045	0.143	1.000	
(8) IQ	0.101	0.610	-0.280	-0.202	0.141	0.213	-0.001	1.000

Source: Author's computation, 2025.

The analysis of correlations among Gross Domestic Product per capital growth rate (GDP), Domestic Credit to private sector (DCPS), Informal Economy (INFE), Capital Stock (CS), Human Capital (HC), Trade Openness (TO), Foreign Direct Investment Inflows (FDII), Institutional Quality (IQ), shows the correlations that exist between them. The independent variables which include Inflation INFL exhibits a weak negative correlation with GDP by -0.0978, although this relationship is statistically significant at p=(0.027) and the rule of thumb state that for any variable to statistically significant it must be between 0.000 to 0.05 as the thresh hold. In contrast, Domestic Credit to Private Sector DCPS has a weak positive correlation 0.07 with GDP, a weak negative correlation with inflation at -0.243 which is not statistically significant' Some of the correlations among these variables are weak in magnitude, several relationships stand out as both moderate in strength and statistically significant particularly those involving gross domestic product per capital growth rate connections to all the independent variables. The traditional and common rule of thumb is that a correlation that is less than 0.8 may not result in multicollinearity problem.

Cross-Sectional Dependence test

Table 3 presents the result of Pesaran cross sectional (CD) dependence test. This is an important issue to address because the presence of cross-sectional independence in the data series may give weak results. It is also a prerequisite for second generation unit root test. Therefore, Pesaran CD test is performed to check whether the series is cross-sectional dependent or independent. There is cross sectional dependence between the units if the p-value is less than 0.05. If the reverse is the case, it means there is cross-section independence between the units. For those that are cross sectional dependence, second generation unit root will be employed in unit root test methods in the stationary analysis while for those that are cross-sectional independence, first generation unit root test will used for unit root test methods in the stationary analysis.

Table 4: Pesaran Cross Sectional (CD) Dependence Test

Variable	CD-test	p-value	Corr	abs(corr)
GDP	5.710	0.000	0.096	0.156
DCPS	26.850	0.000	0.449	0.582
INFE	18.290	0.000	0.306	0.490
CS	45.580	0.000	0.763	0.763
HC	5.800	0.000	0.097	0.347

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TO	6.050	0.000	0.101	0.346
FDII	11.480	0.000	0.192	0.251
IQ	-0.890	0.376	-0.015	0.341

From table 3 the evaluation of cross-sectional dependence among the various economic and social variables in panel data is critical for understanding the relationships between countries. The CD test serves as a primary tool to assess whether observations across different countries are correlated. A p-value less than 0.05 indicates significant cross-sectional dependence suggesting the observations are not independent and may be influenced by common factor shocks. The p-values are 0.000 which suggest correlation across the countries for the variables tested. Institutional quality is the only variable with no cross-sectional dependence. Panel unit root test and cointegration test will be carried out.

Panel Unit Root Test

Panel data unit root test is conducted in this study to ascertain the stationary nature of each variable used in the models so as to avoid spurious regressions.

Table 5: Panel Unit Root (Pesaran Test)

Variables	Z[t-bar]	(1st Diff)	P-value	Stationarity	Conclusion
GDP	-7.910	—	0.000	(I)(0)	Stationary
DCPS	-5.281	—	0.000	(I)(0)	Stationary
INFE	2.758	-5.637	0.000	(I)(1)	Unit Root
CS	-5.410	—	0.000	(I)(0)	Stationary
HC	-4.230	—	0.000	(I)(0)	Stationary
TO	-0.700	-8.421	0.000	(I)(1)	Unit Root
FDII	-3.782	—	0.000	(I)(0)	Stationary
IQ	0.356	-8.993	0.000	(I)(1)	Unit Root

Explanatory Notes: GDP=Gross Domestic Product per capital growth, DCPS = Domestic Credit to Private Sector, INFE = Informal Economy, CS = Capital Stock, HC = Human Capital, TO = Trade Openness, FDII = Foreign Direct Investment Inflows, IQ = Institutional Quality. A coefficient is significant if p-value is less than 3% significant level employed for this study, which means the null hypothesis is rejected and hence the variables are stationary, however if otherwise (ie the p-value is greater than 3%), the null hypothesis is rejected, meaning all the panel contain unit roots.

Source: Authors computation 2025.

Co-integration Test

A co-integration test is necessary whenever the series in the equations specified are not all stationary, i.e when they are 1(1) uniformly or mix of 1(1) or 1(0). As discussed above, unit root test show that there is no equation that has all its variable as being stationary, with each having a mix of 1(1) and 1(0) series. Applying the conventional OLS method to estimate the equation is prone to spurious regression. This therefore necessitate co-integration test to check if a long run relationship exists among the non-stationary variables. Kao-Engel granger test is used to test for presence or absence of long run relationship.

Table 6: Kao Cointegration Test

Models	T-statistics	P-value	Conclusion
Model 1	-10.6226	0.0000	Cointegration exist
Model 2	-10.6226	0.0000	Cointegration exist

Explanatory Notes; Equation 1 evaluates the effect of Domestic credit to private sector, informal economy, on GDP for the first model and Equation 2 evaluates the intercation of informal economy and the monetary policy variables Domestic credit to private sector on GDP for the second model. The decision rule is that a test is statistically if its p-value is less than or its 5%, which means that H_0 is rejected thereby confirming the existence of cointegration. But if otherwise H_0 is accepted implying that there is an absence of cointegration.

Source: Authors computation 2025.

The Pedroni cointegration test also confirms the variables are cointegrated. Normality Test is also carried out, the result are on Table 6. Panel ARDL is carried out and a Hausman test is performed to choose between PMG and MG estimates of the regression analysis.

Presentation of Regression Equation Estimates

In this section the estimates of the 2 models specified in chapter 3 are presented in a tabular form as specified below. The estimates of the equation test for the effect on GDP Per Capital Growth Rate of the selected 15 countries in West Africa in model 1 while model 2 checked the interactions of the INFE*DCPS on GDP per capital growth rate.

Table 7: Long-run Estimates of the Models on the effect of Domestic Credit to Private Sector and Informal Economy on Economic Growth.

Variables	Model 1	Model 2

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	Coef	Z stat	P-value	Coef	Z stat	P-value
DCPS	-0.03773	-1.30	0.194	-0.35896	-2.34	0.019
INFE	-0.14716	-3.09	0.002	-0.22382	-3.61	0.000
CS	23.6e-06	3.91	0.000	2.04e-06	3.35	0.001
TO	0.003228	0.37	0.713	0.09759	1.05	0.292
HC	0.04947	1.08	0.280	0.05497	1.19	0.233
FDII	0.27968	6.00	0.000	0.24644	5.25	0.000
1Q	1.25734	6.33	0.000	1.23672	6.06	0.000
INFEDCPS	-	-	-	0.00432	2.12	0.034
CON						
ECT(-1)						
VIF	1.63			10.74		
Auto-correlation	12.749		0.0031	12.614		0.0032
Heteroscedasticity	554.77		0.0000	534.82		0.0000
Normality	E:3.30		0.1922	E:3.85		0.1460
	U:14.72		0.0006	U: 16.68		0.0002
Obs	512			512		
Panel estimation method	PMG			PMG		

As seen on table 6, the long run coeff of DCPS -0.03773 and -0.3589 are negative in model 1 and 2, both are not statistically significant as ($p>0.10$). implies DCPS does not significantly affect growth in the long run. INFE coeff in model 1 and model 2 are -0.14716 and -0.22382 with p values 0.002 and 0.000. they are negative and statistically significant. A 1% increase in informal sector size reduces GDP growth by 0.147% and 0.223% in model 1 and 2 respectively. CS, FDII, IQ coeff are positive and statistically significant in model 1 and 2 in the long run. The coeff of DCPS is negative and significant in model 2 (-0.359, $p<0.05$), the interaction INFEDCPS is positive and significant in model 2 (0.004, $p<0.05$) which implies DCPS helps mitigate the negative effect of the INFE in model 2 (0.224, $P<0.01$). HC and TO are positive but insignificant in the long run and short run for the two models.

Discussion of Findings

The results of the findings show that INFE and DCPS in model 1 are negative, both have a negative effect on GDP growth as 1% increase in INFE reduces GDP growth by 0.147% in model 1, likely due to lower tax revenue, reduced productivity and weaker regulation, the study aligns with the consensus that high informality reduces growth (Torres-Favela and Luna, 2025). DCPS is negative and does not significally affect GDP growth in the long run in model 1, which aligns with finding by Arcand *et al.* (2015) that excessive credit can harm growth which may indicate misallocation of credit.

In model 2 DCPS and INFE are negative and significant, this shows DCPS is associated with lower GDP growth as suggested by Rousseau and Wachtel (2011) that excessive credit expansion may lead to finacial loss reducing growth. Some other studies like (Levine, 2005) finds a positive relationship between financial development and growth. INFE suggest high informality harms growth, consistent with(La Porta and Shleifer, 2014). The interaction term INFEDCPS is postive and significant, this implies that DCPS moderates the negative effect of Informality on growth. Ulyssea (2018) showed that credit access helped informal firms formalize and improve productivity. CS, FDI and IQ are key drivers of growth in modeL 1 and model 2.

Conclusion

The study highlighted that Informal Economy and Domestic Credit to the Private Sector have negative effect on Economic Growth The interaction between the Informal Economy and Domestic Credit to Private Sector is Positive and significant, Domestic credit to private sector helps mitigate the effect of the informal economy on economic growth. Foreign Direct Investment and Institutional Quality are significant in the longrun for all the models hence they are important key drivers of growth.

Recommendations

1. The study recommends strengthening capital acccumilation with efficiency by increasing investment in infrasture, technology and public capital,
2. Formalizing the informal. economy through tax incentives, simplify business registration and labour market flexibility this will improve Total Factor Product which aligns with neoclassical growth policy framework of convergence helping the economy move to its steady state.
3. Foreign direct investment and institution should be leveraged for sustainable growth.

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