



GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH: AN EMPIRICAL INVESTIGATION OF THE PUBLIC EXPENDITURE AND ECONOMIC GROWTH PATTERN OF WEST AFRICAN COUNTRIES

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Abstract

The effect of public expenditure on economic growth remains debatable in the literature. This paper conducts an empirical investigation of the effects of public expenditure on economic growth in West Africa, taking into consideration the impact of institutional quality and conflict on government's spending, covering the period 1985-2019. As government's spending covers both consumption and investment activities, government expenditure was divided into consumption and investment expenditure and their differential impacts on growth investigated. The results show that government consumption expenditures undermine per capital growth in West Africa during the study period while investment expenditure positively contributes to economic growth. Institutions matter for economic growth as the estimations indicate strong and quality institutions have positive effects on per capita growth in West Africa.

Keywords: Economic Growth; Public Expenditure; Institutional Quality; Consumption Expenditure; Investment Expenditure; West Africa



INTRODUCTION

The impact of public expenditure on economic growth is an issue for analysis and debate, particularly in developing countries. A critical question is whether public expenditure increases the long-term steady-state growth rate of an economy. While the general consensus is public expenditure, particularly physical infrastructure or human capital, can be growth-enhancing, although the financing of such expenditures can also be growth-retarding due to disincentive effects associated with taxation (Kweka and Morrissey, 2000), the exact effects of public expenditure on growth is still contentious.

Numerous studies have examined the relationship between public expenditure and economic growth. While some point to a positive relationship (Taiwo, 2011; Saez and Garcia, 2006; Devaranjan et al., 1996; Holmes and Hutton, 1990; Aschauer, 1989; Ram, 1986), other empirical research finds that public expenditure has a negative impact economic growth (Ramayandi, 2003; Miller and Russek, 1997; Barro, 1990; Grier and Tullock, 1989). The mixed findings regarding the effects of public expenditure on economic growth suggest the need for deeper research and analysis to uncover the main drivers of public expenditure efficiency.

The efficiency of public expenditure and its impact on economic growth is affected by strong economic and governance institutions. Research have shown that good and quality institutions are important determinants of economic growth (Buckiewicz and Yannikaya, 2011; Acemoglu et al. 2008; Barrios and Schaechter, 2008; Torsten and Tabellini, 2007; Williamson, 2000; Barro, 1999; Hall and Jones, 1999; North, 1990). La Porta et al. (1997,1998) found countries with strong legal system that provide proper protection to investors against expropriation by entrepreneurs are likely to have well-developed financial markets. With respect to the African continent, Collier (2006), Ndulu (2006) and International Monetary Fund (2003) made parallel arguments, which indicate to accelerate Africa's economic performance, the quality of institutions should be made robust, reliable and sustainable.

Cross-countries studies (Easterly and Levine, 1997) find the conventional factors of growth, labour and capital accumulation, do not fully explain Africa's experience and have switched to an institutional explanation (Aron, 2000). In view of the aforementioned, this paper examines the relationship between public expenditure and economic growth in West Africa taking into consideration the effects of institutional quality. An empirical analysis of seven five-year periods is undertaken to examine the pattern of public expenditure and economic growth over the period 1985-2019 in West Africa and identify components of expenditure that are growth-enhancing and growth-retarding.

This paper further analyzes the effects of institutional quality on the efficiency of public expenditure in West Africa. As several parts of West Africa experienced armed conflicts during the estimation period, the analysis also considered the effects of conflict on growth. Government expenditures are divided into two, consumption expenditure and investment expenditure, while other growth determinants including population, initial real Gross Domestic Product (GDP) per capita, trade openness represented by current balance and total international trade are estimated in the model.

LITERATURE REVIEW

Review of the Theoretical Literature

The effect of government expenditure on economic growth is still debatable amongst economists, policy makers and politicians. The contentious issue is whether the impact of government size on economic growth is positive, negative or insignificant. Different schools of thought have different conclusions on this contentious issue; hence, several theories have emerged that attempt to explain the relationship between expenditure and economic growth. The key theories are briefly discussed in this section.

The Keynesian theory

The Keynesian theory indicates that during economic recession, a policy of budgetary expansion should be undertaken to increase the aggregate demand in the economy thus boosting the GDP. The theory considers public expenditures as an exogenous factor which can be utilized as a policy instrument to promote economic growth (Guandong and Muturi, 2016). Taking on the perspective of the Keynesian theory, an increase in the government consumption is likely to lead to an increase in employment, profitability and investment through multiplier effects on aggregate demand. Hence, government expenditure increases aggregate demand, which provokes an increased output depending on expenditure multipliers (Guandong and Muturi, 2016).

On the other end of the Keynesian theory are Classical, the Neo-classicals and the Public Choice Theorists, who claim that government expenditure is bad for economic growth as a result of the crowding-out effect – as the spending by the government displaces critical investments by the private sector due to resource constraints. Hence, the relationship between the two is negative (Lowenberg, 1990). Public choice theorists argue that as the government size increases, and given the distortionary effects of taxation, government levels of inefficiencies are bound to increase, hence government spending is more likely to reduce economic growth.

The Wagner's Law of Increasing State Activities

Adolph Wagner articulated his “law of rising public expenditures” by analysing trends in the growth of public expenditure and in the size of public sector. Wagner (1912) argues that economic growth is the fundamental for public expenditure growth. The theory posits that there is a long-run relationship between economic growth and public expenditure. Wagner (1912) emphasizes that as income increases; there is a tendency for public expenditure to rise. Wagner (1912) further noted that there is a direct relationship from economic growth to public expenditure.

Rostow - Musgrave Theory

Musgrave framework states that fiscal policy influences economic growth through its impact on allocation efficiency, the stability of the economy and the distribution of income (Guandong and Muturi, 2016). Musgrave (1999) undertook research on growth of public expenditure and concluded that, at the early stages of economic development, the rate of growth of public expenditure will be very high because government provides the basic infrastructural facilities (social overheads). The theory argues that given the projects undertaken by the government are capital intensive, government expenditure will increase rapidly. Investment in health, education and other social infrastructures become essential to move the economy to a take-off stage of economic development.

Review of the Empirical Literature

Several studies on the relationship between public expenditure and economic growth have been conducted within and across countries. While some studies find positive relationship, several others have uncovered negative relationship between expenditure and economic growth. A brief review of the empirical literature is provided in this section.

Table 1 summarizes the relevant studies that find positive relationship between public expenditure and economic growth. There are strong similarities in the findings and variables used to assess the effects of public expenditure on economic growth. The studies indicate that components of public expenditure have different effects on economic growth. Expenditures on health, education, transport and communication and housing sector expenditure have positive growth effects in developing countries (Alshahrani and Alsadig, 2014; Nurudeen and Usman, 2010; Ghosh and Gregoriou, 2008). These findings are consistent with the Keynesian Theory which considers public expenditure as a key fiscal policy tool that can be used to foster economic growth (Guandong and Muturi, 2016).

Table 1 Positive estimation of the relationship between public expenditure and economic growth

Study	Estimation Period	Estimation Approach	Dependent Variables	Key Independent Variables
Mazorodze (2018)	1979-2017	ARDL, DOLS, CCR	GDP	INV, CON
Abdieva, Baigonushuva and Ganiev (2017)	2000-2013	Engle-Granger Cointegration	GDP	GE
Kimaro et al. (2017)	2002-2015	GMM	GDP	GE
Leshoro (2017)	1976-2015	ARDL	GDP	INV, CON
Muyaba(2016)	1991-2015	ARDL	GDP	GE
Guangdon and Muturi (2016)	2006-2014	Regression Model	GDP Per capita	GE
Al-Fawwaz (2016)	1980-2013	OLS	GDP	GE, CON
Alshahrani and Alsadig (2014)	1969-2010	Regression Model	GDP	HE, HSE, INV
Attari and Javed (2013)	1980-2010	Time Series Analysis	GDP	INV, CON
Egbetunde and Fasanya (2013)	1970-2010	ARDL	GDP	INV, CON
Wahab (2011)	1960-2004	Regression Model	GDP	INV, CON
Nurudeen and Usman (2010)	1979-2007	Regression Model	GDP	INV, CON, ED, HE, TCE
Ghosh and Gregoriou (2008)	1972-1999	GMM	GDP	INV, CON, HE, ED
Jiranyakul and Brahmasrene (2007)	1993-2006	Co-integration Analysis	GDP	GE
Bose,Hague and Osborn (2007)	1970-1980	Regression Model	GDP	INV, CON, ED

ARDL=Autoregressive Distributed Lagged, DOLS=Dynamic Ordinary Least Square, CCR=Canonical Cointegrating Regression, GMM=General Moment Model, OLS=Ordinary Least Square, INV=Investment Expenditure, CON=Consumption Expenditure, GE=Government Expenditure, HE=Health Expenditure, HSE=Housing Sector Expenditure, TCE=Transport and Communication Expenditure.

Other studies find negative and significant effect of public expenditure on economic growth. In table 2, several studies that find negative growth effects of public expenditure are summarized. While several studies used general government expenditure as the key independent variable (Oloaye and Oladipo, 2019; Saez et al. 2017; Muyaba, 2016; Chirwa and Odhiambo, 2016; Ndambiri et al. 2012), few studies controlled for components of public expenditure, such as education expenditure, health expenditure and social security expenditure (Guandong and Muturi, 2016; Nurudeen and Usman, 2010). Studies that separated public expenditure into components find that consumption expenditure and public spending on recurrent costs have stronger negative effects on growth than public expenditure in general.

Results documented in table 2 are not consistent with the Keynesian Theory. However, the results indicate and validate that public expenditure do matter for economic growth. The results suggest fiscal policy influences economic growth and support Musgrave Framework which argues that fiscal policy affects allocation efficiency and economic growth (Musgrave, 1999).

Table 2 Negative estimation of the relationship between public expenditure and economic growth

Study	Estimation Period	Estimation Approach	Dependent Variables	Key Independent Variables
Oloaye and Oladipo (2019)	1986-2016	VECM	GDP	GE
Radhi (2018)	1990-2014	ARDL	GDP	CON, INV
Saez et al. (2017)	1994-2012	Panel data Analysis	GDP	GE
Guandong and Muturi (2016)	2006-2014	Regression Model	GDP	SSE, GE, ED, HE
Muyaba(2016)	1991-2015	ARDL	GDP	GE
Guangdon and Muturi (2016)	2006-2014	Regression Model	GDP Per capita	GE
Chirwa and Odhiambo (2016)	1970-2013	ARDL	GDP	GE
Hasnul (2015)	1970-2014	OLS	GDP	INV, CON
Ndambiri et al. (2012)	1982-2000	GMM	GDP	GE
Butkiewicz and Yanikkaya (2011)	1970-1999	SUR	GDP per Capita	CON, P, TRD, INS,
Taban (2010)	1987-2006	ARDL	GDP	INV, CON
Nurudeen and Usman (2010)	1979-2007	VECM	GDP	INV, CON, ED, HE, TCE

VECM=Vector Error Correction Model, ARDL=Autoregressive Distributed Lagged, OLS=Ordinary Least Square, GMM=General Moment Model, SUR=Seemingly Unrelated Regression, VECM=Vector Error Correction Model, INV=Investment Expenditure, CON=Consumption Expenditure, GE=Government Expenditure, HE=Health Expenditure, HSE=Housing Sector Expenditure, TCE=Transport and Communication Expenditure, SSE=Social Services Expenditure P=Population, TRD=Trade which is the sum of imports and exports, INS=Institutional Quality

In table 3, studies that assessed the growth effects of institutional quality are summarized. The findings of the studies point to a positive relationship between institutional quality and other growth variables such as trade and human capital. The studies further show institutional quality has long-run growth effects in both developed and developing countries.

Table 3 Estimations of institutional quality on public expenditure and economic growth

Study	Estimation Period	Estimation Approach	Dependent Variable	Key Independent Variables
Rizvi (2019)	1995-2017	Regression Model	GDP	HE, P, ED, INS
Maruta et al. (2019)	1980-2016	Regression Model	GDP	AID, INS,
Nguyen et al. (2018)	2002-2015	SGMM	GDP	INS, FDI, TRD
Asghar et al. (2015)	1990-2013	ARDL	GDP	INS
Mobarak and Karshanasan (2012)	1996-2007	Panel data analysis	GDP	INS
Valeriani and Peluso (2011)	1950-2009	Pool Regression	GDP	INS
Cooray (2009)	1996-2003	Regression Model	GDP	GE, INS
Ulubasoglu and Doucouliagos (2004)	1990-1999	Regression Model	GDP	INS

Adkins et al. (2002)	1982-2000	Stochastic Frontier Analysis	Economic Freedom	INS
Vijayaraghavan and Ward (2001)	1975-1990	SUR	GDP	INS
Grogen and Moers (2001)	1990-1998	Regression Model	FDI	INS
Ali and Crain (2002)	1975-1998	Regression Model	GDP	INS

Table 3...

ARDL=Autoregressive Distributed Lagged, SGMM=Special General Moment Model, SUR=Seemingly Unrelated Regression, INV=Investment Expenditure, CON=Consumption Expenditure, GE=Government Expenditure, HE=Health Expenditure, HSE=Housing Sector Expenditure, TCE=Transport and Communication Expenditure, SSE=Social Services Expenditure, P=Population, TRD=Trade which is the sum of imports and exports, INS=Institutional Quality, AID=Foreign Aid, FDI=Foreign Direct Investment

METHODOLOGY

Model and Estimation Technique

Regression analysis is a common method used to evaluate the determinants of economic development, including both short and long-term factors. This approach draws on several growth theories, including the Harrod-Domar, neo-classical, and endogenous growth theories, which emphasize the significance of capital, public policy, and investment in driving economic growth.

To investigate the relationship between government quality and the effects of public expenditure on long-run growth, the following econometric model is specified:

$$\Delta \text{GDP}_{i,t} = \alpha + \beta \text{GDP}_{i,t} + \gamma \mathbf{G}_{i,t} + \delta \mathbf{X}_{i,t} + \varepsilon_{i,t}$$

Where, $\Delta \text{GDP}_{i,t}$ is the real per capita GDP growth rate in country i in period t ; $\text{GDP}_{i,t}$ is the initial GDP per capita; $\mathbf{G}_{i,t}$ is a vector of variables related to government expenditure; and $\mathbf{X}_{i,t}$ is a vector of other explanatory variables that have been found to be key determinants of GDP growth. The analysis is based on data from West African countries over the period 1985-2019. Variables are measured as the five-year moving average, except for $\text{GDP}_{i,t}$ which is the GDP per capita value at the beginning of each five-year period. Constructing the dependent variable as a five-year forward moving average introduced serial correlation in the country-specific error terms such that, despite of being consistent, the standard errors of the Ordinary Least Square (OLS) estimator are biased. Therefore, as an alternative estimation method that addresses this problem, Seemingly Unrelated Regression (SUR) is used (Zellner, 1962).

The SUR model proposed by Zellner (1962), is a collection of two or more regression equations which can be analyzed under a broad range of conditions. By jointly analyzing a set of regression equations, the SUR has the potential to provide more precise estimates and predictions (Zellner, 2006). An essential feature of the SUR model is that disturbances are assumed independent. Barro and Lee (2005) argue that SUR technique is useful for time-series

data analysis than General Moment Method (GMM) because fixed-effect and first-differenced GMM estimates eliminate time-persistent cross-section information.

Data for the growth of real GDP per capita are from the Maddison Project Database (2018) developed at the University of Groningen in the Netherlands. The vector $\mathbf{G}_{i,t}$ comprises two government expenditure categories: Government consumption expenditure (CON) and government investment expenditure (INV). Data on government's expenditure is obtained from the World Development Indicators and measured as percentage of GDP. Other explanatory variables include the population growth rate (P), the current balance (CB) and trade (TRD). CB and TRD are measured as a share of GDP. As a further variable that influences GDP growth, a measure of Institutional quality (INS) is included. Data on institutional quality is based on the governance database compiled by Kaufmann, Kraay and Mastruzzi (2006). This data does not cover the whole sample period but ranges from 1996 to 2019.

Finally, as countries in the West African region have experienced different episodes of internal and external armed conflicts, a variable that measures periods of conflict (CONFLICT) is included in the estimation. The data on armed conflicts is obtained from the Uppsala Conflict Data Program (UCDP) at the Uppsala University and the Centre for the Study of Civil War at the Peace Research Institute Oslo (PRIO). The data stems from the latest version and covers the whole sample period, i.e., 1985-2019. The dataset is further described in Gleditsch et al. (2002).

Data Description

Five-years moving averages were calculated for each variable presented in this paper. There are seven five-year periods for the data covering 1985-2019, beginning 1985-1989 and subsequently following. For institutional data covering 1996-2019, there are four five-year periods and one four-year period. The particular data time series chosen based on the availability.

This paper uses data on real GDP per capita to represent economic growth while government expenditure is divided into two categories, consumption expenditure and investment expenditure. The data on real GDP per capita growth rate (%) was obtained from the Maddison Project Database (2018) developed at the University of Groningen in the Netherlands. Data on government's expenditure was obtained from the World Development Indicators. This paper uses total consumption expenditure (% of GDP), while gross fixed capital formation (% of GDP) represents investment expenditure. Data on population growth rate (%), trade (% of GDP) and current balance (% of GDP) were also obtained from the World Development Indicators. The aforementioned data covered the period 1985-2019 for all West African countries.

Several variables to represent institutional quality were used in previous studies (Kaufman et al. 2009; Acemoglu et al. 2005; La Porta et al. 2002; Djankov et al. 200; Botero et al. 2004). They include democracy, autocracy, rule of law, government effectiveness, regulatory quality, control of corruption, voice and accountability, political instability, ease of doing business, etc. This paper uses the aforementioned indicators of institutional quality constructed by Kaufman et al. (2009). Data on institutional quality was obtained from the governance database compiled by Kaufmann, Kraay and Mastruzzi (2006) covering the period 1996-2019.

Studies (Collier et al., 2003; Gleditsch et al., 2002) find conflicts to have negative relationship with economic growth. Given the vulnerability of the West African region to armed conflict, data on both internal and external armed conflicts in West Africa was obtained from the Uppsala Conflict Data Program (UCDP) at the Uppsala University and the Centre for the Study of Civil War at the Peace Research Institute Oslo (PRIO) covering 1985-2019.

ANALYSIS AND RESULTS

OLS regression is employed to estimate the basic model. This technique analyzes the relationship between several independent variables and a dependent variable and produces consistent and optimal results. OLS regression is useful for analyzing patterns and relationship using time-series data.

Estimations Using OLS

Table 4 captures the results from a range of estimations conducted on the growth effects of public expenditure using OLS regression. The table is divided into four (4) columns, each containing results from an estimation of the effects of government expenditure on Real GDP Growth.

In column 1, the effect of expenditure on growth using OLS regression is captured. From 1985-2019, government consumption expenditures have negative and significant effect on per capita economic growth while investment expenditures have positive effect on per capita economic growth for the same period. The growth effect of population, current balance and trade are 2.83%, -0.01% and 0.01% respectively. Population growth have the most significant and positive effect of per capita growth in West Africa of all the growth variables for the same period.

The estimates reported in column 2 shows that consumption expenditures have negative and significant growth effect while investment expenditures have positive growth effect despite the inclusion of conflict in the model. Contrary to the theoretical prediction of the damaging effect of conflict on growth, conflict is reported to have positive but insignificant effect on

economic growth in West Africa during the period 1985-2019. Population growth and trade also have positive growth effect while current balance negatively impacted growth in West Africa between 1985 and 2019.

To assess the quality of government expenditure on growth, a variable that captures institutional quality of public expenditure on growth was included in the model covering the period 1995-2019 for all West African countries. With the introduction of institutional quality in the model, the negative effect of government expenditure on growth increases, the growth effect of current balance becomes positive and the positive impact of trade increases and becomes significant while population growth has positive and significant effect. Particularly, the estimation shows that an increase in institutional quality leads to 1.57% increase in per capita growth in West Africa during the period 1995-2019.

Column 4 captures the combined effect of conflict and institutional quality on public expenditure and growth in West Africa between 1995 and 2019. The positive growth effect of both conflict and institutional increases when combined while investment expenditure, population, current balance, and trade have positive effect. Consumption expenditure has negative and significant effect on per capita growth.

Table 4: Effects of Government Expenditure on Growth-OLS Estimations

	Column 1		Column 2		Column 3		Column 4	
Number of Observations	112		112		80		80	
Number of Countries	16		16		16		116	
Time Period	1985-2019		1985-2019		1996-2019		1996-2019	
	OLS	P-Value	OLS with Conflict	P-Value	OLS with INS	P-Value	OLS With Conflict and INS	P-Value
CON	-0.27***	0.00	-0.27***	0.00	-0.35***	0.00	-0.35***	0.00
INV	0.03	0.36	0.03	0.34	0.01	0.88	0.01	0.87
P	2.83***	0.00	2.84***	0.00	4.15***	0.00	4.13***	0.00
CB	-0.01	0.64	-0.02	0.59	0.04	0.28	0.04	0.29
TRD	0.01	0.74	0.01	0.49	0.04*	0.07	0.04*	0.07
CONFLICT			0.34	0.65			0.18	0.85
INS					1.57	0.11	1.63	0.11

OLS-Ordinary Least Square; SUR-Seemingly Unrelated Regression; Real GDP Per Capita is the dependent variable; *** Significant at 1% level; ** Significant at 5% level; *Significant at 10% level.

Estimations using SUR

OLS regression was used to estimate the basic models which contain 5 years average data for seven periods, covering 1985-2019. The estimates could suffer from reverse causality

due to limited precision power of the basic model. The results of the basic model may be insensitive to outliers in the data. Therefore, Seemingly-Unrelated Regression was used to address the inefficiencies of OLS.

Table 5 show results of estimations conducted using SUR technique for the same data covering the same period, 1985-2019, for West Africa.

Using SUR technique, column 1 shows the results of the effect of expenditure on per capita growth. Between 1985 and 2019, government consumption expenditures have negative and significant effect on per capita economic growth while investment expenditures have positive effect on growth. While current balance has negative impact of growth, population and trade positively impacted growth in West Africa during the same period. With SUR estimations, the p-values of all variables improved. The improvement in the P-values of all variables is a reflection of the precision power of SUR technique.

Column 2 shows the effect of conflict on growth in West Africa during the period 1985-2019. During the period, nine (9) countries of the sixteen (16) countries covered in this research experienced armed conflict. Despite the inclusion of conflict, consumption expenditure remains negative and significant to per capita growth in West Africa. Population and trade have positive effect on growth. Consistent with the initial finding, conflict is positive but insignificant to growth in West Africa. With the use of the SUR technique, the P-values of all variables increased which reflects the robustness and efficacy of the SUR technique.

The effect of institutional quality on the effectiveness of government expenditure in West Africa between 1995 and 2019 is shown in column 3. Institutional quality is seen to have positive and significant effect on growth while consumption expenditures have negative and significant growth effect. Trade, population and current balance have positive impact on growth in West Africa for the same period. The estimations suggest that institutional quality matters for economic growth in West Africa. The results confirm a wide body of theoretical and empirical studies that find poor institutional quality such as corruption to be inimical to growth (United Nations Development Programme, 2011; World Economic Forum, 2008; Gray and Kaufman, 1998). The overall estimation is relevant and useful as shown by improvements in the P-values of all variables.

Column 4 captures the combined effect of conflict and institutional quality on public expenditure and growth in West Africa for the period 1995-2019. When combined, the magnitude of the growth effect of both conflict and institutional quality increases. Consumption expenditures have negative and significant growth effect while investment expenditures, population, trade and current balance have positive effect on per capital growth for the same period. While the estimated growth effect of conflict is inconsistent with previous studies (Collier

et al., 2003; Gleditsch et al., 2002), the conflict coefficient is not significant and hence, not useful. Importantly, unlike the basic model, the predictability and precision of the model improved as a result of improvements in the P-values of all variables.

Table 5: Effects of Government Expenditure on Growth-SUR Estimations

	Column 1		Column 2		Column 3		Column 4	
Number of Observations	112		112		80		80	
Number of Countries	16		16		16		116	
Time Period	1985-2019		1985-2019		1996-2019		1996-2019	
	SUR	P-Value	SUR with Conflict	P-Value	SUR with INS	P-Value	SUR With Conflict and INS	P-Value
CON	-0.27***	0.00	-0.27***	0.00	-0.35***	0.00	-0.35***	0.00
INV	0.03	0.34	0.03	0.32	0.01	0.87	0.01	0.87
P	2.83***	0.00	2.84***	0.00	4.16***	0.00	4.13***	0.00
CB	-0.01	0.63	-0.02	0.58	0.04	0.25	0.04	0.25
TRD	0.01	0.49	0.01	0.47	0.04**	0.05	0.04**	0.05
CONFLICT			0.34	0.64			0.18	0.84
INS					1.57*	0.08	1.63*	0.09

OLS-Ordinary Least Square; SUR-Seemingly Unrelated Regression; Real GDP Per Capita is the dependent variable; *** Significant at 1% level; ** Significant at 5% level; *Significant at 10% level.

CONCLUSIONS AND RECOMMENDATIONS

In order to improve economic performance, fiscal authorities in West Africa must prioritize spending on productive economic activities over consumption activities. The investigation in this paper shows that consumption expenditure has negative effect on growth whereas investment expenditure has positive growth effect. Taking into account the tight resource envelope of several countries in West Africa, significant investment in capital formation will not only expand the resource envelope in the medium to long-term, but will positively contribute to economic growth.

While investment in capital formation is paramount, such investment could be undermined by weak institutional quality. The empirical estimations show that stronger institutions are essential for economic growth. It is therefore important that significant investments are made in strengthening institutional quality. In particular, reducing corruption and enhancing accountability will yield significant positive growth effects. Strong institutions will create the enabling environment for investment and private sector development while at the same time enhancing the efficiency of public expenditure. Without strong institutions, the positive impacts of investment expenditure will be moderated.

Improvement in trade openness and international trade are essential for economic growth in West Africa. As the international trade system improves and opportunities are accorded to low-income and developing countries to effectively participate in international trade, efforts to improve trade openness and the contribution of low-income economies to international trade will yield positive growth dividends. The African Continental Free Trade Area (AfCFTA), currently underway in Africa, presents enormous opportunities for countries in West Africa to expand and benefit from increased international trade. However, as several economies in West Africa are still struggling to develop their domestic productive capacity and have weak institutions, they risk losing out on the benefits and opportunities offered by AfCFTA.

Although the estimations reveal positive growth effects of population, it must be noted that the data did not take into account the quality of the population. The quality of the population is very fundamental in determining the growth effects of population. In a study conducted by Agell, Lindh and Ohlsson (1997) they find that the inclusion of a measure of demographic structure, the percentage of non-working age population, changes the estimated growth effects from negative and significant to positive and significant. The current study did not control for quality of population and therefore, additional analysis is required to adequately assess the growth effects of population.

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