

External Capital Financing And Infrastructural Development Of West African Countries: An Impact Analysis

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Abstract

This work is an impact study of external capital financing on infrastructural development of West Africa (WA) countries for a 32 year period (1986-2017). External capital financing was measured by external loans (EXLs), while gross fixed capital formation (GFCF) became proxy for infrastructural development. Five unit root test criteria: Levin, Lin & Chu t; Breitung t-stat; Im, Pesaran and Shin W-stat; ADF-Fisher Chi-square, and PP-Fisher Chi-square were used to confirm stationary traits of the variables. Normal distributive pattern of the series was figured out with descriptive statistics. Panel least square (PLS), together with the Hausman test, the random effect (RE) estimator was used as a preferred analytical technique. The findings showed that external loans had a negative, but significant impact on gross fixed capital formation. The economic implication was that the state of infrastructures in WA was not enhanced by means of external capital within the sample period. The study recommended that governments of WA countries should minimize cost of governance as an antidote to post covid-19 Africa; refrain from external debt as much as possible, but since debt is inescapable, it should be used for productive investments or growth-enhancing investments rather than maintaining their spending plans. Prudent application of borrowed funds should form part of fiscal responsibility of African leaders in order to concretize critical investment decisions.

Keywords: External Capital Financing, Infrastructural Development, Panel Least Square, West Africa

INTRODUCTION

External capital is widely considered to play an invaluable role in promoting massive infrastructural development in developing sub-regions like West Africa. Increased production in any economy *ceteris paribus*, relies on capital formation, and capital formation needs investment plus commensurate amount of savings as good complement. In consequence, two of the relevant puzzles for developing countries include how to encourage investment, and how to enhance the level of saving to finance increased investment. A close assessment of these narratives lends credence to the dual-gap theory by [1], which prescribe external capital as an essential input meant to bridge the saving-investment and foreign exchange gaps that characterize developing economies. In past decades, survival and sustainability of accelerated infrastructural developments constitute the basic objectives of most developing economies. Availability of capital and the rate of its formation determine their financial strength to achieve developmental objectives. The strategic role of capital in fast-tracking developmental agenda has been established by most writers on the premise that capital is the lifeblood of economic activities.

Capital means money, property, asset owned by an individual, company or government, and used for investment [2]. Similarly, capital can be viewed in three dimensions: (a) cash or money (e.g. naira, dollar, euro used for investment); (b) material wealth in form of property (e.g. plant, machinery used for production process), and (c) economic resource (e.g. human capital) that can be used to generate economic wealth. Thus, finances are created through savings to procure land, erect buildings, acquire machinery, plants and hire labour for production process. Savings and investment create domestic capital, which is inadequate in supply; hence the need for external capital.

Capitals imported from wealthier jurisdictions exist in two forms: official flows (aid, grants, technical assistance, etc) and private flows (FDI, diaspora remittances and external loans). Official capital flows refer to the transfer of resources at a concessional rate from a developed country or international financial institutions to developing or underdeveloped countries. Private capital flows include all the investments made by individuals, foreign companies in various sectors of

the economy, as well as external loans (including export credits). The basic difference between these two forms of flows is while official capital flows are induced by welfare motive, private capital flows are precipitated by profit motive [3].

When countries grapple with insufficient resources, they may resort to internal and external borrowing to support developments. Borrowing externally becomes mandatory in order to bridge the gap between such countries' foreign exchange receipts and spending. External capital financing is a critical requirement because domestic resources very often are in short supply. External capital or loan is part of the total debt a country is under obligation to repay foreign creditors. The debtors can be government, financial institutions or private households. Such debt includes money owed to private commercial banks, other governments, or international financial institutions e.g. IMF and World Bank, or trade arrears, among others.

Macroeconomic effectiveness of WA countries has not been easily foreseen or predicted over the past decades. Macroeconomic conditions of a country may be influenced by many common, but differing factors that include: (i) history; (ii) geography; (iii) accumulation of physical and human capital; (iv) global economy; (v) political economy; (vi) fiscal and monetary policies; and (vii) corruption [4] and [5]. Like most developing sub-regions, West Africa has been categorized among the poorest sub-regions of the world based on insufficient domestic capital formation attributed to the vicious circle of poor national output, poor national income and poor national saving [6].

In order to address capital shortages, most countries of the sub-region: Benin, Burkina Faso (Upper Volta), Cape Verde, Côte d'Ivoire (Ivory Coast), Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Sao Tome and Principe, Togo, and the United Kingdom Overseas Territory of Saint Helena) are exposed to international funding programmes, usually packaged as external loans. A review of external loans and gross investments (measured by gross capital formation as percentage of GDP) of some WA countries reveal varied trends and relationships [7]. In Nigeria, the largest economy in West Africa (77% of total GDP and 52% of the population), growth improved from 0.8% to 1.9% between 2017 and 2018. This was occasioned by improved state of affairs in the oil and non-oil subsector. Notwithstanding the high and spiking levels of external loans that necessitated debt relief for Nigeria in 2005, the rate of capital accumulation dropped steadily within the period. Gross capital investment as percentage of GDP dropped from 34% in 1981 to 5.5% in 2005. After debt relief in 2005, Nigeria's gross investment increased. Gross capital

accumulation (as percentage of GDP) increased from 5.5% in 2005 to 17.3% in 2010, though decreased slightly between 2011 and 2015, with an average of 13%.

The external borrowing pattern of Ghana (the second largest economy in WA) grew from 1980 to 2000, with external loans-GDP, rising from 56.74% in 1980 to 148% in 1989, averaging 47.4%. Gross investment was very low during the period, recording an average of 7.2%. Ghana's interest on external loans was rekindled between 1990 and 2000, with foreign debt to GDP soaring from 63.4% in 1990 to 125.5% in 2000. Similarly, gross investment grew significantly from 14.4% to 24% in 1990 and 2000 respectively. Gross investment increased from 24% in 2000 to 29% in 2005, recording an average of 24.5%. Notwithstanding the improved borrowing terms emanating from the reliefs in early 2000 and sustained positive growth performance, from 2007 to 2015, the country kept up an uptrend in external debt-to-GDP ratio, increasing to 70.6% of GDP at the end of 2015. This degenerated to unabated rise in fiscal deficits financed by incessant borrowing from the international capital market (ICM) at high interest rate and depreciation of local currency arising from unfavourable terms of trade. With the high interest payments that relate to the soaring debt stock, external loans have continued to compromise resources available for accelerating developments in the key sectors of Ghana, as well as other economies in the sub-region.

Accumulation of huge amount of external debt with accompanying debt service obligations appears to constrain efforts of most WA countries at maximizing public (infrastructural) investments; no thanks to the outbreak of coronavirus (or covid-19) that has continued to wreck global economy, inclusive of WA countries. While numerous existing studies [8] and [9] concluded its negative impact on public investment in Nigeria, [10] using panel regression model concluded that external debt had positive influence on investment in 13 severely indebted countries. In view of fewness of cross-sectional studies and contradictory empirical outcomes in this area, the specific objective of this investigation was to analyze impact of external capital financing on infrastructural development of WA countries within the period 1986 to 2017.

The significance of this study was to either confirm or contradict extant studies in the literature. Our study was, however, limited by inability to access some relevant secondary data of some of the WA countries. Admittedly, the data as obtained from Development Indicators published by the World Bank for 32 years (1986-2017) might contain some measurement errors that could impair robustness of the findings. Also, this study failed to examine effect of other avenues of

external capital financing in WA countries other than external debt. External debt remains an aspect of foreign capital flows; therefore, it is expected that further researches be directed to the other sources of foreign capital inflows

LITERATURE REVIEW

Empirical Review

Various studies have treated external capital financing and infrastructural development across many regions and sub-regions. These discourses provide insights into the subject and with benefit of hindsight reveal gaps in knowledge and rationale for further researches. In light of the usefulness of finance in promoting infrastructural development especially in developing sub-regions like WA, [11] examined the effect of public debt on private investment in Tanzania using secondary data obtained from the National Bureau of Statistics of Tanzania, Bank of Tanzania and World Bank datasets for the period 1970-2016. Autoregressive distributed lag (ARDL) bound test to co-integration was used to estimate the variables. The combined effects of domestic and external debt on private investment were statistically significant both in the short and long-run.

[8] studied the impact of components of public debt on investments in Nigeria both in the short and long-run using ARDL technique over the period 1981 to 2016. The findings proved that domestic debt had a positive effect on both private and public investment in the short and long-run, that is, domestic debt crowded-in both private and public investment but it did not attract FDI. Also, external debt had a positive effect on private investment, that is, it crowded-in private investment both in the short and long-run, but crowded-out public investment; and did not influence FDI. Moreover, the impact of external debts on all forms of investment in Nigeria was greater than domestic debts. In addition, the results showed that real GDP was a determinant of private investment, while interest rate was a driver of all forms of investment in Nigeria over the sampled period.

[9] examined the consequences of external loan on capital investment in Nigeria using data on government capital expenditure, external debt stock, debt servicing payments, inflation rate and exchange rate. While government capital expenditure was the explained variable, external debt and debt servicing payments constituted major explanatory variables; all were obtained from World Bank and Central Bank of Nigeria Statistical Bulletin covering the period 1996-2018. The variables were estimated using the ordinary least squares (OLS) multiple regression. The results showed that external debt had a negative and significant impact on capital investment, while debt servicing payments had a positive and significant effect on capital investment. In that regard, the controlling

variables (inflation and exchange rates) did not significantly affect capital investment. The study advocated wider focus on profitable capital investments if external debt must be acquired.

[12] assessed the macroeconomic effects of public debt in India using a structural vector autoregressive (SVAR) approach for the period 1980 to 2017. The macroeconomic makeup included economic growth, investment, interest rate and inflation. Findings indicated that public debt had an adverse impact on economic growth, a positive impact on long-term interest rate and a mixed response (both negative and positive) on investment and inflation. It was also found that domestic debt had a more adverse impact on the economy than external debt. The estimated variance decomposition analysis revealed that much of the variations among selected macroeconomic variables were explained by public debt and growth in India.

[13] explored the impact of foreign debt on selected macroeconomic indicators in Nigeria making external debt stock, external debt service payments and exchange rate independent variables as a function of gross domestic product (GDP) and gross fixed capital formation (GFCF) for the period 1980-2010. Relevant data were collected from secondary sources such as the Debt Management Office, Central Bank of Nigeria Statistical Bulletin and internet materials were analyzed using multiple regressions. It was discovered that Nigeria's foreign debt stock had a significant effect on economic growth. It also revealed that there was a significant relationship between Nigeria's debt service payments and gross fixed capital formation.

[14] examined the impact of public debt and economic growth, investments, and economic development in 17 European countries utilizing data series for the period 1980 to 2012, and analyzed using descriptive statistics and panel least square. The study found out that as public debt increased, the cost of servicing it rose significantly. This resulted in a decline in investments, which in turn negatively affected economic growth. The study concluded that public debt affected economic growth indirectly by reducing investments through high-interest rates, increased uncertainty, and high debt repayment costs.

[15] assessed the impact of debt servicing on economic growth in Nigeria covering the period 1975-2006. The variables were estimated using ordinary least square method. The results showed that debt payments to Nigerian creditors significantly impacted on the GDP and gross fixed capital formation (GFCF).

[16] studied the impact of public debt on economic growth and investment in Pakistan. The adopted the ARDL technique in estimating the model and the result

revealed that both domestic and external debt had negative effect on per capita GDP and investment, confirming the existence of "debt overhang effect" which crowded out private investment.

[17] investigated the effect of foreign debt service payments on economic growth and development in Nigeria. The study used debt payments to multilateral financial creditors, Paris Club creditors, London Club creditors, promissory note holders and other creditors (non-Paris Club) as variables to statistically determine whether they had a negative effect on GDP and gross fixed capital formation (GFCF) at current market prices. Data covering the period 1981-2004 were applied and estimated with OLS regression method. Findings revealed that debt service payments to the Paris Club creditors and promissory note holders exerted positive and significant influence on GDP and GFCF; debt service payments to London Club creditors and non-Paris Club creditors had a negative and significant effect on GDP and GFCF.

[18] assessed the structure of Kenya's external indebtedness and its implications on economic growth covering the period 1970–1995. The empirical outcomes indicated that external debt accumulation had a negative impact on economic growth and private investment. This confirmed existence of debt overhang problem in Kenya. However, the results also revealed that current debt inflows stimulated private investment. Debt servicing did not appear to affect growth adversely, but had some crowding-out effects on private investment.

[10] attempted to explain the debt overhang hypothesis by assessing the investment experience of 13 heavily indebted economies for the period 1971 to 1991. The countries comprised Algeria, Argentina, Cote d'Ivoire, Egypt, Honduras, Kenya, Mexico, Morocco, Peru, Philippines, Sierra Leone, Venezuela and Zambia. The researcher used two periods: the first ranged from 1975-1983, and the second covered 1984 to 1991. Panel regression method was used to estimate the variables. External debt had a negative impact on investment for the period 1975-1983, but had a positive influence on investment for the period 1984-1991.

[19] assessed whether external borrowing and its major determinants like exchange rate, gross fixed capital formation and inflation rate had supported the growth of Nigeria's economy. The parameters of the model were estimated using the ordinary least square method. The robustness of the result was enhanced using the generalized least square technique. The result showed evidence of positive and significant effect of the explanatory variables, namely external debt, exchange rate and inflation rate on economic growth. However, gross fixed capital formation had a negative effect on

economic growth. The regression estimates for both the ordinary and generalized least squares tests indicated significant positive impact of external debt, exchange rate and inflation rate on economic growth. The results also showed non-significant negative effect of gross fixed capital formation on economic growth.

METHODOLOGY

A study involving a phenomenon that has already taken place typically adopts an *ex-post facto* research design, and this allows researchers the privilege of observing variables over a long period of time and analyzing them for the purpose of making conclusions. Aside from this, *ex-post facto* design protects data derived from the public domain from manipulation. A research work without a research design will go off course. Panel data (characterized by both time series and cross-sectional dimensions) collected from the World Development Indicators for the period 1986 to 2017 covered 15 of the 18 WA countries were employed. We fulfilled the normal distribution requirement by subjecting the variables to descriptive assessment. Checks for stationarity were decided by five test criteria: Levin, Lin & Chu t; Breitung t-stat; Im, Pesaran and Shin W-stat; ADF-Fisher Chi-square, and PP-Fisher Chi-square, while the panel least square was used to work out the direction and magnitude of impact of the variables.

Model Specification

This study was modeled on the work of [7] while conducting research on the relationship between external debt and economic growth in the West African Monetary Zone (WAMZ). The model employed by the researchers is of the form:

$$g_{it} = \alpha_0 + \alpha_1 EXTDEBT_{it} + \alpha_2 EXTDEBT_{it}^2 + \alpha_3 DEBTSEV_{it} + \alpha_4 GROINV_{it} + \alpha_5 TOTGR_{it} + \alpha_6 OPEN_{it} + \alpha_7 POPGR_{it} + \mu_{it} \quad (1)$$

Where, g is growth variable to represent either real GDP growth rate or public investment. $EXTDEBT$ =external debt as a percentage of GDP to capture debt stock; $DEBTSEV$ =total debt service as a percentage of GDP (a flow component of debt and a measure of the stock of external debt); $GROINV$ =domestic investment as percentage of GDP to capture the rates of growth in capital as a factor input for production process; $TOTGR$ =terms of trade measured as the ratio of an index of a country's export prices to an index of its import prices; $OPEN$ =degree of openness measured as the ratio of the sum of imports and exports to GDP; $POPGR$ =population growth rate in percent, a proxy for rate of growth in labour as a factor input for the production process; α_0 = constant; $\alpha_1 - \alpha_6$ = coefficient of the explanatory variables, and μ =error term.

This study modified the above model for our purpose thus:

$$\ln GFCF_{it} = \alpha_0 + \alpha_1 EXLGNI_{it} + \alpha_2 EXLSPGNI_{it} + \alpha_3 GDSGDP_{it} + \mu_i - - - - (2)$$

Where, *GFCF* is gross fixed capital formation; *EXLGNI*=external loan (measured relative to gross national income); *EXLSPGNI*=external loan service payments (measured relative to gross national income); *GDSGDP*=gross domestic savings (relative

to GDP); $\ln$ =log of the independent variables to reduce them to common base; *i* and *t* denote country specific and time respectively, and μ =error term.

RESULTS AND ANALYSIS

Descriptive Statistics

Descriptive statistics is often used to decide how well a data set is modeled and normally distributed. Table 1 indicates thus:

Table 1: Descriptive Statistics of the Panel Data Series

	GFCF (US\$m)	EXLGNI (%)	EXLSPGNI (%)	GDSGDP (%)
Mean	3.99E+09	103.5951	3.454776	7.900024
Median	6.66E+08	66.27429	2.371614	8.370088
Maximum	8.57E+10	1380.767	59.67140	68.80762
Minimum	-2.1E+07	4.130462	0.101269	-141.974
Std. Dev.	1.16E+10	148.2197	4.588108	20.20243
Skewness	4.522716	4.892354	7.145517	-3.18275
Kurtosis	24.30406	32.12871	78.71804	23.45714
Jarque-Bera	9865.494	18609.05	115285.6	8491.762
Probability	0	0	0	0
Sum	1.76E+12	49000.47	1609.926	3507.611
Sum Sq. Dev.	5.93E+22	10369410	9788.591	180805.2
Observations	442	473	466	444

Source: Authors' 2020

Table 1 presents the descriptive analysis of the series, and gives some perceptiveness into the statistical disposition of the variables. For instance, on the average, gross fixed capital formation (GFCF) and external loan relative to gross national income (EXLGNI) was US\$3.99 million and 103.59% respectively, whereas the mean value of external loan service payment relative to gross national income (EXLSPGNI) and gross domestic saving relative to

GDP was 3.45% and 7.9% respectively between 1986 and 2017. Furthermore, all the four indicators peaked at US\$8.57 million, 1380.77%, 59.67% and 68.81% respectively between 1986 and 2017.

Unit Root Test

Estimating a model lacking stationarity will bring forth spurious regression outcomes. To avoid such anomaly, five unit root (stationarity) test criteria were applied as shown in Table 2:

Table 2: Panel Unit Root Test

Variable	Levin, Lin & Chu t	Breitung t-stat	Im, Pesaran & Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square	Order of Integration
lnGFCF	-3.22986*	-6.61957*	-9.58132*	137.068*	478.163*	I(1)
EXLGNI	-6.91885*	-5.48599*	-7.16073*	105.291*	430.357*	I(1)
EXLSPGNI	-10.7623*	-5.01436*	-12.4209*	183.635*	1397.94*	I(1)
GDSGDP	-4.17303*	-5.48177*	-8.01080*	144.202*	1084.26*	I(1)

Source: Authors' 2020

***Significant at 1% and 5%

Given the certainty of the unit root test results, all the panel series having achieved uniform orders of

integration became stationary after first differencing; hence do not have unit root. We therefore employ panel least square approach to regression.

Panel Regression Result

Table 3 presents the panel regression results:

Table 3: Results of Panel Regression

Variable	Dependent Variable: InGFCF	
	Fixed Effect Estimator [Coefficient] (p-value)	Random Effect Estimator [Coefficient] (p-value)
EXLGNI	[-0.001069] (0.0000)*	[-0.001080] (0.0000)*
EXLSPGNI	[-0.018150] (0.0000)*	[-0.017845] (0.0000)*
GDSGDP	[4.13E-05] (0.9739)	[0.000316] (0.7997)
Intercept	[9.030451] (0.0000)*	[9.025267] (0.0000)*
Prob(Hausman)	0.2161	
R ²	0.825791	0.787364
Adjusted R ²	0.818773	0.751772
DW	1.972357	1.760713
F-statistic	117.6690	33.50843
Prob(F-statistic)	0.000000*	0.000000*

Source: Authors' 2020

* and** Significance at 1% and 5%

$$GFCF = 9.03 - 0.0011EXLGNI - 0.018 EXLSPGNI + 0.00032 GDSGDP$$

Table 3 presents results of the fixed effect and random effect estimators, as well as the pooled least square estimation. However, the Hausman test result suggests that the random effect estimator is the most appropriate model upon which our analyses are based. The results show that external loan has a negative, but significant impact on gross fixed capital formation (GFCF), suggesting that 1% increase in EXLGNI causes 0.11% decrease in GFCF. Moreover, EXLSP has a negative, but significant influence on GFCF indicating that 1% rise in EXLSP leads to about 1.8% drop in GFCF. However, GDSGDP has a positive and significant impact on GFCF, where a 1% increase in GDS resulted in 0.03% increases in GFCF.

The R² shows that about 79% of the variations in the dependent variable are explained by changes in the regressors. The F-value (33.5), with a probability value $0.000000 < 0.05$ entails that the regressors are jointly significant in explaining the dependent variable, GFCF. Durbin Watson statistics (DW) approximates 2.0 shows there are no signs of serial correlation.

Country-Specific Regression Results

Table 4 presents the cross-sectional regression results on country-by-country basis:

The outcome of individual country relative effect of external capital financing on infrastructural development reveals differing figures for each of the component country, which form basis for comparison as can be observed in Table 4. Positive and negative effects were indicated with diverse magnitudes or degrees of causal effects using the coefficients.

Table 4: A country-specific research on external capital versus Infrastructural development in West Africa

Cross-Section	Hypothesis
	Coefficient
1 Benin	-0.108777
2 Burkina Faso	0.013048
3 Cape Verde	-0.092812
4 Cote d'Ivoire	0.502591
5 The Gambia	-0.905602
6 Ghana	0.500017
7 Guinea	0.05008
8 Guinea-Bissau	-0.929837
9 Liberia	0.111128
10 Mali	0.054292
11 Niger	-0.196566
12 Nigeria	1.623784
13 Senegal	0.387633
14 Sierra Leone	-0.708213
15 Togo	-0.35498

Source: Authors' 2020

DISCUSSION OF RESULTS

The empirical outcome of our major explanatory variable (external loan) conforms to [7] who assessed the relationship between external debt and economic growth in West African Monetary Zone (WAMZ) employing descriptive trend analysis and panel econometric method to estimate the variables. The Hausman test was used to figure out suitability of the

random effect model in the estimation process. The finding affirmed the debt overhang theory where accumulation of external debt beyond a certain threshold negatively affected economic growth over the sample period. The finding also affirmed that rising debt service linked to high levels of external debt stock constrained limited resources (revenue) from being deployed to productive public investments that could accelerate economic growth. The major sub-regional result also upholds [10] who attempted to explain the debt overhang hypothesis with an empirical assessment of the investment experience of 13 heavily indebted economies for the period, 1971 to 1991. The countries included *Algeria, Argentina, Cote d'Ivoire, Egypt, Honduras, Kenya, Mexico, Morocco, Peru, Philippines, Sierra Leone, Venezuela and Zambia*. The researcher used two periods: first period ranged from 1975-1983, and the second period covered 1984-1991. Panel regression method was employed to estimate the panel data. External debt exerted negative effect on investment. However, [11] who examined effect of public debt on private investment in Tanzania from 1970-2016 using ARDL technique established that combined effects of external and domestic debt on private investment were statistically significant.

Contrary to the sub-regional outcome, the country-specific results show that external debt exerted positive influence on infrastructural development in ***Burkina Faso, Cote d'Ivoire, Ghana, Guinea, Liberia, Mali, Nigeria*** and ***Senegal***, but negative influence on infrastructural development in ***Benin, Cape Verde, the Gambia, Guinea Bissau, Niger, Sierra Leone and Togo*** over the sample period. Interestingly, the country-specific result in respect of Nigeria where external debt had a positive effect on public investment contradicted the study of [8] that used OLS to find that external debt exerted a negative and significant influence on public investment in Nigeria for the period 1996-2018. Similarly, the study of [9] employed ARDL model to discover that external debt crowded out public investment in Nigeria over the period 1981-2016.

IMPLICATIONS, CONCLUSION AND RECOMMENDATIONS

This work deployed some relevant statistical techniques in an attempt to ascertain the impact of external capital (measured by external loans) on infrastructural development (measured by gross fixed capital formation) of West Africa comprising 15 out of 18 countries. Panel least square was used to estimate and analyze a modified model. The result indicated that although external capital had a negative impact on infrastructural development, the impact was significant. In the same vein, external loans service payment (EXLSP) exerted a negative, but significant influence on gross fixed capital formation. Conversely, gross domestic saving showed a positive and significant

impact on infrastructural development. This implies that spending in infrastructures and social services (infrastructural development) like power, iron and steel plants, public transportation (e.g. rail system), healthcare and educational systems required to encourage private sector activity and sustain high level of growth for economic transformation could have dropped due to decline in revenue streams and difficulty in mobilizing external resources.

From the *a priori* standpoint, external capital is believed to drive infrastructural development, but this study has proved otherwise because external capital failed to positively impact on infrastructural development in WA between 1986 and 2017. This study encourages governments of WA countries to (1) minimize cost of governance as an antidote to post covid-19 Africa; (2) refrain from external debt as much as possible, but since debt is inescapable, it should be used for productive investments or growth-enhancing investments rather than maintaining their spending plans, and (3) Prudent application of borrowed funds should form part of fiscal responsibility of African leaders in order to concretize critical investment decisions.

This paper juxtaposed outcomes of the sub-regional study (as a unit) and the country-specific outcomes of 15 out of the 18 WA countries employing modified panel regression model to analyze the research objective.

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