

An In-depth Analysis of Government Debt to GDP of the three Selected African Countries and its effects on their Economy: Nigeria, South Africa, and Ghana

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Abstract

This study investigated the effects of Government debt to GDP of the 3 selected African Countries and the negativity on their economy using data from 2012-2020. The provable/empirical results showed that debt effects enhanced growth only on a short term and hindered growth in the long term. Debt servicing has negative impacts on the borrower country's economy because It takes large benefit from the domestic economy to transfer to the foreign economy. Therefore, the country foregoes some spectacular multiplier accelerator effects. Debt servicing, including interest payments and repayments, may also be a real leakage from an indebted country. The study suggested that government should channel the borrowed funds on both infrastructural development and the productive base of the economy, that will improve long-term economic growth, expand the revenue base, and strengthen the capacity to repay outstanding debts when due. Government should put in place debt management mechanism that will prevent government from default.

Key words Government debt, GDP, Debt management mechanism



Introduction

The World economy today is interwoven which made it impossible for any country to operate in isolation. All countries in the World are integrated in one way or the other to the global economic system. Based on this fact, the three selected African countries under investigation need external sources of income for their developmental projects and to keep their government functioning properly. Countries internal resources are never enough for any meaningful projects, as a result, external resources are sourced for to complement the internal revenue. The motive behind external borrowing is because countries especially the developing ones lack sufficient internal financial resources and this calls for the need for foreign aid (Sulaiman, L.A, Azeez, B.A 2012). According to Pattillo et al, 2002; Safdari and Mehrizi, 2011, it is also expected that developing countries, facing a scarcity of capital, will seek external borrowings to supplement domestic saving.

Debt is something, usually money, borrowed by one party from another. Debt is used by many countries, corporations, and individuals to make large purchases that they could not afford under normal circumstances. A debt arrangement gives the borrowing party permission to borrow money under the condition that it is to be paid back later, usually with interest.

Hameed, Ashraf, and Chaudhary (2008) stated that external borrowing is ought to accelerate economic growth especially when domestic financial resources are inadequate and need to supplement with funds from abroad.

According to Professor Chukwuma Soludo (2003) he opined countries borrow for two broad reasons; macroeconomic reasons to either finance higher investment or higher consumption and to circumvent hard budget constraints. This implies that Government borrows to boost economic growth and alleviate poverty. He argued that when debt reaches a certain level, it begins to have adverse effect, debt servicing becomes a huge burden and countries find themselves on the wrong side of the debt-Laffer curve, with debt crowding out investment and growth.

Federal government debt-to-GDP ratio **measures the gross debt of the Federal government as a percentage of GDP**. It is a key indicator for the sustainability of government finance.

Is government debt same as public debt?

The debt owed by **Central/national governments** is usually referred to as the national debt and is thus distinguished from the public debt of state and local government bodies. In the United States, bonds issued by the states and local governments are known as municipals.

The national debt can only be reduced through five mechanisms: increased taxation, reduced spending, debt restructuring, [monetization](#) of the debt, or outright default. The federal budget process directly deals with taxation and spending levels and can create recommendations for restructuring or possible default.

Classification of Debt

Corporate and Individual debt can be classified into four main categories:

Secured Debt= Secured debt is collateralized debt. creditors (Debtors) usually require the collateral to be property or assets with a large enough value to cover the amount of the debt. Examples of collateral include vehicles, houses, boats, securities, and investments. These items are pledged as security and the agreement is created with a lien. Upon default, the collateral may be sold or liquidated, with the proceeds used to repay the loan. Like most classes of debt, secured debt often requires a vetting process to verify the creditworthiness of the borrower and their ability to pay. In addition to the standard review of income and employment status, the ability to pay may include verifying the collateral and assessing its value.

Unsecured Debt= Unsecured debt is debt that does not require collateral as security. The creditworthiness and the debtor's ability to repay are reviewed before consideration is given. Since no collateral instrument is issued, the debtor's credit profile is the primary factor used in determining whether to approve or deny lending. Examples of unsecured debt include credit cards, automobile loans, and student loans. How much is loaned is often based on the debtor's financial position, including how much they earn, how much liquid cash is available, and their employment status.

Revolving debt= Revolving debt is a line of credit or an amount that a borrower can continuously borrow from. In other words, the borrower may use funds up to a certain amount, pay it back, and borrow up to that amount again. The most common form of revolving debt is credit card debt. The card issuer initiates the agreement by offering a line of credit to the borrower. If the borrower fulfills their obligations, the line of credit is available for as long as the account is active. With a favourable repayment history, the amount of revolving debt may increase.

Mortgaged debt= A mortgage is a debt issued to purchase real estate, such as a house or condo. It is a form of secured debt as the subject real estate is used as collateral against the loan. However, mortgages are so unique that they deserve their own debt classification. There are different types of mortgage loans, including [Federal Housing Administration](#) (FHA), conventional, rural development, and [adjustable-rate mortgages](#) (ARMs), to name a few. In general, lenders use a baseline credit score for approval, and those minimum requirements may vary according to the type of mortgage. Mortgages are most likely the largest debt, apart from student loans, that consumers will ever owe. Mortgages are usually amortized over long periods, such as 15 or 30 years.

Corporations issue debt in the form of bonds to raise capital. In addition to loans and credit card debt, companies that need to borrow funds have other debt options. Bonds and [commercial paper](#) are common types of corporate debt that are not available to individuals.

Background of Study

The three selected African countries have been borrowing money over the years to finance their developmental plans, such loans are obtained from multilateral institutions such as International Monetary Fund, European Union, World bank, African developmental bank etc and bilateral around the globe such as China, Russia, Japan, Germany, USA et al.

Reinhart and Rogoff (2010) provided long historical data series for the analysis of public-debt-to-GDP ratios and economic growth. Their finding is that public-debt-to-GDP ratios above 90% are associated with markedly lower economic growth rates. While several leading policymakers in the US and Europe directly referred to Reinhart and Rogoff (2010) as a threshold for immediate fiscal consolidation measures to reign in public debt (e.g. Konzelmann 2014).

Asley (2002) opined that high level of external debt in developing country negatively impact their trade capacities and performance.

The Central Bank (CBN) is the bankers bank and financial adviser to the federal government and as such, it is charged with the responsibility for managing the public debt. It usually guides the federal government on the needs for external borrowing and its effects on the economy.

The most interesting point here is that loans enhanced short-term growth and long-term negative effects on their economy. The conditions usually attached to most of these loans are so unfavourable that the borrowers might end up having negative growth at the long run. A swift example is the current condition given to Nigeria by IMF, which urged Nigeria government to devalue her currency and stop subsidizing PMS (petroleum). The key question here is that the end of subsidy will trigger off hyper- inflation which will bring about an untold hardship to the masses. Similar conditions are offered to both south Africa and Ghana whenever they seek loans. These types of conditions given to emerging countries made it almost impossible for them to achieve the aims and objectives of the loans.

Chowdhury K (1994) argued that external debt burden leads to bad management in highly indebted countries such as exchange rate mismanagement. The expectation of currency devaluation leads to speculative capital flight. Devaluation also causes the currency cost of debt service obligations, deteriorates budget deficit, and affect money supply and inflation.

Effects of High debt to GDP on the countries under Investigation

The higher the debt-to-GDP ratio, the less likely the country will pay back its debt and the higher its risk of default, which could cause a financial panic in the domestic and international markets.

A high debt-to-GDP ratio is undesirable for a country, as a higher ratio indicates a higher risk of default. In a study conducted by the World Bank, a ratio that exceeds 77% for an extended period may result in an adverse impact on economic growth.

Debt-to-GDP measures the financial leverage of an economy. One of the Euro convergence criteria was that government debt-to-GDP should not be more than 60%.

Debt decreases a government ability to invest in producing and marketing exports, building infrastructure, and establishing a skilled labour force. Muhtar (2004) also stated that, the servicing of these debts has direct negative impact on economic development. He says “debt services encroached on resources needed for socio economic development and poverty reduction. It also contributed to negative net resources flow”.

According to Hla and Krueger (2009) economic development is the increase in the standard of living in a nation's population with sustained growth from a simple, low-income economy to a modern, high-income economy. Also, if the local quality of life could be improved, economic development would be enhanced. Its scope includes the process and policies by which a nation improves the economic, political, and social well-being of its people (O'Sullivan & Steven; 2003). The nature of the relationship between public external borrowings and economic performance of nations has over the years been a subject of academic debate.

Consequences of High Debt to Ghana, Nigeria, and South Africa

The four main consequences are:

- Lower national savings and income.
- Higher interest payments, leading to large tax hikes and spending cuts.
- Decreased ability to respond to problems.
- Greater risk of a fiscal crisis

Research methodology

To get an overview of the volume of debt to GDP of the three selected African countries, and its effects on their economy, we used secondary data for an in-depth and comprehensive analysis. This is quite imperative for us to know the effects of debt to GDP. We used data from 2012 -2020.

South Africa Government Debt to GDP from 2012-2020

South African debt to GDP have been increasing over the years under investigation, and the multiplier effects are enormous on the economy.

How much does SA owe China? South Africa owes an estimated *four percent of its annual gross domestic product* to China (2022). The country received multiple tranches of Chinese loans, some of which have raised concerns about opaque conditions and alleged links to corruption.

How much *does South Africa owe World Bank?*

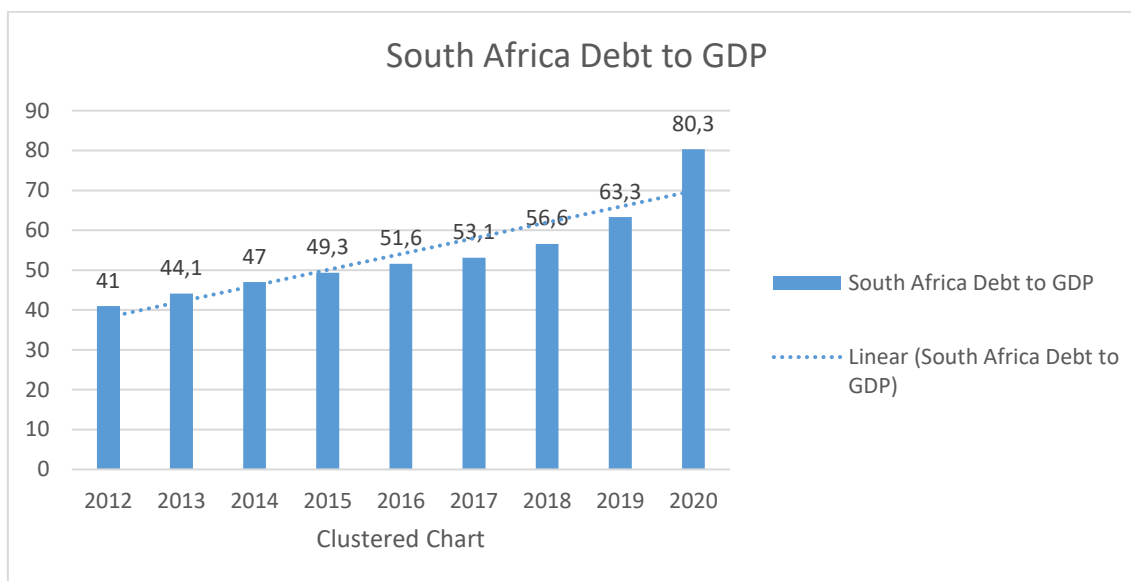
The country's \$4.3 billion (R70-billion) loan from the IMF is payable over a period of five years at an interest rate of 1.1%

How much does South Africa owe in 2021?

In the latest reports according to SA debt management, South Africa National Government Debt reached **275.2 USD bn** in Oct 2021. The country's Nominal GDP reached 85.8 USD bn in Dec 2020.

Table 1. Showing South African Debt to GDP from 2012-2020

2012	2013	2014	2015	2016	2017	2018	2019	2020
41	44.1	47	49.3	51.6	53.1	56.6	63.3	80.3



Generally, Government debt as a percent of GDP is used by investors to measure a country's ability to make future payments on its debt, thus affecting the country borrowing costs and government bond yields.

Nigeria Government Debt to GDP from 2012-2020

Nigeria government debt to GDP continue to increase throughout the period under investigation, except in 2014. This has posed a tremendous challenge to her economic growth and development.

The higher the debt-to-GDP ratio, *the less likely the country will pay back its debt and the higher its risk of default*, which could cause a financial panic in the domestic and international markets. Nigeria's debt to equity ratio in 2018 was 27.7%, in 2019 it increased to 29.1% and for 2020, 35%.

Effect of debt on Nigeria economic growth

This study investigated the effect of government debt on Nigeria's economic growth using annual data from 2012 to 2020 and the Autoregressive Distributed Lag technique. The empirical results shows that external debt *constituted an impediment to long-term growth* while its short-term effect was growth-enhancing.

Major Nigeria Creditors in Focus

As of March 31, 2020, the Total Borrowing by Nigeria from China was USD3. 121 billion (₦1,126.68 trillion at USD/₦361). This amount represents only **3.94%** of Nigeria's Total Public Debt of USD79. 303 billion (₦28,628.49 billion at USD/₦361) as of March 31, 2020.

As of December 31, 2019, Nigeria owed \$3.18bn to the Exim Bank of China, \$76.13m to France's Agence Francaise Development, \$361.75m to Japan International Cooperation Agency, \$32.14m to the Exim Bank of India, and **\$202.27m** to Germany's Kreditanstalt Fur Wiederaufbua.

Nigeria External and Internal Debt Analysis in 2020/2021

Nigeria's external debt rose to **\$37.96 billion** as of Q3 2021, moving from \$33.47 billion recorded in the previous quarter. The increase in the country's external debt was driven by the 4 billion Eurobond raised from the international debt market to boost the country's external reserve above \$40 billion.

Nigeria spent a sum of \$520.78 million on external debt servicing in the third quarter of 2021, rising by 74.2% compared to \$298.9 million recorded in the preceding quarter (Q2 2021). This is contained in the quarterly debt report, released by the Debt Management Office (DMO).

A look at the data shows that a sum of \$1.82 billion has been used to service external debts between January and September 2021. This is 43.9% higher than the \$1.27 billion spent in the corresponding period of 2020.

On the other hand, domestic debt servicing rose significantly by 150.5% from N322.75 billion recorded in Q2 2021 to N808.49 billion in Q3 2021. This takes the year-to-date domestic debt service to N1.74 trillion from N1.53 trillion recorded in the same period of 2020.

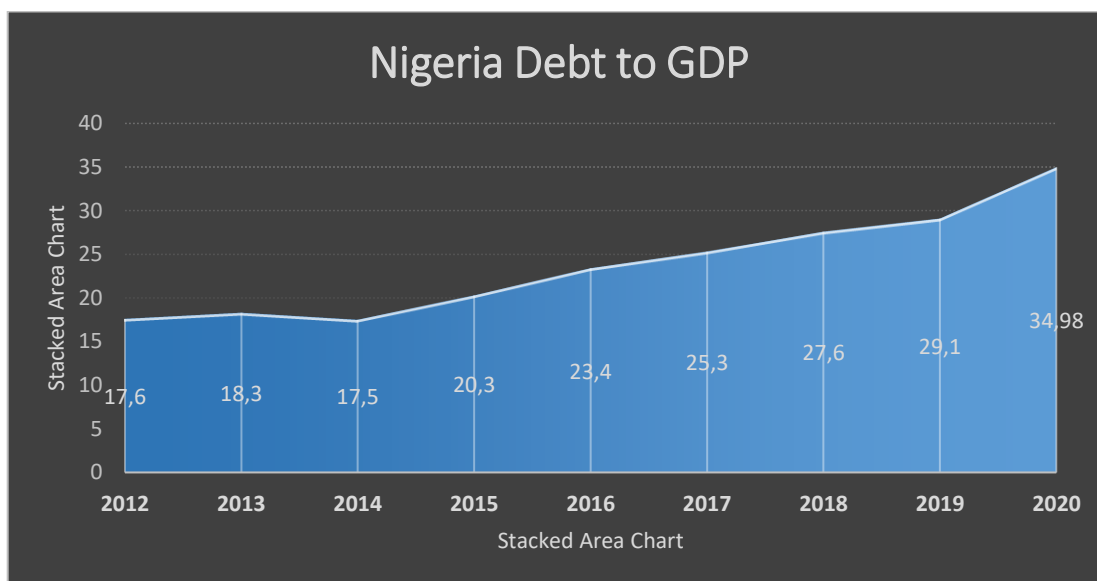
The increase in debt service comes on the back of the significant jump in the country's debt profile. Nigeria's external debt rose to \$37.96 billion as of Q3 2021, moving from \$33.47 billion recorded in the previous quarter.

Recall that Nigeria raised a sum of \$4 billion in Eurobond in September, a capital raise which was dubbed one of the biggest financial trades on the African continent after the order book peaked at \$12.2 billion, which enabled the federal government to raise an additional \$1 billion more than the intended \$3 billion capital raise.

On the other hand, domestic debts also recorded an uptick as federal government domestic debt stock rose to \$44.44 billion, while state domestic debts increased to \$10.23 billion.

Table 2. Showing Nigeria debt to GDP from 2012-2020.

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Indicator	17.6	18.3	17.5	20.3	23.4	25.3	27.6	29.10	34.98



Stacked area chart showing Nigeria Debt to GDP from 2012-2020

Ghana Government Debt to GDP from 2012-2020

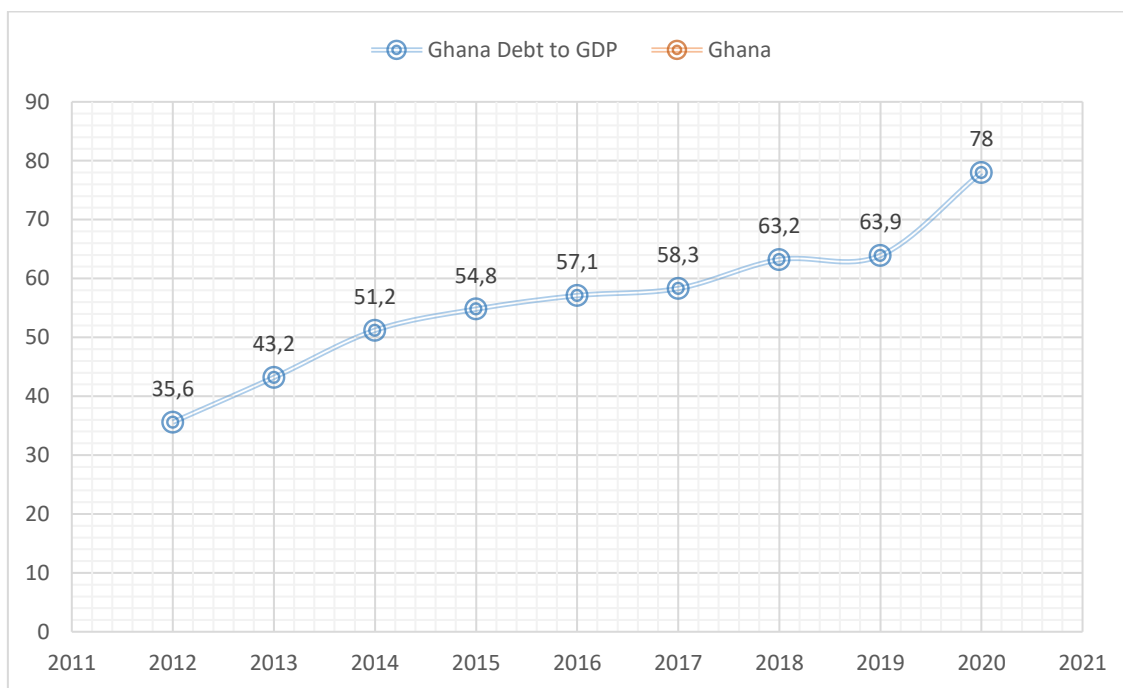
During the period under investigation, Ghanaian National debt to GDP continued to increase unabated, and these has posed gigantic challenges to her economic development. The cost of her debt servicing continued to rise throughout the period.

How much money is Ghana owing China? Ghana - Its debt to China sits at \$3.5 billion (about Sh350 billion).

According to the data from the Bank of Ghana, the domestic debt went up to **¢178.1 billion** in September 2021, up from ¢173.9 billion recorded in July 2021. This is equivalent to 40.5% of GDP. For the external debt, it fell by \$100m in August to \$27.9 billion in September 2021, equivalent to 37.2% of GDP.

Table 3. Showing Ghana Debt to GDP from 2012-2020

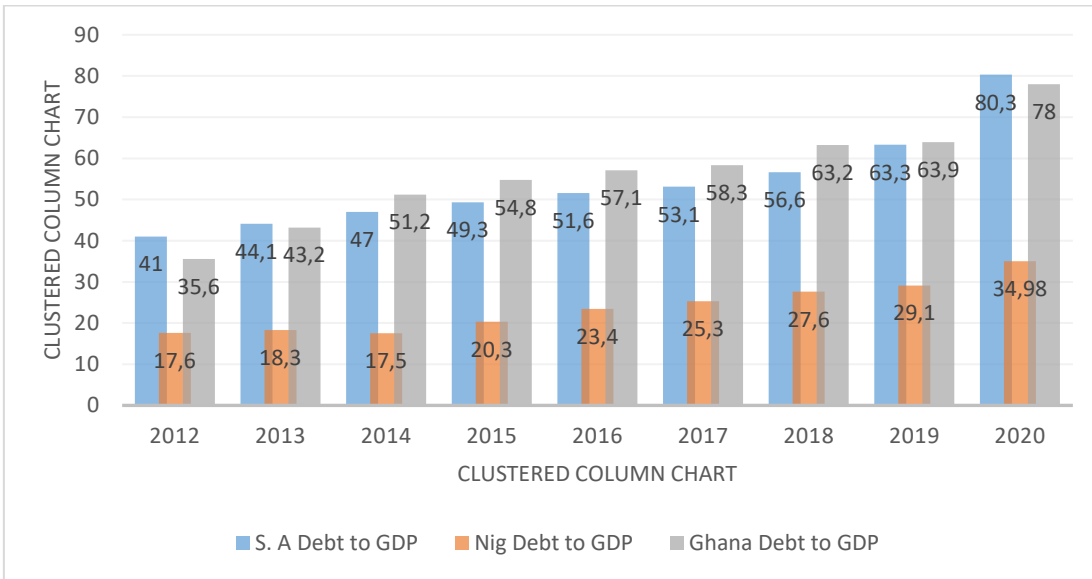
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Indicator	35.6	43.2	51.2	54.8	57.1	58.3	63.2	63.9	78



Scattered Chart showing Ghanaian Debt to GDP from 2012-2020

Table 4. showing government debt to GDP of South Africa, Nigeria, and Ghana from 2012-2020

Country	Indicator	2012	2013	2014	2015	2016	2017	2018	2019	2020
S. A	Debt to GDP	41	44.1	47	49.3	51.6	53.1	56.6	63.3	80.3
Nig	Debt to GDP	17.6	18.3	17.5	20.3	23.4	25.3	27.6	29.1	34.98
Ghana	Debt to GDP	35.6	43.2	51.2	54.8	57.1	58.3	63.2	63.9	78



Results and analysis

Results of the findings were thoroughly analysed with the use of graphs and tables. These help us to precisely know the effects of Government debt to GDP of the three selected African Countries economy.

During the period under investigation, South African Government debt to GDP continued to increase unabated, and this has serious effect on her economy. For example, the value of Rand continued to depreciate throughout the period.

During the period under investigation, Ghanaian Government debt to GDP continued to increase throughout the period, the value of CEDI continued to depreciate, which in turn leads to high cost of both export and import. Inflation has become a huge problem to the masses, which resulted to a low standard of living, low savings, and low consumptions.

During the period under investigation, Nigeria Government debt to GDP continued to increase throughout the 9year period, except in 2014, when her debt to GDP decreased by 0.8%. Nigeria Government debt to GDP continued to affect her economic growth at the long, for example her currency has been devalued three times in the last two years. Her borrowing cost continued to increase. Throughout the period, Nigeria Federal reserves continued to decrease, because of high demand for foreign currencies for external trade.

Conclusion and recommendations

Government debt to GDP is a double edge sword. Debt is used by government to finance developmental projects, which ordinarily cannot be financed through internal generated revenue. As a result, SA, Nigeria, and Ghana embraced the opportunities to carry out their developmental projects.

On the other hand, Government debt to GDP incurred by the three selected African countries during the period under investigation, called for an In-depth analysis of its effect on their

economy. The cost of borrowing on the selected countries continued to increase and the value of their currencies continued to depreciate. The high cost of their debt servicing has grave effects on their economy, because a huge chunk of their revenue is used to pay their lenders.

The fact that, the three countries Government debt to GDP continued to grow year-in-year-out, it is already a bad signal to their economy, because no country in the World can attain reasonable development through such unabated borrowing culture.

Recommendations:

In 2020, South Africa and Ghana Government-debt-to-GDP ratios are above 70%, these called for an immediate fiscal consolidation measure to reign in public debt, such as increase in interest rate, increase in tax rate, lowering of Government expenditure etc.

We also recommend that the three selected countries under investigation should set up debt payment mechanism that will enhance smooth debt payment and debt servicing.

We recommend that the three selected African countries ought to do more in fighting corruptions by setting up anti-corruption agencies that will monitor how loans are used. Debt is always a problem when the loans collected are not used for their purposes. We also recommend that before loans are secured, the masses should be notified through their representatives at the national assembly and also at the state assembly for their inputs.

References

- Ajayi, S.I. and Khan, M.S. (2000). External Debt and Capital Flight in Sub-Saharan Africa. IMF: International Monetary Fund publication
- Angahar, J.S., Ogwuche, I.P., Olare, V.D(2015). An empirical analysis of External borrowing on economic performance of Nigeria. Munich Personal RePEc Archive
- Ashinze, J.O and Onwioduokit, E.A (1996). Economic growth and foreign debt: A case study of Nigeria. CBN economic and financial review,34.
- Asley (2002). An empirical analysis of debt performance on economic growth, International journal of business and social science, Vol (40) no.6
- Heimberger, P. (2021). Do Higher Public Debt levels reduce Economic Growth? Vienna Institute for International Economic studies
- Oyekanmi, S. (2021). Nigeria's external debt servicing gulps \$520.78M In Q3 2021, jumps by 74%.
- Pattillo C., Ricci L. and Poirson H. (2002): "External Debt and Growth" IMF Working paper International Monetary Fund Washington DC
- Teles, V., Mussolini, C. (2014). Public debt and the limits of fiscal policy to Increase economic growth. European economic review.
- Woo, J., Kumar, M. (2015). Public Debt and Growth. Econpapers.repec.org
- Yang, L., Su, J. (2018). Debt and Growth: is there a constant tipping point? Journal of international money and finance, 87 (C), 133-143
- The World bank (2022) International debt statistics. <https://datatopics.worldbank.org/datatopics/>
- Worldbank.org/debt/ids/country/NGA
- South African Reserve Bank. <https://www.resbank.co.za>
- Bank of Ghana. <https://www.bog.gov.gh>
- <https://www.macrotrends.net/countries/NGA/nigeria/debt-gdp-ratio>
- <https://tradingeconomics.com/south-africa/government-debt-gdp>
- <https://tradingeconomics.com/ghana/government-debt-to-gdp>
- <https://allafrica.com>
- <https://www.afdb.org/sites/default>