Causality among Oil Revenue, Non-Oil Revenue, Fiscal Risk Factors and Budget Execution Phase in Relation to Debt Overhang and Crowding-Out Theories: Contending Gap Issues

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Abstract

We reviewed literatures on the complex causality among oil revenue, non-oil revenue, fiscal risk factors and budget execution phase in relation to debt overhang and crowding-out theory. The majority of papers surveyed study on investigated the long-run and short-run relationship between fluctuations of oil price ; direction of causality between total revenue and total government spending ; the dynamics of the tax revenue and expenditure nexus, explored the impact of oil prices volatility on the key factors of the government budget, analyse the relationship between public expenditure and debt —little research in the area of the impact of oil price fluctuations on key macroeconomics variables. The evidence provided by the empirical literature is that there are indeed heterogeneous responses to position on complex causality among oil revenue, non-oil revenue, fiscal risk factors and budget execution phase in relation to debt overhang and crowding-out theory. It is detected that most study reviewed did not disintegrated relevant revenue: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax(PPT)); non-oil revenue (company income tax (CIT), value added tax (VAT), personal income tax) and budget risk factors: oil price volatility (OPV)(OPEC Spot OPV, Brent OPV, West Texas Intermediate OPV), public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure). It is recommended that research effort should be made in answering the following research questions: what is the effect of oil revenue on budget implementation (public expenditure: capital expenditure and recurrent expenditure)? How non-oil tax revenue is correlates with budget implementation (public expenditure: capital expenditure and recurrent

expenditure)? Of what effect is oil price volatility have on budget implementation (public expenditure: capital expenditure and recurrent expenditure)? What is the influence of public debt on budget implementation (public expenditure: capital expenditure and recurrent expenditure)? How does debt servicing statistically affect budget implementation (public expenditure: capital expenditure and recurrent expenditure)? Review of empirical studies revealed the validity of debt overhang problems and crowding-out distortions in developing countries. The evidence of debt overhang is strong and we cannot rule out that huge debt burden is irrelevant in line with (Krugman,1988). It is also recommended that the underpinning theories should be debt overhang and crowding-out theory using oil subsidy payments and other social expenditures as controlling variables.

Keywords: *Oil revenue, non-oil revenue, fiscal risk factors, budget execution, debt overhang and crowding-out theory.*

Jel Classification: E60, H63

1.0 Introduction

Full budget execution depends on major factors such as revenue generation, debt risk management, crude oil price shocks and other budget target uncertainties according to budget experts. According to Ministry of Finance, the significantly higher recurrent component of the budget continues to drag the nation's economic growth, resulting in poor budget execution. The Key budget numbers revealed on the proposed 2023 fiscal years are not encouraging and may be unrealistic with the following proposed figures (₦20.51trillion budget; Total collectible revenue ₦16.87trillion; Oil revenue ₦1.92trillion;—₦5.35trillion capital expenditure; ₦6.31trillion; ₦8.80trillion new borrowings; ₦10.78trillion; Oil price benchmark is $70 and ₦1.7trillion Oil Subsidy).

Oil revenue remains the major fiscal constraints of Nigeria. This year, Nigeria government revenue of about ₦9.96 trillion largely from oil sales based on a benchmark of 1.8billion barrels (BBL) per day at revised expectation of US$73/BBL. Brent Crude Oil Price is the leading global price benchmark for Atlantic basin crude oils for Europe Sales. It is used to set the price of two-thirds of the world's international traded crude oil supplies. It is one of the two main benchmark prices for purchases of oil worldwide, the others being West Texas intermediate (WTI) for America crude sales and OPEC spot prices for Asia and African Sales. However, the actual recurrent expenditure as at April 2022 was ₦1.94trillion was for debt service and ₦1.26tillion for personnel cost. Also subsidies has overburdened government finances. However, oil revenue has been a major crisis.

Subsidy payment has continued to increase annually. In 2021, the country spent ₦1.57trillion on subsidies. Nigeria is spending about 118% of its revenue on debt servicing meaning it is also borrowing to service debt at interest rate. Also foreign debt servicing is denominated in foreign exchange rate in Dollars and pound sterling from Paris Club and London Club. Fosu (2010) posited that the lack of commensurate investments with the level of borrowing in Nigeria could

be traced to several sustainable subsidies that dominate government's spending. He concluded that it is good to borrow for investments rather than consumption expenditures. In the same vein, Aregbeyen and Akpan, 2013 described the country's rising debt profile without significant impact as heart rendering and disastrous. The proposed 2023 budget, public spending on debt servicing alone will gulp as much as ₦6.31 trillion.

Why is Nigeria budget execution poor? The Federal Government of Nigeria reported a record-breaking fiscal deficit of ₦7.3trillion in 2021 as actual expenditure of ₦11.69trillion vastly exceeded its 2021 generated revenues of N4.39trillion. Nigeria is performing poorly in term of government revenues because it struggled to generate significant revenue from oil, one of its mainstays. Oil revenue contributed ₦970.billion to the total revenue generated within the period. Oil revenue and oil price play key roles in the world economy and the impact of crude oil price fluctuation has always been a matter of concern. Predicting the oil price is one of the hardest tasks for the financial analysts. Do Nigeria face poor execution of recurrent expenditure as a result of revenue or fiscal crisis where our revenue is way smaller than our expenditure? There is need explore constraints being faced on recurrent expenditure budget execution in the area of oil revenue generation and exchange rate and interest rate management by Central bank of Nigeria. According to Ministry of Finance, the significantly higher recurrent component of the budget continues to drag the nation's economic growth, resulting in poor budget implementation.

Also, other budget risk factors like foreign exchange risk and interest rate risk may also have effect on the constrained fiscal space currently been faced in Nigeria budget execution. Hence, the question, Nigerian recurrent expenditure deficit position. An oil revenue or budget risk problem.

2.0 Literature Review

2.1 Theoretical Review

2.11 Crowding-out effect theory

The weight of debt service on the government decreases public expenditure, including expenditure on social investments such as education and healthcare, which are vital for economic growth. Furthermore, weighty debt obligation suggests that the government short-term revenue must be used to service the debt, thereby crowding out public investment into the economy (Serieux & Yiagadeesen, 2001). Reduction in public investment can lead to a decrease in private investment, since some private investments and public investments are complementary (Diaz-Alejandro, 1981; Taylor, 1983). Dependence on external loan acquisition is not only thought wise on the grounds that extreme domestic borrowing results in financial precariousness and crowdingout the private sector (Panizza, Sturzenegger & Zettelmeyer, 2010), but also, as contended by Todaro and Smith (2006), it is necessary for unindustrialized nations in their initial phases of development to borrow externally, since domestic savings at that stage could be insufficient for the achievement of the needed development.

Crowding out effects usually occurs due to excessive real interest charges while the terms of trade of an overly indebted country become worsen while foreign credit markets may no longer

be available. Karagol (2004) identified the decline in investment as being the effect of a decrease in a country's available assets for financing investment and macroeconomics activities. Reduction in nation's capability of maintaining its debt resulting from the crowding out effect; and therefore, as it strives to meet some of its obligations, leaving little capital for domestic investment (Patenio & Augustina, 2007). Clements et al. (2003)) further confirmed the foregoing negative reviews and scenarios and the effects of excessive borrowings were further validated by this and other findings which relates that the adverse effects of foreign borrowing on economic growth can be observed through debt stock and flow of service payments facilities that most probably crowd out public investment. The findings of Taylor (1993) deduced that debt caused liquidity restraints is a resultant effect of decline in government expenditure due to the continuous servicing of outstanding debt stocks in excess of what the economy can contain. Karagol (2004) indicated that there is much interest from developing countries in the link between external loan and economic development since debt overhang has an impact on investment and thus economic growth.

2.12 Debt Overhang Theory

Krugman (1988) posits "if there is likelihood that in the future debt will be larger than the country's repayment ability; expected debt service costs will discourage further domestic and foreign investment because the expected rate of return from the productive investment projects will be very low to support the economy as the significant portion of any subsequent economic progress will accrue to the creditor country". The theory portrays the fact that a counter-productive effect of debt instruments will severely decrease investment prospects as well as low level of output in the economy (Fasoye, 2018).

Debt overhang is a situation in which the illiquidity effect, the disincentive effect, or both effects are strong enough to discourage growth in the absence of concessions by creditors." It is the inability of a country to get her debts serviced as at when due. In this respect government fails to discharge her fiscal obligations (Fasoye, 2018).

The debt overhang hypothesis implies that external debt stock and debt servicing obligation is capable of stimulating or hampering investment, expenditure and fiscal performance once it exceeds a certain threshold (Claessens & Diwan, 1990; Cohen, 1995; Krugman, 1988; Sachs, 1989; Deshpande,1997). Warner (1991) posits that the investment spending decline in heavily indebted less developed countries has stimulated a large literature examining how external debt problems can cause domestic investment and fiscal realism to decline.

2.2 Empirical review

Saunoris (2013) examined the dynamics of the tax revenue and expenditure nexus using data from United States from 1951 to 2008. The study investigated the dynamics of the intertemporal budget constraint to better understand persistent budget deficits. The direction of causality between tax revenues and expenditures is of primary interest in answering the four hypotheses set forth in the literature: tax-spend, fiscal synchronization, and institutional separation. Overall, the results convey evidence in favour of the tax-spend hypothesis. The dynamics differ, however, in that states with relatively higher debt levels respond slower to fiscal imbalances and rely more on expanding debt levels. These results present a clear illustration of the fiscal adjustment

mechanism and how states adapt under various institutional restraints. It is observed the study did not split the key variables into sub variables as follows: tax revenue (company income tax, value added tax, personal income tax) and public expenditure (capital expenditure and recurrent expenditure).

Fasano and Wang (2002) examined the direction of causality between total revenue and total government spending for Gulf Cooperation Countries (GCC) including Oman, over the period 1980-2000. Using a cointegration and error-correction models, their results show that an increase in revenue causes an increase in government expenditure in the first period for all GCC countries, which means that government expenditure is pro-cyclical to changes in oil revenue. It is detected that study did not break the key variables into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax); independent revenue and non-oil revenue (company income tax, value added tax, personal income tax) and public expenditure (capital expenditure and recurrent expenditure).

Abdulla (2012) examined the relationship between oil revenue and expenditure in Qatar. Annual data for the period from 1980-2011 were used and a time series analysis of the unit root tests, Engle-Granger's Cointegration and Granger Causality were applied. The study found that variables were integrated of order one when Augmented Dickey-Fuller and Phillip Perron unit root tests were employed. The variables were found to be cointegrated. Empirical results found unidirectional causality that runs from government oil revenue to expenditure in support of revenue-spend hypothesis. It is observed that study did not split the government oil revenue and expenditure into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax) and public expenditure (capital expenditure and recurrent expenditure).

Kabaklarli (2016) investigated the empirical relationship between oil revenue and expenditures in Turkey using classic and structural break unit roots, cointegration Bound-Test approach and ARDL method. Change in public sector crude oil revenue have a significant impact on public sector expenditures. This provides the evidence of financial sustainability of expenditure with government revenues which can be supported. It is observed that study did not disintegrate the key variables into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax) and expenditure (capital expenditure and recurrent expenditure).

Lojanica (2015) investigated the links between government revenue and government expenditure in the Republic of Serbia, to indicate the measures that are necessary to reduce the budget deficit in Serbian economy. In the analysis, data from 2003 to 2014 are used. ARDL, Granger causality and VECM are used. The empirical results obtained revealed that there is a cointegration betwwen government revenue (taxation) and government expenditure. There is a unidirectional causality moving from government tax revenue to government expenditure in the long run, the resut is in accordance with tax-spend hypothesis. It is observed that study did not decompose government revenue and government expenditure in the Republic of Serbia into sub variables as

follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax; non-oil revenue (company income tax, value added tax, personal income tax) and government expenditure (capital expenditure and recurrent expenditure).

Baharumshah, Jibrilla, Sirag, Ali and Mulammad (2016) examined the government tax revenue and expenditure relationship in South Africa using Enders and Siklos Threshold adjustment and Granger causality tests using data from 1960 to 2013. The study allows for structural breaks in the unit root and cointegration tests, the results indicated the absence of any asymmetries in both the threshold autoregression and momentum threshold autoregression specifications of the adjustments in the South Africa's budgeting process. The estimated symmetric error correction models provide support for the fiscal synchronization hypothesis of government revenues and expenditures for long run and short run dynamic equilibrium. These findings indicate that the South African fiscal authorities should try to maintain or even improve the control of their fiscal policy instruments to sustain the prudent budgetary process. It is observed that study did not distintegrate the government tax revenue and expenditure into sub variables as follows: non-oil revenue (company income tax, value added tax, personal income tax) and expenditure (capital expenditure and recurrent expenditure).

Rahma, Perera and Tan (2016) explored the impact of oil prices volatility on the key factors of the Sudan's government budget using vector autoregressive model for a sample of quarterly data over the period from 2000: q1 to 2011: q2. The main findings of this study indicate that a decrease in oil prices has a significant impact on indicate also that a change in oil prices does not Granger cause a change in government budget. An asymmetric relationship is found between oil prices and government budget. It is observed that study did not distintegrate the key variables into sub variables as follows: oil price volatility (opec spot price, brent price, west texas intermediate price, public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget implementation (public expenditure: capital expenditure and recurrent expenditure).

Alley (2016) investigated the long-run and short-run relationship between fluctuations of oil price and fiscal policy using a vector error correction model for 18 oil-exporting countries. The results indicate that, in the short term, fluctuations of oil prices reduced primary fiscal balance (PFB). However, in the long-term, PFB expands in response to oil price fluctuations. It is observed that study did not distintegrate the key variables into sub variables as follows: fluctuations of oil price (opec spot price fluctuation, brent price variation volatility, west texas intermediate price, public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget implementation (public expenditure: capital expenditure and recurrent expenditure).

Dizaji (2014) aimed to examine the dynamic relationship between Iranian government revenues and spending. In addition, this paper focuses on determining how oil price shocks will afect this

relationship. The Impulse Response Functions and the Variance Decomposition have been employed for a quarterly data for the period 1990:2–2009:1. The results show that oil revenue shocks contribute more to government spending compared to the oil price shocks. In addition, the results of the causality test indicate that the direction moves from government revenue to government spending. There is a weak evidence for the reverse causality. It is observed that study did not disintegrate the Iranian government revenues and spending into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax; non-oil revenue (company income tax, value added tax, personal income tax) and government spending expenditure into capital spending and recurrent spending.

Basha (2015) investigated the impact of fluctuations in crude oil prices on the Jordanian public budget for the period 1995 to 2013 using an econometric model of linear regression. The study shows the relationship between variables using Variance Autoregressive (VAR) method. The results showed that there is a statistically significant impact of crude oil prices on the Jordanian public budget deficit. This means that an increase in crude oil prices would result to an increase in Jordanian public budget deficit. It is observed that study did not disintegrate the key variables into sub variables as follows: oil price volatility (opec spot price, brent price, west texas intermediate price, on budget implementation (public expenditure: capital expenditure and recurrent expenditure).

Siddig, Noel and Kian (2016) employed the vector autoregressive model to explore the impact of oil price shocks on the main variables of the Sudan's government budget using quarterly data for the period 2000 to 2100. The empirical results suggest that oil prices decrease significantly influences oil revenues, current expenditure and budget deficit. Oil price increases do not Granger cause budget variables. Results from the impulse response functions and forecast error variance decomposition analysis suggest that oil price shocks have asymmetric effect on government budget. It is observed that study did not disintegrate the key variables into sub variables as follows: oil price volatility (changes in opec spot price, brent price, west texas intermediate price), and Sudan's government budget budget implementation into public capital expenditure and recurrent expenditure.

Eltony and Al-Awadi (2001) examined the impact of oil price fluctuations on seven key macroeconomics variables for the Kuwait economy using quarterly data for the period 1984-1998. They found the causality running from the oil prices and oil revenues, to government development and current expenditure. The results indicated that oil price shocks have a significant impact on GE, development, and current expenditure. Ebrahim and Mohammad (2012) employed the structural vector auto-regression (VAR) model in their study and claimed that increase in oil price influences government capital expenditure and current expenditure of Iran. Rahma, Perera, and Tan (2016). employed the VAR model and explored the impact of oil price shocks on government budget variables in Sudan. Their result suggests that oil price decreases signifcantly infuences oil revenues, current expenditure and budget deficit. However, oil prices increases do not Granger causes Sudan's budget variables. It is observed that study did

not disintegrate the macroeconomics variables for the Kuwait economy into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax; and budget risk factors: oil price fluctuations (opec spot price, brent price, west texas intermediate price on budget implementation (public expenditure: capital expenditure and recurrent expenditure).

Ukwueze (2015) analysed the determinant of public expenditure. Short-run error correction model and long-run static equation were used for comparing the influence of variables on the size of spending. OLS and stationarity test was also used. The results of the study show that external and domestic debts significantly influenced the size of government expenditure only in the short run but might be counterproductive in the long run. It is observed that study did not break the determinant of public expenditure into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax; non-oil revenue (company income tax, value added tax, personal income tax) and budget risk factors: oil price volatility (opec spot price, brent price, west texas intermediate price, public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget implementation (public expenditure: capital expenditure and recurrent expenditure). The study is not based on debt overhang theory which is considered a leading cause of distortion and slowing down capital investment in economies of developing nations and also the research work is not hinged on external loan acquisition which may results in financial precariousness and crowding out the private and public expenditure.

Uguru (2016) empirically examined the relationship between public debt and government expenditure in Nigeria from 1980-2013 using the Ordinary Least Square regression technique, the t-test statistic results at 55 level of significance, revealed that there is a significant relationship between public debt and government expenditure in Nigeria. It is observed that study did not disintegrate the key variables into sub variables as follows: public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) and government expenditure into capital expenditure and recurrent expenditure.

Hakhu (2015) tested the theoretical representation and to analyse the relationship between public expenditure and debt, an empirical analysis using Indian Public Finance Data (1980-2013) is carried out in this study. Time series methods are employed to test the hypothesis that capital expenditure of the government is productive public expenditure. The correlation, cointegration and ECM results show that real capital expenditure is cointegrated with real public debt of the central and the General government. In the long run, real capital expenditure adjusts to bring real public debt on a convergent path. It is observed that study did not disintegrate the key variables into sub variables as follows: debt (external debt, domestic debt), debt servicing (external debt interest service and domestic debt interest service) on budget implementation (public expenditure: capital expenditure and recurrent expenditure). The study is not based on debt overhang theory which is considered a leading cause of distortion and slowing down capital

investment in economies of developing nations and also the research work is not hinged on external loan acquisition which may results in financial precariousness and crowding out the private and public expenditure.

Shabbir and Yasin (2015) examined effects of external debt on social sector expenditure in Seven Asian countries; using panel data sets for the period 1980-2010 and GMM estimation technique. The evidence support the hypothesis that external debt stock and external debt servicing have a significant negative effect on public spending, especially on social infrastructures provisions. Tashevska and Trpkova-Nestorovska (2020)used panel regression analysis to test whether social protection expenditure has crowded-out expenditures on other purposes in the European Union over the period 1995-2018.The results provide some evidence of crowding-out of infrastructure and education spending. Additionally, deficit financing and rising government debt have a significant adverse effect on spending on infrastructure, education and core public services. It is observed that study did not disintegrate the external debt on social sector expenditure in Seven Asian countries; into sub variables as follows: public debt (external public debt, domestic debt), and social sector expenditure (social sector capital expenditure and social sector recurrent expenditure). The study is not based on debt overhang theory which is considered a leading cause of distortion and slowing down capital investment in economies of developing nations and also the research work is not hinged on external loan acquisition which may results in financial precariousness and crowding out the private and public expenditure.

Antra (2015) investigated the active nature of public expenditure components and public debt through an intertemporal optimization framework based on Turnovsky (2007). He explained that public expenditure is classified as 'productive' and 'less-productive' based on the rationale that a percentage of the productive public expenditure corrects disequilibrium in the public debt in the long-run. He reported the 'second-order' conditions from the model which stated that as physical infrastructure increases, the marginal social value of a unit of capital reduces, meaning that beyond its optimal level, an increase in physical infrastructure could still affect public debt inversely; however, this will be at the cost of 'crowding out' of private investment. He used Indian Public Finance data (1980-2013) to test the theoretical representation and analyses of the relationship between public expenditure and debt, using time series methods to discuss the hypothesis that capital expenditure of government is productive public expenditure. The result of the correlation, co integration and ECM shows that real capital expenditure is co integrated with real public debt of the Central and the General government and in the long run, real capital expenditure adjusts to bring real public debt on a convergent path. The amount of disequilibrium corrected is 0.01 and 0.035 for the Central and the Consolidated General Government respectively. He recommended that key policy implications towards increasing public capital expenditure in the Indian economy should be made while complementing it with private investment stimulus to stabilize public debt in the long run. It is observed that study did not disintegrate the public expenditure components and public debt into sub components as follows: public debt (external public debt, domestic public

debt) and public expenditure into capital expenditure and recurrent expenditure. The study is not based on debt overhang theory which is considered a leading cause of distortion and slowing down capital investment in economies of developing nations and also the research work is not hinged on external loan acquisition which may results in financial precariousness and crowding out the private and public expenditure.

Duc-Anh, Cuong, Phu and Arnelie (2015) analyzed the correlation among government expenditure, tax on returns to asset, public debt, and economic growth. The authors described public debt in two forms, domestic and external debt. Their study show that an increase in the tax rate on returns to asset leads to an increase in government expenditure, consumption, and domestic debt which brings uncertain impact of tax rate on external debt. They further explained that when the productivity of capital on production is low (high) and the tax rate is lower (higher) than a threshold, the relation between external debt and the tax rate will have a bell-shaped form, i.e. external debt firstly rises then decreases with the tax rate. It is observed that study did not disintegrate the key variables on government expenditure, tax on returns to asset, public debt, and economic growth into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax; non-oil revenue (company income tax, value added tax, personal income tax), public debt (external public debt, domestic public debt) and government expenditure into capital expenditure and recurrent expenditure). The study is not based on debt overhang theory which is considered a leading cause of distortion and slowing down capital investment in economies of developing nations and also the research work is not hinged on external loan acquisition which may results in financial precariousness and crowding out the private and public expenditure.

Mutascu (2016) investigated the causality between oil revenue and government expenditure using a bootstraps panel Granger causality approach from 1995 to 2012 for ten East European economies that are members of European Union. It is found that there is unidirectional causality from public expenditure to revenue in Bulgaria. For the Czech Republic, Hungary and Slovenia, government oil revenues explain expenditures and a two-way causality exists for the Slovak Republic. No Granger causality is found for Estonia, Latvia, Lithuania, Poland, and Romania. It is observed that study did not disintegrate oil revenue and government expenditure into sub variables as follows: oil revenue (upstream oil revenues, downstream oil revenues, petroleum profit tax; non-oil revenue (company income tax, value added tax, personal income tax) and public expenditure into capital expenditure and recurrent expenditure.

Grace (2014) examined the implications of shocks of public debt and government expenditure on human capital development and growth looking at the role of fiscal constraints through the introduction of government budget constraint for a set of preferred developing countries from 1980-2013. The study captured fiscal challenges facing developing countries in developing human capital which is essential for sustainable growth. The results disclosed that high stocks of public debt, beyond the 30-40% debt/GDP threshold, affect human capital on output growth by limiting government expenditure resources available for developing

human capital. The result of the study also indicates that government expenditure has a positive role to play in developing human capital and sustainability seems uncertain for countries that have fiscal constraints. The study concluded that developing countries that are faced with fiscal challenges like, high public debt and poor revenue prospects for government expenditure sustainability should not depend on domestic resources but seek global support on capacity building (human capital development). The author suggests public debt management strategies and efficient government expenditure management frameworks supported by sustainable revenue prospects to provide fiscal sustenance thrust to enhance the growth process in developing countries. It is observed that study did not break down the shocks of public debt and government expenditure into sub variables as follows: public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget implementation (public expenditure: capital expenditure and recurrent expenditure). The study is not based on debt overhang theory which is considered a leading cause of distortion and slowing down capital investment in economies of developing nations and also the research work is not hinged on external loan acquisition which may results in financial precariousness and crowding out the private and public expenditure.

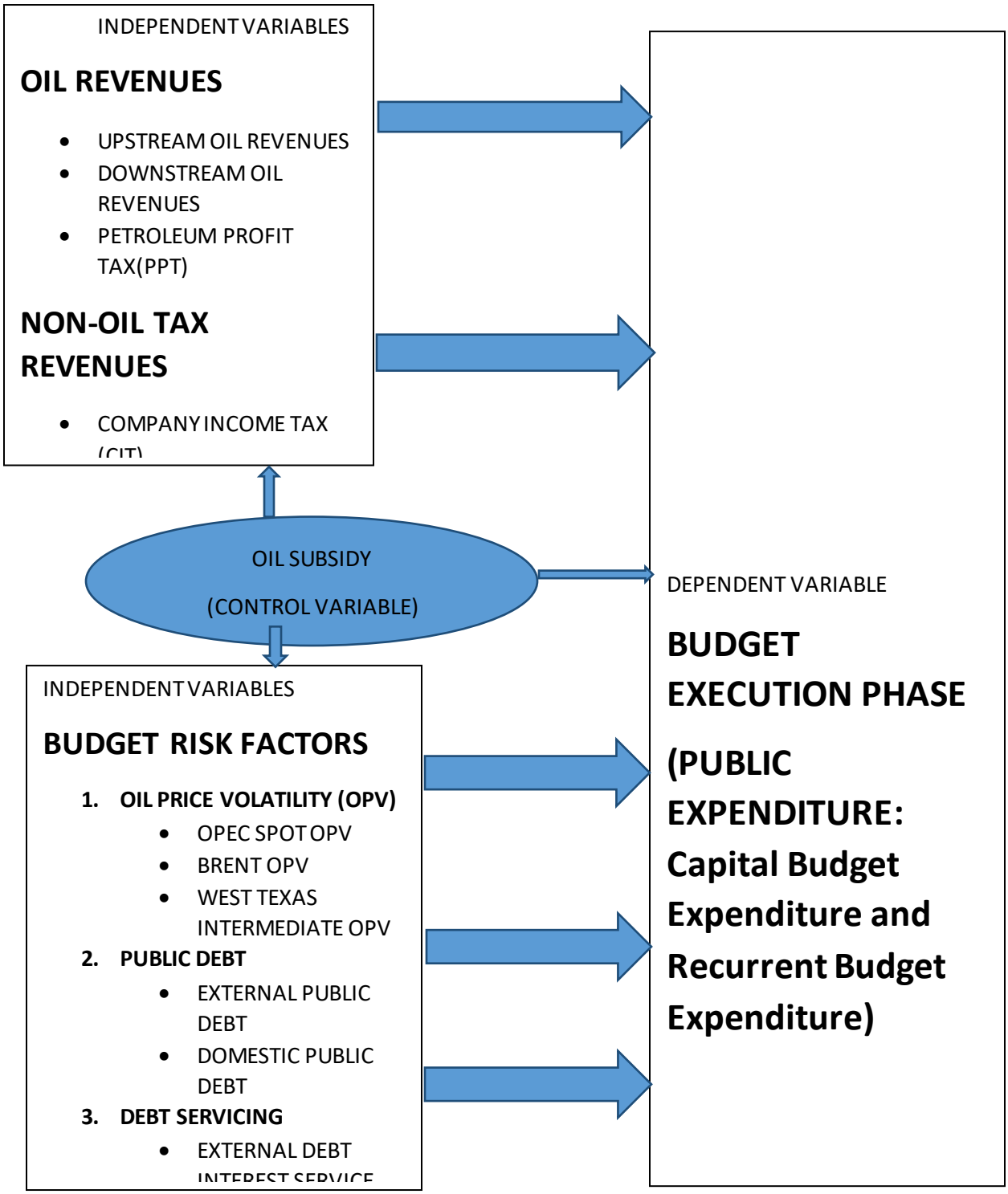
Fosu (2010) assessed the external debt-servicing constraints and public expenditure composition in Sub-Saharan Africa (SSA) in the light of the then global financial crises to investigate how governments in SSA allocate their budgets across sectors in response to a binding debt-serving constraint. Within a framework of public expenditure choice, the author estimates constraints-consistent debt-service ratios and employed regression involving a five-year panel for up to 35 African countries over a period of 1975-94. Debt service is found to be a poor predictor of expenditure allocation. Also it was discover that debt servicing shifts spending away from social sector with similar impacts on education and health sectors. It is observed that study did not disintegrate the external debt-servicing constraints and public expenditure composition in Sub-Saharan Africa (SSA) into sub variables as follows: public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget implementation (public expenditure: capital expenditure and recurrent expenditure). The study is not based on debt overhang theory which is considered a leading cause of distortion and slowing down capital investment in economies of developing nations and also the research work is not hinged on external loan acquisition which may results in financial precariousness and crowding out the private and public expenditure.

Aregbeyen and Akpan (2013) examine the long-term determinants of public spending in Nigeria; estimating a single equation using 50 years annual time series data. The finding shows that foreign aid increase recurrent expenditure and decrease capital expenditure; debt servicing crowd-out all components of expenditure; revenue exert significant long - term effect on government size ; openness reduced government expenditure significantly; higher population translate to higher government expenditure; military regime favor capital expenditure more compare to civilian administration in Nigeria; election period accentuate government expenditure than would otherwise be the case. It is observed that study did not

disintegrate the key variables on long-term determinants of public spending in Nigeria into sub variables as follows: public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget implementation (public expenditure: capital expenditure, government-owned enterprises spending, sinking fund, statutory deductions and recurrent expenditure).

Recommended Conceptual Frame work for Future studies

Source: Author, 2022.



3.0 Summary of Finding from Relevant Literatures

It is observed from relevant literature that there are mixed results on the effect and causality between revenue and expenditures (while some studies discovered significantly statistical and positive relationship between public expenditure and public revenue, many researchs also revealed significantly statistical and negative relationship between public expenditure and public revenue and few has no significantly relationship between public revenue and expenditure, (Saunoris , 2013; Fasano &Wang, 2002; Abdulla, 2012; Kabaklarli, 2016; Lojanica, 2015; Baharumshah, Jibrilla, Sirag, Ali & Mulammad, 2016; Mutascu, 2016; Fasano, U. & Wang, Q., 2002; Al-Qudair, K. H., 2005; Fasanya, O. I., Onakoya, A. B. O. & Adabanija, M. A., 2013; Hye, Q.M.A. & Jalil, M. A., 2010).

It is examined from related works that there are diverse results on the effect and causality between oil price variation and expenditures (while some studies discovered significantly statistical and positive relationship between crude oil price shocks and budget expenditures, many researches also revealed significantly statistical and negative relationship between oil price volatility and public expenditure and few has no significantly relationship between oil price fluctuation and capital budget expenditures, (Rahma, Perera & Tan, 2016; Alley, 2016; Dizaji, 2014; Basha,2015; Siddig, Noel & Kian, 2016; Eltony & Al-Awadi, 2001);Ukwueze, 2015; Ebrahim, E., Mohammad, A.A., 2012).

It is ascertained from appropriate studies that there are varied results on the effect and causality between public debt, debt servicing and expenditures (while some studies discovered significantly statistical and positive relationship between government debt, debt servicing costs and public expenditure, many researches also revealed significantly statistical and negative relationship between public debt, public debt interest payments and government spending and limited studies have no significantly relationship between public borrowing, servicing and expenditure, (Uguru, 2016; Hakhu, 2015; Shabbir & Yasin, 2015; Antra, 2015; Duc-Anh, Cuong, Phu, & Arnelie , 2015; Grace, 2014; Fosu, 2010; Aregbeyen & Akpan, 2013; Serieux, J. & Yiagadeesen, 2001; Fosu, 2008; Fosu, 2011; Idenyi, Igberi, & Anoke, 2016; Ijirshar,Joseph, & Godoo, 2016); Patenio & Agustina, 2007).

The evidence provided by the empirical literature is that there are indeed heterogeneous responses to position on complex causality among oil revenue, non-oil revenue, fiscal risk factors and budget execution phase in relation to debt overhang and crowding-out theory. it is detected that most study reviewed did not disintegrated relevant revenue : oil revenue(upstream oil revenues, downstream oil revenues, petroleum profit tax (PPT)); non-oil revenue (company income tax (CIT), value added tax (VAT), personal income tax (PIT) and budget risk factors: oil price volatility (OPV)(OPEC Spot OPV, Brent OPV, West Texas Intermediate OPV), public debt (external public debt, domestic public debt), debt servicing (external debt interest service and domestic debt interest service) on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure).

4.0 Conclusion

Thus, significant more research is required in this line of research, especially the broad objective of the study is to investigate the causality among oil revenue, non-oil revenue, fiscal risk factors and budget execution phase in relation to debt overhang and crowding-out theory, while the specific objectives are to: investigate the effect of oil revenue on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure) in Nigeria; examine the correlation between non-oil tax revenue and budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure ; assess the effect of oil price volatility on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure) ; evaluate the influence of public debt on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure); examine the effect of debt servicing on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure).

5.0 Recommendation.

It is recommended that research effort should be made in answering the following research questions: What is the effect of oil revenue on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure) in Nigeria? How is non-oil tax revenue correlates with budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure) in Nigeria? Of what effect is oil price volatility have on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure) in Nigeria? What is the influence of public debt on budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure) in Nigeria? How does debt servicing statistically affect budget execution phase (public expenditure: capital budget expenditure and recurrent budget expenditure) in Nigeria?

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