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Effect of Budget Finance on Economic Growth in Nigeria

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Abstract

Purpose: This study investigated the effect of budget finance on Nigeria's economic growth using annual data from 1991 to 2021 and the Autoregressive Distributed Lag technique.

Methodology: The E-Views 10 statistical software was employed to carry out multiple Autoregressive Distributed Lag (ARDL) approach to co-integration proposed by Pesaran et al. (2001) to empirically analyses the long- and short-run effect of budget finance on economic growth in Nigeria 1991 to 2021.

Results: The results of the study showed that government capital expenditures during the period had negative and non – significant effects on Nigeria's real gross domestic product but recurrent expenditure and debt shows that there is positive and significant relationship with Nigeria's real gross domestic product. The results suggested that there should be proper monitoring in the capital expenditure project in order to contribute positively to the economic growth in Nigeria.

Unique Contribution to Theory, Policy and Practice: The study recommends that government should improve in their capital expenditure for increase in the growth of the economics. In addition, the government should ensure adequate capital and recurrent expenditure implementation in the country, particularly in construction of roads and buildings, and efficient capital budget implementation in the country. Moreover, is it advisable for government to reduce the level of borrowings because if continues it will lead to debts of the country.

Keywords: *Economic growth, capital expenditure, recurrent expenditure, and debts*

INTRODUCTION

Budget finance is an important instrument of governance in any modern state. It exercises control over size and relationship of government receipts (revenue) and expenditures (payment) (Edame, 2010). These expenditures comprise of recurrent expenditures, capital expenditures, subsidies, debt servicing and so on. These expenditures often have significant effect on the economic growth. In a bid to achieve the macroeconomic goals and objectives of stable and full employment, infrastructural development among others, the national government initiates several types of budget such as surplus, balanced, deficit, supplementary, development budget; and also include the line item or traditional budgeting system, performance budgeting system, planning budgeting system, programming budgeting system and the zero-based budgeting system.

Ogujiuba and Ehigiamusoe (2013) stated that capital project includes the likes of construction of roads, bridges, hospitals, schools, prisons, public administrative buildings, highways, dams, and irrigation systems; the purchase of machinery and equipment; and the supply of water, electricity, and transport, health, and educational facilities. Either a recurrent or capital budget, a budget must fulfill the obligation for which it was initiated. Generally, for a budget (capital or recurrent) to perform its obligations effectively and efficiently, it must however possess some important qualities. Faleti and Myrick (2012) in their study opined that for a public budget to effectively perform its obligations, it should be well designed, effectively and efficiently implemented, adequately monitored, and ultimately, its performance should be evaluated. However, it must be stated herein that the beauty of a budget lies not in its formulation or initiation but in its implementation. The performance of a country's budget heavily depends on whether it is effectively and efficiently implemented to meet the needs and aspirations of the people of the country. A budget finance helps to translate government policies and programs into outcomes that have a direct, positive impact on people, such as the development of critical infrastructure(electricity, roads, water, hospitals, schools and so on),the provision of employment opportunities, the reduction of poverty, and the supply of transport, health, and educational facilities. Hence this study analyses the effects of budget finance in economic growth in Nigeria. The size and structure of public expenditure (both recurrent and capital expenditure) is expected to boost the growth in output of the economy. This statement is believed to be true even without conducting any research whatsoever.

Every country's budget has two sides of its expenditure, the recurrent expenditures and capital expenditures. The formal are governments' payments for non-repayable transactions within a year while the later are governments' payments for non-financial (non-profit) assets used in the production for more than one year (CBN2010). Most developing countries in Africa including Nigeria experience high demand for capital projects that require high government expenditure and attention. But it sad to know that most developing countries put less resources in financing capital projects and more resources in financing recurrent needs of the country.

In the recent years government has also given attention to capital expenditure in Nigeria, in 2003 the capital expenditure increased from N241,688.3 million to N351,300.0 million in 2004, in 2005 the capital expenditure increased to N519,500.0 million, from N552,385.8 in 2006 to N759323.0 in 2007 and from N1,152796.6 in 2009 to N2b in 2010 CBN.

Despite this huge amount of capital expenditures, there is still an insignificant level of development witnessed. Public expenditure on all sectors of the Nigerian economy is expected to lead to economic growth in the sense that capital expenditure will boost the productive base of the economy which in turn will lead to growth. The interest by economists in Nigeria and other jurisdictions on the role of government capital expenditure is still inconclusive. Recurrent expenditures occur regularly throughout the year and must be maintained, e.g. salaries of employees, expenses on the maintenance of infrastructural facilities. Capital expenditure involves expenditure of government on the acquisition of things of permanent nature. Expenditures on capital projects such as buildings, construction of roads, etc. (Nwaeze, 2005).

In the view of the Keynesians, government has a role to play in achieving economic growth among nations of the world. This is against the backdrop that government has the primary duty of providing public goods which the private sector may not have the capacity to provide such as roads, security, electricity, hospitals etc. (Olugbenga and Owoye, 2007; Oziengbe, 2013). However, Keynesian ideology tends to acknowledge the effective contribution of government capital expenditure towards achieving economic growth rather than government recurrent expenditure (Muhles and Hekan, 2003; Gushibet and Tsenba, 2016). Therefore, one tends to wonder whether recurrent expenditure matters in economic growth.

In Nigeria, government recurrent expenditure has continued to rise especially since the inception of the democratic era which began in 1999. Available data by the Central Bank of Nigeria (2016) revealed that government recurrent expenditure recorded an upward movement in all the years under study except in 2013. From a total sum of ₦449.66bn in 1999 up to ₦3,325.16bn in 2012 and it declined a bitto ₦3,214.95bn in 2013. In 2014, it commenced an upward movement from ₦3,426.94bn to ₦4,177.59bn in 2016. On the overall, the trend revealed a consistent increase in recurrent expenditure of government. This ever-increasing government recurrent expenditure has attracted lots of criticisms and complaints from a good number of citizens who argue that the government was wasteful and that the much spent on servicing recurrent component of the government should have been channeled to capital projects Ijaiya 2000, Nurudeen and Usman, (2010). The impression created by the above argument is that recurrent expenditure does not increase economic growth in Nigeria. Thus, this study intends to make us to understand the effect of recurrent and capital expenditure in Nigeria.

LITERATURE REVIEW

The relationship between public expenditure (capital and re-current expenditure) and economic growth has continued to generate series of controversies among scholars in economic literature.

The nature of the effect is in conclusive and while some authors believed that the effect of recurrent and capital expenditure on economic growth is negative or non-significant (Akpan, 2005) others believed that the effect is positive and significant (Korman and Brahmasrene, 2007). The recent revival of interest in growth theory has also revived interest among researchers in verifying and understanding the linkages between fiscal policies and economic growth. Over the past decade and a half, a substantial volume of empirical research has been directed towards identifying the elements of public expenditure that bear significant association with economic growth. This empirical literature varies in terms of data sets, econometric techniques, and often produces conflicting results. Explanations offered to account for these varied and conflicting results can broadly be divided into two categories. According to the first, it is the differences in the set of conditioning variables and initial conditions across studies that are responsible for the lack of consensus in the results (Levine and Renelt 1992). In contrast, the second category consists of a handful of studies (Helms 1985; Mofidi and Stone 1990; Kneller et al. 1999) that suggest this variation in the results, in part at least, reflects the wide spread tendency among researchers to ignore the implications of the government budget constraint for their regressions. In particular, the latter view emphasizes the need to consider both the sources and the uses of funds simultaneously for a meaningful evaluation of the effects of taxes or expenditures on economic growth.

Aregbeyen (2007) established a positive and significant correlation between government capital and public investment and economic growth, while he found that current and consumption expenditures were negatively associated with it. Other studies also confirm either a negative or a positive correlation/relationship between fiscal policy (with government expenditure, public investment or related variables used as proxies) and economic growth.

Laudau (1983) studied the effect of government (consumption) expenditure on economic growth for a sample of 96 nations. His result was that there is a negative effect of government expenditure on growth of real output. Kormain and Brahmasrene (2007) studied the economy of Thailand. They made use of the Granger causality tests. Their finding was that government expenditures and economic growth are not co-integrated but indicated a unidimensional relationship. This is because, causality runs from government expenditure to growth, and also detected a significant positive effect of government spending on economic growth. Gregorious and Ghosh (2007) made use of the heterogeneous panel data to study the impact of government expenditure on economic growth. The result was that countries with large government expenditure tend to experience higher growth. Donald and Shuanglin (1993) studied the differential effects of different forms of expenditure on economic growth for 58 sampled countries. They came up with the result that government expenditure on education and defense has positive impact on economic growth and that of welfare was insignificant and negative= 1/k in 2: Where T is the amount of time required for Y to double in size, the constant k(k>o) is the growth rate; and in 2 ≈ 0.6931 also called rule of 70. Growth means an increase in economic

activities. Todaro (2009) citing Kuznets defined a country's economic growth as a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growth capacity based on advancing technology and the institutional and ideological adjustment that it demands. According to Barro and Grilli (1994), Government spending (or government expenditure) includes all government consumption and investment but excludes transfer payments made by a state. Government expenditure can be for the acquisition of goods and services for current use to directly satisfy individual or collective needs of the members of the community or it can be for acquisition of goods and services intended to create future benefits such as infrastructure investment and the expenditures can represent transfers of money, such as social salaries and cost of administration. In Ijaiya 2003, government expenditure is determined by rapid population growth and subsequent demographic transitions, increase in income and taste of the people in a country that had led to increase in demand for government goods and services, increase in technological requirements for industrialization, increase in urbanization, increase in inflation over time, balance in productivity growth between public and private sector, and the need to address natural disasters among other things.

Similarly, government expenditure is influenced by the expanded roles of government which include among others, the provision of pure public goods for, example, defense, law and order, properly rights, macroeconomic management, public health and education, protecting the poor through the provision of anti-poverty programmes and disaster, relief programmes, addressing externalities, for example, environmental protection, provision of social insurance, coordinating private sector activities and redistribution of income and assets (2006).

On economic growth Olopade and Olopade (2010) defines economic growth as the expansion of a country's potential GDP or output. For instance, if the social rate of return on investment exceeds the private return, then tax policies that encourage can raise the growth rate and levels of utility. Growth models that incorporate public services, the optimal tax policy lingers on the characteristic of services.

Economic growth has provided insight into why state growth at different rates over time; and this influence government in her choice of tax rates and expenditure levels that will influence the growth rates. For instance, exponential growth model is used when the rate of increase is proportional to the amount of quality present e.g. tax = y (t) = yoekt where (t) is the amount present at any time t, yo is the amount present at initial time = o; and the K is constant (k>o) is the growth rate. If a company increase production, tax will increase, it is also useful in studies in population growth known as doubling times with the following equation.

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CONCEPTUAL REVIEW

Government Budget

A government budget is an annual financial statement presenting the government's proposed revenues and spending for a financial year that is often passed by the legislature, approved by the Chief Executive or President and presented by the Finance Minister to the nation. The main components of government budget include revenue and capital budgets. Revenue budget is a financial statement of revenue receipts of the government, that is revenue collected from taxes and other receipts. The Federal budget comprises three primary components; revenues, discretionary spending and direct spending. Government or public expenditures could be expressed as those expenses incurred by any government/public institution in the maintenance of herself for public good and the economy assistance to external bodies and other countries [Obasieke 2016 in Anyanwu 1993]. Government / Public sector is simply defined as 'all organizations which are not privately owned and operated and which are established, run and financed by Government on behalf of the public. This definition therefore posits that public sector consists of organizations where control lies in the hand of the public, different from private owners and whose objectives involve the provision of services, where profit is not a primary motive [ICAN

Public Expenditures

Public expenditures have two main categories, namely capital expenditure and recurrent expenditure. According to Central Bank of Nigeria (CBN) (2011), government (public) capital expenditure is the money spent on goods by the governments which are classified as investment goods. This means public spending on things that last for a period of time. This may include investment in hospitals, schools, power sector, telecommunication and road construction. Government recurrent expenditure refers to all payments made by government other than for capital assets. These include the payments for goods and services (wages and salaries, employer contributions), interest payments, subsidies and transfers, etc. Government expenditure items, whether recurrent or capital, are usually classified into four major groups, namely: administration, economic services, social and community services and transfers. Capital expenditures also include capital components of statutory transfers, alongside government owned enterprises capital and project - tied loans

Public debt

Public debt also known as government debt or national debt is money owed by government or total debt of all governmental units, including state and local governments. Public debt is defined

as the total financial responsibilities acquired by governmental bodies of a nation, which includes money that is owed to individuals, mutual funds, hedge funds, pension funds, foreign governments and others. It considers government liabilities, future pension payments and payments for goods and services that the government contracted but not yet paid for. Public debt is one of the methods of financing government operations; governments can also create money to settle her debts in order to avoid interest payment, though creation of money will only reduce interest cost and will not cancel the debt itself which may cause hyperinflation. And in some other times government mightincrease tax so as to finance debt repayment in the economy. Public debt is in different forms: internal or domestic debt (owed to lenders within the country) and foreign or external debt (owed to foreign lenders). Debt repayment arises in short term (on or less than one year), medium term (between boundaries of short and long term) and long term (more than ten years). It has been observed that there is a correlation between government expenditure and government debt in the economy and that increase in deficit spending by government will also bring an increase in the amount of debt. Government borrowing shrinks accessible funds and increases the cost of capital, thereby causing businesses to abandon investment projects in the economy. Similarly, if government spends more than her receipts (deficit), her decision to borrow funds to finance that deficit will in most cases result to crowding out of private investments and deadweight loss on future taxation. This means that when governments borrow from financial markets, they effectively crowd out other interested borrowers (private investors) and compel them to pay higher interest rates which has the capacity to discourage investment implicitly the higher cost of capital will then make the private investors to abandon the expansion plans that would have brought positive economic outcome. The multiplier effect of government spending has not helped out in counterbalance of impact of public debt in the economy which necessitates further increase in taxes and places burden on current/future generations.

THEORETICAL REVIEW

Theory of Allocative Efficiency in Public Expenditure

All financial plans ration resources by allocating money for some uses and withholding it from other areas depending on the desired direction of the government in power. The efficacy of public programs depends on these allocations, but governments face numerous challenges to making accurate competent allocations in the economy. The main task of modern public expenditure management is to create the conditions that promote allocative efficiency. Allocative efficiency means the ability of government to allocate resources on the basis of the effectiveness of public programs in meeting its strategic target. This involves the power to transfer resources from previous priorities to new ones, and from less to more useful programs in the economy. Allocative efficiency demands that the government establishes and prioritizes targets and that it

assesses the real contribution of government spending to those set targets. To allocate efficiently government must be tactical and evaluative; it must both look ahead and identify what it wants to realize and look back to scrutinize the outcome. The relationship of deliberate planning and program appraisal to ongoing budget technique has been a regular issue in government expenditure management. Establishing a tight link has been a frequent theme in budget reform during the past half century in developing economies yet many governments have tried, only few have succeeded. The rate of failure had been soaring for the reason that striving for allocative efficiency increases informational burdens, transaction costs, and political conflict in an economy. Informational needs are higher because of the demand for additional facts on program impacts; political conflict escalates because of efforts to redistribute budgetary resources. The duty of modern public expenditure management is to improve allocative efficiency without overstraining the ability of government to process information and deal with conflict. Except information demands and budgetary conflict are manageable, governments may favor sub optimal allocations that permit them to muddle through the yearly financial plan exercises which has become an annual ritual in developing economies.

Liberal Economic Theory

The liberal economic hypothesis also offers reasonable argument on the debt predicament in developing countries. The key disagreement here is that economic liberalization will help in the increase of flow of overseas investment into the developing countries, as a result of the reduction of trade and exchange limitations. The idea is that in the process of homogenizing the political economy of every member state of the international community that the purpose of creating a market society on an universal scale is within reach (Biersteker, 1993). One of the major objectives of liberalization is to decrease the resource gap in the LDCs, by improving the trade balance and encouraging a net capital inflow. Thus, the rising significance of global organizations such as the G7, IMF and World Bank is indicative of the sway of liberal economic internationalism in the post-Cold War period. Nevertheless, events in the developing world provide us with some reasons why attempts made in redressing the situation through the encouragement of increased foreign borrowing have contributed to the current debt crisis by increasing the resource gap even further. These influential transnational bodies which embody free trade liberalism as their governing ideology however impose free market restrictions on developing societies.

Wagner's Law

Wagner's Law of Increasing State Activities Adolf Wagner in his well celebrated book, Grundlegung der Politischen Okonomie, published in 1963 formulated a law of increasing state activities. He asserted that there is a long run propensity for the scope of government to increase with higher levels of economic development. Before Wagner made his observations, the prevailing views was the notion that as a country grows richer, government activities would have

a tendency to decline (Henrekson, 1993). Bird (1971) concurred with Wagner's law stating that 'the activities of government are an increasing function of the changing structure of the economy'. Whether the state decides to combat or to support private sector activity such as private monopolies, with the growth of this sector, it is plausible to assume that public sector activity will increase. It is conventional however, to use per capita income as an index of development but this is not the only index of development nor is it the only compatible interpretation of the law but it continues to be used by most economists (Bird, 1971; Goffman, 1968; Gupta, 1967; Michas, 1975; Musgrave, 1969). Government expenditure is probably the most significant and practical measure of the state's activity.

Wiseman-Peacock Hypothesis Peacock and Wiseman (1979)

This theory also looked at increasing public expenditure from the socio-political perspective. Government expenditure will increase as income increases but because the leaders want re-election into political offices, so more infrastructure must be provided in order to convince the electorate that their interest are being catered for by the people they voted into power. However, the citizens of the country are less willing to pay tax. The resistance to pay tax by the people will make the state to have low revenue hence the cost of providing more facilities is born by the government, making government expenditure to increase rapidly.

Keynesian Public Expenditure- Economic Growth Theory

Keynesian public expenditure- economic growth theory has attracted a vast array of empirical investigation by economists especially from academic setting over time. Keynesians‟ in other hand postulates a function with the orientation that runs from government increasing undertakings to economic improvements. These expenditures are considered as normal goods in society's stance with income elasticity of demand greater than one. Keynesian's stance evolved at the hill of the Great depression of late 1930s. This advocating for government involvement in the economic managements brought about, a tremendous evolution in the field of economic. The periods witness a considerable growth on sensitive economic indicators such as investments, employment creation, and general demands whereof government spending (Musgrave and Musgrave, 1989).

EMPIRICAL REVIEW

Some empirical studies have been done on the effect of budget finance on economics in Nigeria. Below are some of the researcher discussion about, capital expenditure, recurrent expenditure and debt in the economic growth in Nigeria.

Odo, Igberi, and Anoke (2016) in their study they investigated the causal relationship between total public debt and public expenditure in Nigeria from 1980 to 2015.The emphasis of their study is to determine if government borrowing in Nigeria is based on the need to provide public

goods likes social services and infrastructure as provided in the budget as posited by Adam Smith (1776) in his theory of public debt. Applying co integration, vector error correction model and Wald test econometric tools of analysis to public debt, government capital expenditure, government recurrent expenditure and interest rate variables within the study period. The findings of the VEC test indicate that government capital and recurrent expenditure has significant positive relationship with public debt in the Nigerian economy. The Wald test result shows that unidirectional causality runs from both capital and recurrent expenditure to public debt in Nigeria. An obvious implication of this result is that government borrowing in Nigeria is triggered by government deficit budgeting, a situation which is well known in Nigeria at both federal and state levels. They therefore recommends the introduction of planning-programming-budgeting systems (PPBS) and Zero based budgeting (ZBB) in preference to the current practice of incremental budgeting (IB) in our public finance at both federal and state levels as is the current global practice considering that these budgeting approach seeks to intensify competition for budget resources and consequently aids the realization of government fiscal policy goals in the economy.

However, Chukwu, Dr. Udochukwu (2019), they focus on the study that examine the effects of recurrent expenditure components; namely, Administration, Social and Community Services, Economic Services and Transfers, on economic growth in Nigeria. The VAR methodological framework is employed while the empirical data cover from 1981 to 2016. The results show that while GDP responded positively to a one standard deviation shock to recurrent expenditure on administration, it responded negatively to a one standard deviation shock to recurrent expenditure on both social community services and transfer. The results further show that most of the GDP shocks are due to own effect. Compared to other components of recurrent expenditure, the relative contribution of recurrent expenditure on transfer to GDP innovation is highest in the second period while the relative contribution of recurrent expenditure on administration is highest in the third and fourth periods. However, the Granger Causality test shows that recurrent expenditure components none has a causal impact on GDP both individually and collectively. Therefore, the Keynesian view that public expenditure is a veritable fiscal tool for promoting and enhancing economic growth is not supported. The policy implication of our findings is that Federal government can only achieve the desired growth in economic activities using fiscal policy if the recurrent expenditure component of public expenditure is reduced. Moreover, their result suggested that, the proportion of recurrent expenditure that is allocated to economic services should be increased while the proportion that is allocated to both social community services and transfer should be decreased.

Clement, OLAOYE and Afolabi (2017) examined the impact of capital budget expenditure implementation on economic growth in Nigeria. In detail, the study assessed the impact of implementation of capital expenditure on administration, economic services, socio-community services on the growth of Nigerian economy. Data used was secondary data and was

collectedfrom Central Bank of Nigeria (CBN) statistical bulletins, and analyzed with the use of Augmented Dickey-Fuller unit root test, co-integration test and error correction model (ECM) analysis. Moreover, it was concluded that capital expenditure implementation is germane in maintaining and sustaining economic growth in Nigeria. Hence, it was recommended that government should ensure adequate implementation of capital expenditure in the country especially in areas of economic and socio-community services and also overhaul ministries, government agencies and parastatals to curb and curtail loopholes impeding effective and efficient implementation of capital budget in the country.

Modebe et al. (2012) in order to influence the community around positivity this paper research was worked on the impact of government expenditure on its impact on economic development and growth of nations. It is against this background that this paper examines the impact of government expenditure (disaggregated into recurrent and capital expenditure) on economic growth from 1987 to 2010. Three variable multiple regression model was adopted while recurrent expenditure and capital expenditure were used as independent variable and gross domestic product growth rate as dependent variable. The result emanating from this study reveals that while recurrent government expenditure had positive and non-significant impact on economic growth, capital expenditure had negative and non-significant impact on economic growth thus re-echoing the need for increase and encouragement of private sector investment while have proven over the years as a more efficient utilization of resources compared to the public sector.

Chandana, Adamu and Musa (2021 investigate a paper title the impact of Nigerian government expenditure (disaggregated into capital and recurrent) on economic growth using time series data for the period 1970-2019. The paper employs Autoregressive Distributed Lag (ARDL) model, to ensure robustness of results, the study accounts for structural breaks in the unit root test and the co-integration analysis. The key findings of the study are that capital expenditure has positive and significant impact on economic growth both in the short run and long run while recurrent expenditure does not have significant impact on economic growth both in the short run and long run. The study recommends that government should increase the share of the capital expenditure especially on meaningful projects that have direct bearing on the citizen's welfare. They should also improve the spending patterns of recurrent expenditure through careful reallocation of resources toward productive activities that would enhance human development in the country.

Another researcher, NWALA, Maurie and GBOJI (2020) also examined the effect of budget implementation on economic growth in Nigeria, using Ex-post facto research design was adopted for this study. Secondary data relating to the study were obtained from Federal Ministry of Finance and Central Bank of Nigeria Statistical Bulletin for the period 1981 to 2018. Gross Domestic Product was used as the dependent proxy, while Capital expenditure, Recurrent expenditure and Debt as the independent proxies. Using E-Views 10, it was found that capital

expenditure exerts positive and significant relationship with the Gross Domestic Product of Nigeria. Likewise, recurrent expenditure and gross domestic product show positive and significant relationship, and government debt and gross domestic product also show negative and significant relationship. Based on these it is recommended that government should try to put in place effective machineries that will ensure the strict adherence to due process and total implementation of annual budget provision and avoid diversion of public funds to personal uses.

It is always said that the improvements in the federal capital expenditure will result to the increase in the economic growth especially in developing country like Nigeria. Nazifi 2014, in his paper therefore examined an attempt to empirically ascertain that fact by investigating the impact of federal capital expenditure on economic growth in Nigeria from 1980-2010. To establish this empirical fact, we employed multiple regression model of Ordinary Least Squares using secondary data. From the result, the Total Capital Expenditure (TCE), Capital expenditure on administration (ADM), capital expenditure on social community services (SCS) and capital expenditure on transfers (TRF) have positive impact on economic growth in Nigeria; this implies increase in these variables will cause positive change in economic growth. On the contrary, Capital expenditure on economic (ECO) has a negative impact on economic growth in Nigeria. One of the major challenges of poor utilization of federal capital expenditure is the issue of mismanagement of funds, the author recommends that government should increase its funding of antigraft or anti-corruption agencies like the Economic and Financial Crime Commission (EFCC), and the Independent Corrupt Practices Commission (ICPC) in order to arrest and penalize those who divert and embezzle public funds especially funds for capital expenditures.

Moreover, Emejulu (2019) also examined the assessed government expenditure in Nigeria and its effect on economic growth 2004 to 2016. The major goal was to examine the effect of government expenditure on economic growth in Nigeria. In the study, the ex-post facto research design was adopted. The data employed in the research were sourced from the Statistical bulletin of Central Bank of Nigeria. The study adopted the SPSS version 20 for analysis and employed linear progression [ANOVA] technique, coefficient of determination and coefficient of correlation, where Y1; Economic growth; proxied by GDP and Annual Transfers, is the dependent variable and responsive to the independent variable X1; Government Expenditure, denoted by Recurrent and Capital expenditures. The results of the findings reveal that recurrent expenditure has no significant effect on economic growth in Nigeria, while transfers have significant effect on economic growth in Nigeria. The implication of the findings is that accumulation of foreign debts by government should be discouraged.

Method

This study employed the ex-post facto research design. The Ordinary Least Squares (OLS) regression technique was used to analyze the annual time-series data for the period from 1991 to 2021. Economic development was proxied by real gross domestic product while budget finance,

the explanatory variable, was represented by public capital expenditure; public recurrent expenditure and debt. The secondary data were retrieved from the CBN Statistical Bulletin 2020.

The general form for a multiple regression analysis is given in the form below:

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3\ \mu$…… (1)

where: Y = dependent variable β0 = equation constant β1, β2 = coefficients of explanatory variables X1 X2 X3 = independent or explanatory variables μ = error term Given the above general multiple regression function and the proxies for recurrent and capital expenditure

$Gdp = \beta 0 + \beta 1RECUEXP + \beta 2CAPEXP + \beta 3DEBT$…… (2)

GDP: Gross domestic product, RECUEXP: Recurrent expenditure, CAPEXP: Capital expenditure, and DEBT

RESULTS

Table 1 Units root test

s/n	series	ADF test Statistic	5% values critical	P values	Remarks
1	Gdp	0.997095	-3.568379	0.9998	Not stationary
2	Caexp	-5.052809	-3.580623	0.0018	Stationary
3	Debt	0.070623	-3.221738	0.9953	Not stationary
4	recuexp	2.016312	-3568379	1.0000	Not stationary

In the above unit root test under the Augmented Dickey Fuller trend and intercept @ level shows that Gdp,debt and Recuexp are not stationary and the values of the ADF t. statistic values is less than the values of the 5% critical values. Moreover, the results also show that Capexp is stationary at level, looking at the values of the Augmented Dickey Fuller t. statistic values is greater than the values of the 5% critical values.

Table 2 Augmented dickey fuller unit root test

Trend and intercept@ 1st different

s/n	series	ADF test Statistic	5% values critical	P values	Remarks
1	Gdp	-4.654818	-3.587527	0.0049	Stationary
2	Caexp	-5.534238	-3.587527	0.0006	Stationary
3	Debt	-2.109913	-3.574244	0.5191	Not stationary
4	recuexp	-4.121240	-3.632896	0.0192	Stationary

In the above units root test under Augmented Dickey fuller shows that Gdp,Capexp and Recuexp are stationary at 1st different, whereas we can see that debt is not stationary at 1st different. The values of ADF t. statistic is greater than the value of 5% critical values in Gdp,Capexp and Recuexp. This make us to understand more the level of their stationary but under the Debt the ADF t. statistic is less than the 5% of the critical values which also contributed to it not stationary.

$GDP = \beta 0 + \beta 1RECUEXP + \beta 2CAPEXP + \beta 3DEBT$

DATA ESTIMATION TECHNIQUE

The study uses the Autoregressive Distributed Lag (ARDL) approach to co-integration proposed by Pesaran et al. (2001) to empirically analyse the long- and short-run effect of budget finance on economic growth in Nigeria. This method presents some significant advantages over the two alternatives commonly used in empirical literature: the single-equation procedure developed by Engle and Granger (1991) and the maximum likelihood method postulated by Johansen, 1995 and Juselius, 1995) which is based on a system of equations that require sample period to be very long and all variables to be integrated of order 1 or I(1). First, the ARDL bounds testing method consents to the study of long-run relationships between variables, irrespective of whether they are stationary at levels (I(0)), first difference (I(1)) or fractionally integrated. This helps to circumvent some of the common problems encountered in time series empirical research, such as the absence of unit root tests power and confusion about the stationarity properties of the study variables. Pesaran et al. (2001), further maintained that the dependent variable should be stationary at first difference (I(1)) to ensure the significance of the co-integrating relationship whereas the independent variables can either be stationary at first difference (I(1)) or at levels (I(0)).

Second, the ARDL method allows for the simultaneous estimation of the short-run and long-run effect of budget finance on economic growth, removing the problems associated with omitted variables and the occurrence of autocorrelation. Third, although the results from the estimation process derived from the Engle & Granger, and Johansen & Juselius methods are not efficient and consistent for studies with small sample size, Pesaran and Shin (1999) specified that the short- and long-run parameters calculated using the ARDL technique are reliable and efficient for small sample analysis that can be compared to what we have in this study. Furthermore, the ARDL model can accommodate greater number of variables in comparison to vector autoregressive (VAR) models and more flexible with respect to lag structure since it can accommodate different optimal lag structure for different variables in the model, which is not applicable in the other cointegration methods (Rahman & Islam, 2020).

Table 3 Results and discussion

Short run effect of budget finance on economic growth

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	-0.78723	0.134689	-5.84481	0.0002
GDP(-2)	0.227592	0.114568	1.986523	0.0782
GDP(-3)	-0.53295	0.106343	-5.01163	0.0007
GDP(-4)	1.439121	0.108361	13.28086	0
CAPEXP	8.028464	0.697614	11.50846	0
CAPEXP(-1)	-3.66917	0.762679	-4.8109	0.001
CAPEXP(-2)	2.690922	1.039505	2.588657	0.0293
CAPEXP(-3)	-4.90185	1.121955	-4.36903	0.0018
DEBT	-0.89907	0.156251	-5.75404	0.0003
DEBT(-1)	0.707252	0.259351	2.727011	0.0233
DEBT(-2)	-1.77816	0.311027	-5.71708	0.0003

DEBT(-3)	2.397611	0.348666	6.876521	0.0001
DEBT(-4)	-0.48072	0.216463	-2.22077	0.0535
RECUEXP	1.635734	0.637317	2.566594	0.0304
RECUEXP(-1)	7.575353	0.988645	7.662356	0
RECUEXP(-2)	7.681977	0.924547	8.308909	0
RECUEXP(-3)	9.610967	0.974921	9.858199	0
C	965.9854	319.9131	3.019524	0.0145
R-squared	0.999966	Mean dependent var		50307.03
Adjusted R-squared	0.999902	S.D. dependent var		48127.36
S.E. of regression	476.7662	Akaike info criterion		15.40665
Sum squared resid	2045754	Schwarz criterion		16.27054
Log likelihood	-189.99	Hannan-Quinn criter.		15.66353
F-statistic	15584.14	Durbin-Watson stat		1.765251
Prob(F-statistic)	0			

Table 1

Based on the above short run results using Autoregressive Distributed Lag (ARDL), recurrent government expenditure has a t-statistics of 2.566594with a positive coefficient of 1.635734and a P-value of 0.00 which is less than 5% level of significance. This indicates that recurrent government has significant positive relationship with the dependent variable that is GDP on Nigeria economy in the short run. Moreover, capital government expenditure having a value of t-

statistic 11.50846 with a positive coefficient of 8.028464 and a P-value of 0 which is less than 5% level of significance. This mean that capital expenditure defines the dependent variable in a good way and that there is a positive relationship with the dependent variable that is GDP. Another independent variable DEBT having a value of t-statistic -5.75404with a negative coefficient of -0.48072and a P-value of 0.028 which is less than 5% of the level of significance. This makes us to understand that DEBT has a negative relationship with the dependent variable. That is, 1 % increase in the level of borrowing will lead to -0.48072in the growth of the Nigeria economy.

Moreover, the R-squared value of 0.999966 ad the Adjusted R-squared value of 0.999902 measured the fitness of the model.

Long run effect of budget finance on economic growth

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAPEXP	3.287622	2.423892	1.35634	0.208
DEBT	-0.08124	0.168559	-0.48197	0.6413
RECUEXP	40.55885	0.899565	45.08718	0
C	1478.238	485.5867	3.04423	0.0139
EC = GDP - (3.2876*CAPEXP -0.0812*DEBT + 40.5589*RECUEXP +				
1478.2376)				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	

F-statistic	82.87149	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.50%	3.15	4.08
		1%	3.65	4.66

Table 2

Based on the above long run results using Autoregressive Distributed Lag (ARDL), recurrent government expenditure has a t-statistics of 45.08718with a positive coefficient of 40.55885and a P-value of 0.00 which is less than 5% level of significance. This indicates that recurrent government has significant positive relationship with the dependent variable that is GDP on Nigeria economy in the long run. Moreover, capital government expenditure having a value of t-statistic 1.35634 with a positive coefficient of 3.287622, and a P-value of 0.208 which is greater than 5% level of significance. This mean that capital expenditure defines the dependent variable in a good way and that there is a positive relationship with the dependent variable that is GDP in the long run. Another independent variable DEBT having a value of t-statistic -0.48197with a negative coefficient of -0.08124and a P-value of 0.6413 which is greater than 5% of the level of significance. This makes us to understand that DEBT has a negative relationship with the dependent variable. That is, 1 % increase in the level of borrowing will lead to -0.48197in the growth of the Nigeria economy.

ARDL bounds test of co-integration

The bounds test procedure is based on the F-test for investigating the presence of long-run linkage between the examined variables and it test for the joint significance of lagged level variables involved in the model. For the F-test, the selection of maximum lag length is very important. The observations in the study are annual and sample size is 27 with 8 parameters. For such a small sample size as suggested by Pesaran et al. (2001), the study selected a maximum lag length of 4. The estimated bounds and F-test results are summarised in above table 2. Based on the results in Table 2, the computed F-statistic value of 82.87149 is greater than the upper bound critical value of 4.6 at 1% significance level describing that there exists a unique cointegration relationship between economic growth and other dependent variables. This suggests that these variables co-move in the long-run and any short-run deviation in their relationships would return to equilibrium in the long-run.

Conclusion and recommendations

The main purpose of this study was to determine the effect of budget finance on economic growth in Nigeria for the period of 1991-2021. Using the data retrieved from the Central Bank of

Nigeria Statistical Bulletin 2021, the study employed the ex post facto research design. The E-Views 10 statistical software was employed to carry out multiple the Autoregressive Distributed Lag (ARDL) approach to co-integration proposed by Pesaran et al. (2001) to empirically analyse the long- and short-run effect of budget finance on economic growth in Nigeria. The results of the study showed that government capital expenditures during the period had negative and non – significanteffects on Nigeria's real gross domestic product but recurrent expenditure and debt shows that there is positive and significant relationship with Nigeria's real gross domestic product. These results suggest that there should be proper monitoring in the capital expenditure project in order to contribute positive to the economic growth in Nigeria. The study recommends that government should improve in their capital expenditure for increase in the growth of the economics. In addition, the government should ensure adequate capital and recurrent expenditure implementation in the country, particularly in construction of roads and buildings, and efficient capital budget implementation in the country. Moreover, is it advisable for government to reduce the level of borrowings because if continues it will lead to debts of the country. Future studies can be centered on assessing how the established linkages can be complemented with other policy variables so as to engender positive outcomes on economic growth.

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