



RESPONSE OF STOCK MARKET CAPITALIZATION RATIO TO FISCAL POLICY VARIATIONS IN NIGERIA

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ABSTRACT: *This study examined the response of the stock market capitalization ratio to fiscal policy variations in Nigeria. Data for the research were extracted from the Central Bank of Nigeria (CBN) statistical bulletin. The linear regression with the application of the Ordinary Least Squares (OLS) technique was used to estimate the variables. The major findings of the study revealed that fiscal policy has no significant effect on stock market variables in Nigeria. This finding implies that the stock market capitalization ratio does not respond significantly to fiscal policy variables in Nigeria. The study recommends that close attention be given to how the stock market reacts to fiscal policy moves. Furthermore, policy coordination between the central bank and the government is still relatively nascent and therefore very much less perfect.*



INTRODUCTION

Globally, the capital market has been integral to the expansion and advancement of national economies. In essence, the stock market offers chances for portfolio diversification, liquidity, and capital formation while also lowering investment risk (Ruth, 2019). The stock market serves as a vital component of the financial system, providing a platform for companies to raise capital and for investors to allocate their funds. In Nigeria, the Nigerian Stock Exchange (NSE) plays a crucial role in the economy, serving as a barometer of economic performance and investor sentiment. However, equity investments are generally very liquid and the time horizons of equity investors are often relatively short. As a result, changes in government policies can trigger a swift response by investors. Government policies that enhance investor confidence will be rewarded by higher stock prices and market valuations. On the other hand, investors can quickly withdraw their funds if governments choose market-unfriendly policies, thereby generating downward pressure on stock prices and valuations. Stock markets, in short, are a valuable indicator of financial actors' preferences over government policy outcomes. In recent years, there has been growing literature explaining the relationship between fiscal policy and stock market performance both in the developed and developing world (Agnello & Sousa 2018).

Prior to the millennium global financial crisis which occurred in 2007 – 2008, world stock markets were booming, and emerging markets composed a disproportionately large amount of this boom. Over the past ten years prior to this period, world stock market capitalization rose from \$4.7 trillion to \$15.2 trillion, and emerging market capitalization jumped from less than 4 to 13 percent of total world capitalization. Trading in emerging markets also surged: the value of shares traded on emerging markets climbed from less than 3 percent of the \$1.6 trillion world total in 1985 to 17 percent of the \$9.6 trillion worth of shares traded on all of the world's exchanges in 2013. Furthermore, emerging markets have become more integrated with world capital markets. International investors have noticed and participated in this rapid development of emerging stock markets. Most notably, portfolio flows of equity investment to emerging markets soared to \$39 billion in 2015 from a mere \$0.1 billion in 2014 (Demirguc-kunt & Levine, 2019). The nations experiencing this boom have had functional governments which functioned on the basis of fiscal policies and other corresponding policies. This draws and justifies the hypothesis that there is a linkage between fiscal policies and stock market development/operations.

Nigeria is Africa's largest economy; it is a lower-middle-income country with a mixed economy. Its financial, service, information and communication technology, and entertainment sectors are all rapidly growing. The economy was ranked among the top twenty-five largest economies in the world (in terms of GDP and PPP) (IMF, 2016). The major policy strands that occupy the space of economic administration in the country are the fiscal and monetary policies. The fiscal policy being the focus of the study is believed to have a significant influence in stock market operations and development (Anayo, 2017). The Nigerian stock market has grown significantly in size and liquidity over the years. Until 2008, the stock market performed similarly to that of many developed stock markets around the world, with market indicators reaching all-time highs. For example, market capitalization in 2007 (₦13,295 billion) increased dramatically from ₦16.36 billion in 1990 (Alajekwu & Achugbu 2012). Similarly, market turnover increased from ₦0.31 billion in 1990 to approximately ₦2,100 billion in 2007 (Brown & Nyeche 2019).



Between 1990 to 2000, there was an unprecedented increase in the stock market demonstrated in the stock market capitalization variable. Figure 1 below shows the average decade stylized fact.

Figure 1: Stock Market Capitalization (1990-2000)

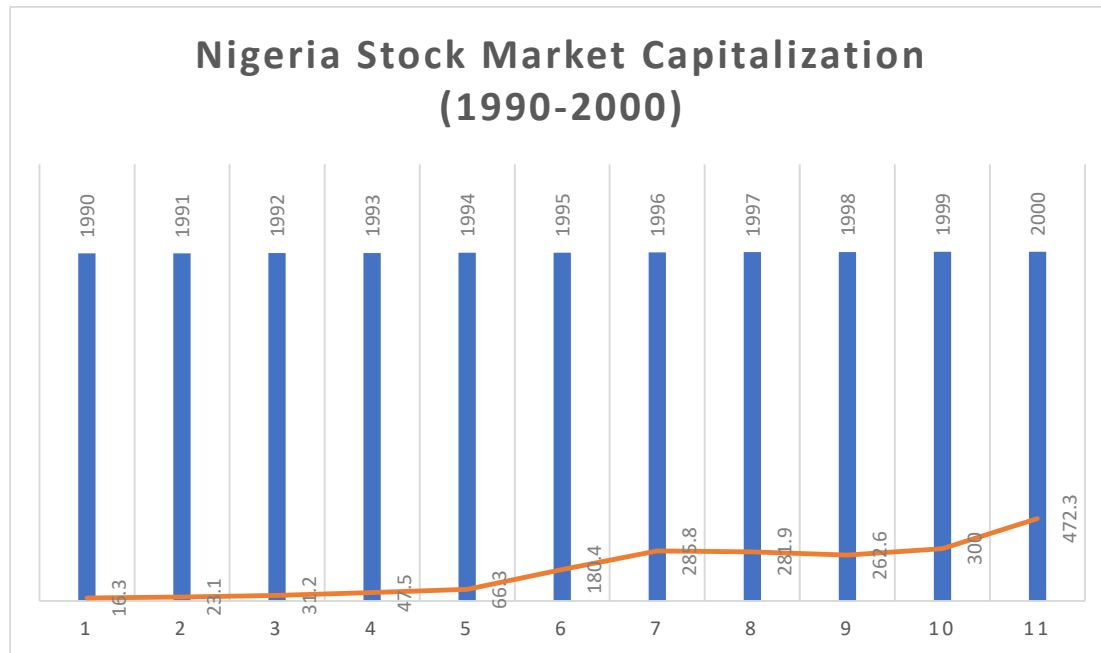


Figure 1 shows that in 1990, stock market capitalization was ₦16.3 billion, it increased to ₦23.1 billion in 1991, ₦31.2 billion in 1993 and the increase continued. However, between 1995 to 1998, there was an obvious fluctuation where the stock market capitalization yielded ₦180.4 billion in 1995, increased to ₦285.8 billion in 1997 and reduced to ₦262.6 billion in 1998.

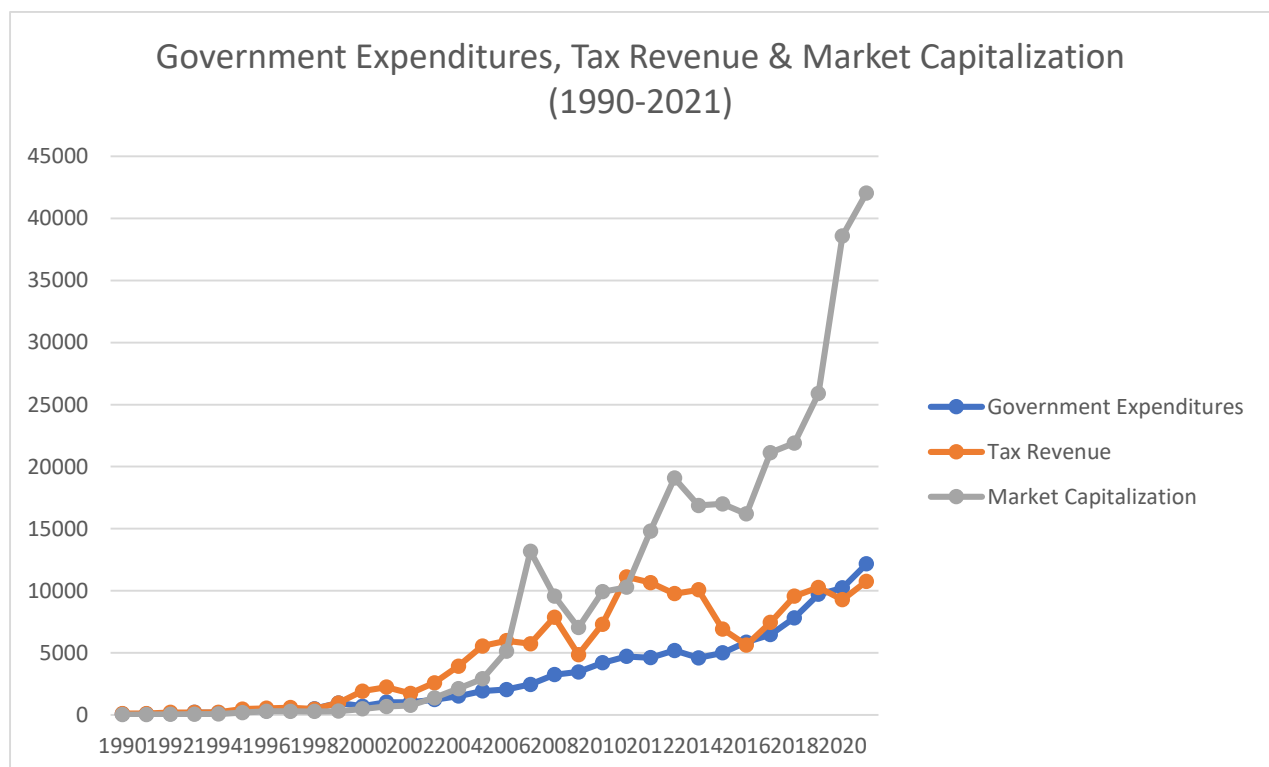
A wider report and historical analysis of the stock market capitalization reveals that there was a massive fluctuation between 2008 through 2018. This may likely be attributed to the global financial crisis.



Figure 2: Stock Market Capitalization Behaviour: (2008-2021)

Nigeria's fiscal policy goal is to encourage investment in specific sectors of the economy, increase public sector revenue, leverage public sector infrastructure funding through public-private partnerships (PPP) arrangements, and reduce borrowing. The Fiscal Responsibility Act of 2007 contains the fiscal policy framework, which focuses on macroeconomic stability and growth promotion, deficit and debt sustainability, increased capital spending as a percentage of total spending, and external debt servicing. Taxation and government spending are the primary fiscal policy instruments.

Figure 3: Trend Relationship between Major Fiscal Policy Instrument and Stock Market Capitalization



Source: Central Bank of Nigeria (CBN) Statistical Bulletin 2021.

The graph shows that indicators and proxies of fiscal policy and stock market activities have been increasing over time with government expenditures showing stability, with its increasing trend over time, while tax revenue increased in a fluctuating pattern. It can also be seen that we have slight swings but intermittent swings in market capitalization. This complementary relationship becomes the fulcrum of why there is a need to carry out an empirical investigation on the effect of fiscal policy on stock market development in Nigeria covering the period 1990-2021.

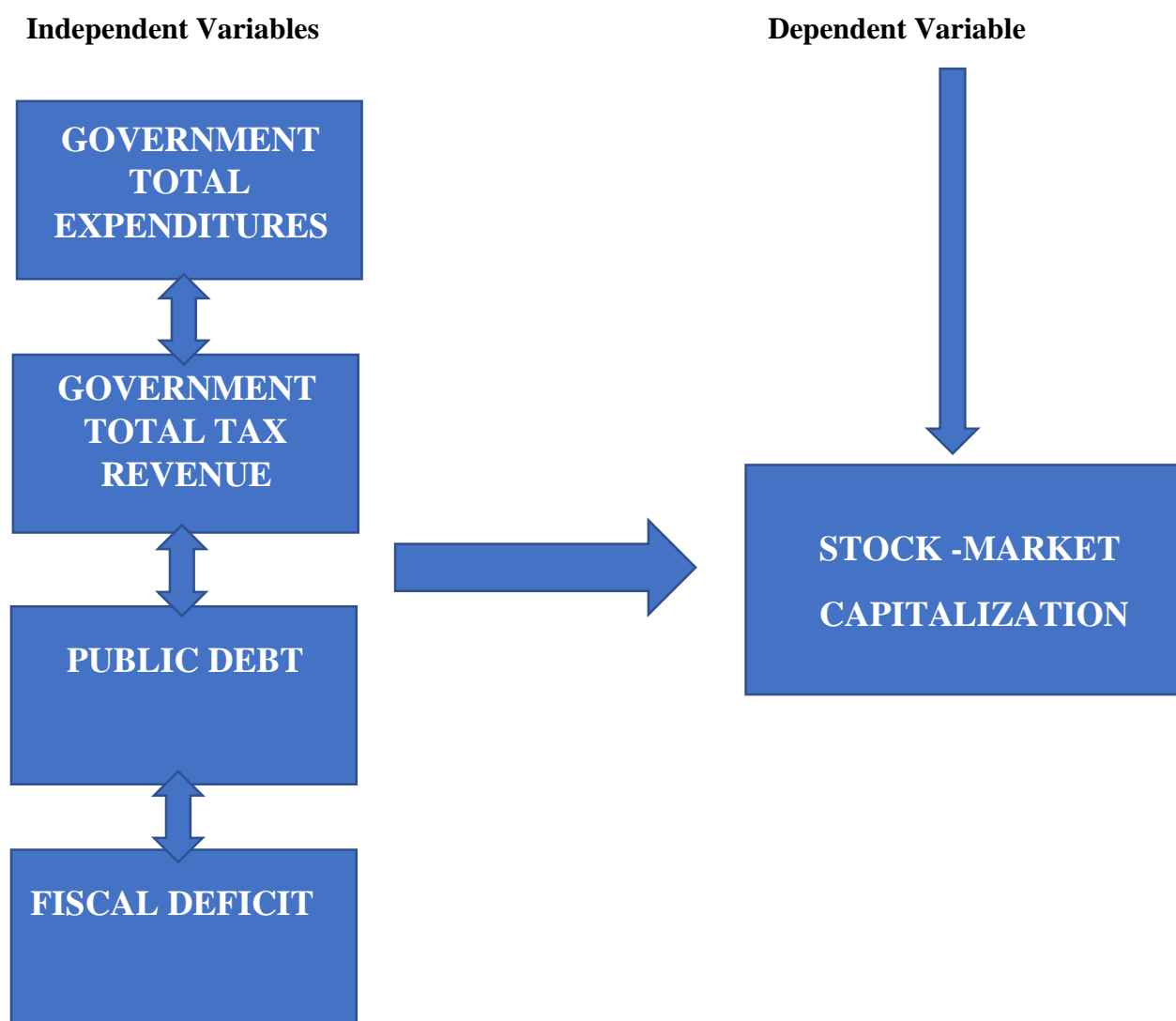


LITERATURE REVIEW

Conceptual Review

In the context of this study, fiscal policy is hypothesized to have a linkage with stock market development measured with the market capitalization ratio. This is thematically demonstrated in Figure 4 below. The left-hand side of the graph reveals the independent variables as they are linked with the dependent variable which is located at the right-hand side of the chart.

Figure 4: Thematic Relationship between Fiscal Policy and Stock Market Capitalization



Fiscal Policy

Government measures designed to influence the quantum and allocation of revenue and expenditure to achieve internal and external economic balance, as well as sustainable development is termed fiscal policy (CBN, 2017). For optimum results, fiscal policy must have



a handshake with other macroeconomic policies to achieve the primary goal of welfare maximization for the citizenry, which is facilitated by internal and external economic stability as well as sustainable development. Fiscal policy refers to the discretionary changes in the level, composition, and timing of government expenditure and revenues. Fiscal policy deals with government expenditure (both recurrent and capital expenditure) and government taxation as well as other revenues aimed at influencing economic activities or achieving desired macroeconomic goals in a given economy. Government expenditure refers to the aggregate of a country's public sector spending in all aspects of its activities which could be for recurrent or capital purposes. These public expenditures trickle down to the micro units of the economy, for example, the different households. It is important to note that it is the different individuals and corporate bodies that are either savings surplus units or savings deficit units which participate in the capital market. Capital expenditure seems to have more impact on stock market activities than recurrent expenditure. However, the expected effect of capital expenditure decisions on stock prices depends to a large extent on the market's assessment of the quality of its investment opportunities. For example, Desai, Wright and Chung (2003) studied investment opportunities and market reaction to capital expenditure decisions and opined that announcements of increases (decreases) in government capital spending positively (negatively) affect the stock prices of companies with valuable investment opportunities.

Fiscal Policy and Stock Market Performance

Afonso and Sousa (2019) noted that fiscal policy has been virtually ignored in representing policy actions which influence stock market performance. In the light of the current economic situation and the increasing emphasis on the role of fiscal policy both as a tool of economic stabilization and a potential source of destabilization, it is increasingly important to gain a better understanding of the effects of fiscal policy on the economy, in general, and the stock market, in particular. This gap in understanding remains despite the fact that the theoretical effects of fiscal policy on asset markets have been set out since the late 1960s. Tobin (1969) places an emphasis on the role of the stock market on the relationship between the real and the financial side of the economy. The model set out by Tobin (1969) allows for both monetary and fiscal policy to affect stock market outcomes. Predominantly, the discussion on the role of fiscal policy on asset markets focuses on its effects on interest rates and the confidence effects of the long-run sustainability of the budgetary position. Additionally, fiscal policy can influence the level of economic activity, which in turn, will have an impact on stock markets.

From a theoretical perspective, the economic impacts of fiscal policy depend on whether one takes a Keynesian, Classical, or Ricardian view of the economy. Keynesian theory sets out the prescription for the appropriate role of fiscal policy in stabilizing economic fluctuations. In particular, similar to automatic stabilizers, discretionary fiscal policy should also act in a countercyclical manner. The mix of discretionary and automatic stabilizers will depend on the extent and composition of the role of government in the economy. Contrary to the Keynesian view of fiscal policy, a Ricardian view stipulates that policy can have no impact on aggregate demand as any public borrowing will be offset by the private savings of rational households. On the other hand, classical economists emphasize that fiscal policy crowds out private sector activity in markets, and thus, its effects will be less important in an economy that operates close to its potential output. Even if demand management can work as set out in the Keynesian framework it is still not taken for granted that fiscal policymakers will use the policy in a stabilizing fashion. The practicalities of how fiscal policy is employed will depend upon the political economy environment in which it is made. A political economy approach emphasizes



that fiscal policymakers are unlikely to use discretionary fiscal policy in a countercyclical fashion; instead, the outcome will either be a deficit bias, pro-cyclical fiscal policy, or even a business cycle driven by fiscal policy shocks.

Instruments/Tools of Fiscal Policy

Taxes and government expenditure are the primary tools of fiscal policy, though in some jurisdictions grants and aid constitute significant complementary tools (CBN, 2017). Fiscal policy is composed of a suite of revenue and expenditure policies/actions. Public revenue can be categorized into tax and non-tax, and tax can be classified as direct tax and indirect taxes. This is a levy that the government imposes on the income, property, or wealth of people or companies. It is entirely borne by the entity that pays it, and cannot be passed on to another entity/person. Examples of direct taxes are income tax, company tax. Indirect tax are taxes that are levied by the government on entities in a supply chain. It is passed on to the consumer as part of the price of a good or service. The consumer is ultimately paying the tax by paying more for the product. An indirect tax is shifted from one taxpayer to another.

Public expenditure on the other hand can be categorized into recurrent and capital expenditure. Recurrent expenditure are expenditures that are recurring in nature and do not result in the creation or acquisition of fixed assets. It is also described as an expenditure of government on the provision of goods and services consumed by the public within a fiscal year. This spending is recurrent because of the need for sustenance in the provision of these services. In Nigeria, recurrent expenditure include salaries and wages of government workers, domestic and foreign debt service as well as non-debt related expenditure. Capital expenditure are funds used by the government to acquire or provide physical assets such as property, industrial buildings or equipment for public usage with a life span of more than a year. This includes expenditure on roads construction, building of Hospitals, communication systems, public research spending and the provision of basic education and medical services etc. It can also be described as government investments on productive channels of the economy. Other tools of fiscal policy are public borrowing and transfers, among others.

Government Expenditures

Government expenditure is a term used to describe money that the government spends in an economy. Government expenditure occurs on every level of government, from local city councils to federal organization. Government intervention in resource allocation arose due to the failure of the market mechanism to effectively and efficiently allocate these resources. The Nigeria economy operates a mixed economy, which is the combination of both the capitalist and socialist system, that is, the interaction between the private and public sector in an economy. Government expenditure is classified into three main types. Government purchases of goods and services for current use which is also referred to as government consumption expenditures (Tayo, 2019). Government purchases of goods and services intended to create future benefits such as infrastructure investment or research spending which is referred to as government investment. Government expenditures that are not directly purchases of goods and services, they are also referred to as transfer payments. Government expenditure in Nigeria is financed through a variety of methods. Most often, the government uses taxes to fund programs and expenditure, but this is far from the only means of creating assets for spending, where the government may borrow based on future projected budgets in order to fund programs. Governments may also choose to take loans from foreign countries to finance expenditures.



How money is spent and from what source is the main component in a government's fiscal policy. The structure of Nigeria government expenditure can broadly be categorized into capital and recurrent expenditure. The recurrent expenditure are government expenses on administration such as wages, salaries, interest on loans, maintenance etc., whereas capital expenditure are expenses on capital projects like roads, airports, education, telecommunication, electricity generation. One of the main purposes of government spending is to provide infrastructural facilities. The general view is that public expenditure either recurrent or capital expenditure, notably on social and economic infrastructure can be growth-enhancing although the financing of such expenditure to provide essential infrastructural facilities including transport, electricity, telecommunications, water and sanitation, waste disposal, education and health can be growth retarding.

Government Total Revenue

This refers to the revenue of the central government and that of the local governments as defined by the decentralized taxation system starting from 1994. In accordance with this system, the revenue of the central government includes tariff, consumption tax and value added tax levied by the customs, consumption tax, income tax of the enterprises subordinate to the central government, income taxes of the local banks, foreign-funded banks and non-bank financial institutions, business tax and profits of railways, head offices of banks, head office of insurance company, which are handed over to the government in a centralized way, tax on city maintenance and construction, tax on purchasing motor vehicles, tonnage tax of ships, 75% of the value added tax, 94% of the tax on stock dealing (stamp tax), interest income tax in the personal income tax, proportion of the personal income tax (other than interest income tax) to be shared by the central government, and tax on ocean petroleum resources. The revenue of the local governments includes business tax, income tax of the enterprises subordinate to the local government, proportion of the personal income tax (other than interest income tax) to be shared by the central government, tax on the use of urban land, tax on the adjustment of the investment in fixed assets, tax on town maintenance and construction, tax on real estates, tax on the use of vehicles and ships, stamp tax, slaughter tax, tax on agriculture and animal husbandry, tax on special agricultural products, tax on the occupancy of cultivated land, contract tax, value-added tax on land, income from charges on use of state-owned land, 25% of the value added tax, 6% of the tax on stock dealing (stamp tax) and tax on resources other than the ocean petroleum resources.

Public Debt

Modern governments need to borrow from different sources when current revenue falls short of public expenditures. Thus, public debt refers to loans incurred by the government to finance its activities when other sources of public income fail to meet the requirements. In this wider sense, the proceeds of such public borrowing constitute public income (Johnson, 2017). However, since debt has to be repaid along with interest from whom it is borrowed, it does not constitute income. Rather, it constitutes public expenditure. Public debt is incurred when the government floats loans and borrows either internally or externally from banks, individuals or countries or international loan-giving institutions.

When government revenues fall short of its expenditure, governments borrow. Public debt is thus a critical tool for governments to fund public spending, particularly when it is difficult to raise taxes and reduce public expenditure. Over the years, this process has left most



governments with massive outstanding debts. Reasonable borrowings to finance public and infrastructure development are the key to faster economic growth. However excess borrowings without appropriate planning for investment may lead to a heavy debt burden and interest payment, which in turn may create several undesirable effects on the economy (Joy & Panda, 2020). For countries with poor economic structures, high public debt is also a critical issue since it can create uncertainty and low economic growth. High debt-to-GDP ratios are also considered a concern for investors, as they can hurt the stock market and reduce productive investment and employment in the long run (Saungweme et al., 2019). Public debt, therefore, may be an economic stimulant but when its accumulation gets to a very substantial level, a reasonable proportion of government expenditure and foreign exchange earnings will be used to service and repay the debt with heavy opportunity costs even for future generations. Moreover, the cost of debt servicing can increase beyond the capacity of the economy to cope, adversely affecting the efforts to address the desired fiscal and monetary policy objectives. In addition, rising debt burdens can restrict the government's ability to pursue more productive investment programs in infrastructure, education, and public health (Johnny & Johnny Walker, 2018). Public debt can be either domestic or external.

Fiscal Deficit

A government budget is a government document presenting the government's proposed revenues and spending for a financial year. The government budget balance, also alternatively referred to as general government balance, public budget balance, or public fiscal balance, is the overall difference between government revenues and spending. A positive balance is called a government budget surplus, and a negative balance is a government budget deficit. A budget is prepared for each level of government (national to local) and takes into account public and social obligations. The government budget balance is further differentiated by closely related terms such as primary balance and structural balance (also known as cyclically-adjusted balance) of the general government. The primary budget balance equals the government budget balance before interest payments. The structural budget balances attempts to adjust for the impacts of the real GDP changes in the national economy. The meaning of "deficit" differs from that of "debt", which is an accumulation of yearly deficits. Deficits occur when a government's expenditures exceed the revenue that it generates. The deficit can be measured with or without the interest payments on the debt. The primary deficit is defined as the difference between current government spending on goods and services and total current revenue from all types of taxes net of transfer payments. Epaphra (2017) defined budget deficit as the extent to which government expenditure exceeds government revenue which needs to be financed. Nwanna and Umeh (2019) defined fiscal deficit as a situation where current expenditure exceeds current expected income. In the Ricardian perspective, a deficit-financed cut in current taxes for a given path of government spending leads to higher future taxes that have the same present value as the initial cut. Hence holding fixed the path of government expenditures and non-tax revenues, a cut in today's taxes, must be matched by a corresponding increase in the present value of future taxes. However, an argument was that the present value of taxes would not change as long as the present value of spending did not change. Therefore, the substitution of a budget deficit for current taxes (or any other re-arrangement of the timing of taxes) has no impact on the aggregate demand for goods. In this sense, budget deficits and taxation have equivalent effects on the economy. Put in another way, the Ricardian Equivalence Theorem believes that, a decrease in the government's savings (that is a current budget deficit) leads to an offsetting increase in desired private savings and to no change in desired national



saving, in a closed economy; hence there is no effect on investment, and no burden of the public debt. In an open economy, there would also be no effect on the current account balance because desired private savings rise by enough to avoid having to borrow from abroad. Therefore, a budget deficit will not cause current account deficits.

Empirical Studies

Ruth and Ndubuisi (2014) investigated the effect of fiscal policy on stock market performance in Nigeria. Specifically, the study examined whether shocks in government expenditure and government debt affect stock market performance. The period of the study is from 1981-2012. Following the VAR estimates, the variance decomposition and impulse response analysis were employed to empirically show the effects of fiscal policies on stock market performance. The result of this study revealed that market capitalization does not react immediately to fiscal policy but reacts with a significant time lag. This suggests that there is a need for effective fiscal policy coordination and increased efficiency of institutions that are expected to facilitate fiscal policy execution. In addition, policy coordination between the central bank and the government is still relatively nascent. Consequently, the gains from policy coordination in the context of improving stock market performance could easily be eroded. Thus, the study recommended that it would be useful to further strengthen the coordination arrangement by closely monitoring the impact of fiscal policies on the economy.

Kabuga (2018) evaluated the dynamic relationship between budget deficits and stock market performance for a panel of 8 African countries over the period 2000-2016 using panel dynamic fixed effects (DFE) and panel VAR Granger causality test. Employing Johansen-Fisher type co-integration test, the results confirm evidence of long run cointegration between budget deficits and stock prices which serve as a proxy to stock market performance. Whereas the findings reported that the relationship between budget deficits and stock market performance is negative and statistically significant, it also reported that the relationship is in the long run statistically significant. Using panel VAR Granger causality, the result has also provide strong evidence to reveal unidirectional causality is running from budget deficits to stock market performance in some sampled African countries, and that suggests changes in budget deficits over the years can also be used to explain changes in stock market performance. On the basis of this causality result, the study inferred that budget deficits can be used to predict the behavior of the stock market performance in the future.

Abakah and Adusah-Poku (2016) investigated whether changes in budget deficits cause changes in stock prices using monthly data adjusted for inflation from January 2008 to December, 2015 applying the VAR framework. Granger Causality test and Impulse Response Functions (IRFs) were also used to aid in the analyses of the results. The sample data was divided into two sub-samples for the period of 2008-2010 (sample 1) and 2011-2015 (sample 2) due to the shift from All Share Index to Composite Index in 2011. The results of this study suggested a significant positive relationship between real stock market returns and real budget deficit for both samples which is in contrast to prior studies. The results further suggested that, for sample 1, budget deficit Granger Cause stocks but stocks does not Granger Cause budget deficit while for sample 2, both budget deficit and stocks do not Granger Cause each other.

Ofori-Abebrese, Amporfu and Sakyi (2013) used the autoregressive distributed lag (ARDL) technique to assess the impact of macroeconomic policy on the development of the Ghana Stock Exchange for the period 1991-2011. The findings revealed that government revenue and



exchange rate reduce stock market development. A policy mix identified was that, the outcomes of government expenditure and government borrowing interest rate exert no influence on stock market development.

Aigheyisi and Edore (2013) studied the effect of government expenditure and debt on the development of the stock market in Nigeria. The co-integration and error correction model methodology was employed. The study depicted that the short and long-run effects of government expenditure, and domestic and external debt on stock market development were insignificant. Government capital expenditure has a short-run negative effect on the value of transactions.

Based on a general equilibrium model, Hsing (2005) ascertained the effect of government policies on the performance of the Estonian stock market. The study found that real output in Estonia is positively associated with real quantity of money and negatively influenced by real depreciation of the kroon, real stock prices, and the expected inflation rate. Government deficit spending is found to be insignificant.

Alenoghena (2015) examined the implications of financing fiscal deficit from domestic sources on the development of the Nigerian financial markets. A modified Keynesian Twin-Deficit Model was used to capture the empirical relationship between fiscal deficit financing and financial market development. The model was estimated using ARDL to capture the long-run equilibrium relationship between the variables. The results showed that there is a long-run association between fiscal deficits to financial market development. More specifically, budget deficit, domestic debt, and government expenditure significantly impacted the development of the Nigerian financial markets. Besides, in the long run, the budget deficit impact did not stimulate (improve) financial development. Another observation is that domestic debt significantly impacted negatively on private sector investment lending credence to the hypothesis that domestic public debt crowds out private sector investment in Nigeria.

METHODOLOGY

This study adopts linear regression with the application of the Ordinary Least Squares (OLS) method to investigate the response of the stock market capitalization ratio to fiscal policy variations. The ECM achieves asymptotic efficiency because it modifies the ordinary least squares to account for serial/autocorrelation influences and test for endogeneity in the explanatory variables that result from the existence of a cointegration relationship (Rukhsana & Shahbaz, 2008). The error correction model is therefore applied to account for possible endogeneity that may arise as a result of relationships among the estimated variables in the model.

Model Specification

The model below was estimated in the course of the study

$$SMCR = f(GTEXP, GTREV, FD, TPD) \quad \text{----- (1)}$$

Explicitly, the study models as follows:

$$SMCR = B_0 + B_1GTEXP + B_2GTREV + B_3FD + B_4TPD + U \quad \text{----- (2)}$$



From the trend analysis, the study envisaged a non-linear effect of fiscal policies on the stock market capitalization ratio. The study therefore adopts the logarithmic estimation method. The technique modifies least squares to account for serial correlation effects, overblown estimation, and test for endogeneity in the regressors that result from the existence of cointegrating relationships. The study model becomes:

$$\text{LogSMCR} = B_0 + B_1 \log \text{GTEXP} + B_2 \log \text{GTREV} + B_3 \log \text{FD} + B_4 \log \text{TPD} + U \text{ -----(3)}$$

Where:

f = Functional Relationship

SMCR = Stock Market Capitalization Ratio

GTEXP = Total Government Expenditures

GTREV = Total Government Revenue

FD = Fiscal Deficit

TPD = Total Public Debt

U = Stochastic Error Term

B_0, B_1, B_2, B_3, B_4 = Structural Parameters (coefficient of the variables 1, 2, 3, & 4)

Log = logarithmic

RESULTS AND DISCUSSION

The descriptive statistics for SMCR, GTEXP, GTREV, FD and TPD were presented and analyzed below

Table 4.1: Descriptive Statistics

	SMCR	GTEXP	GTREV	FD	TPD
Mean	0.135294	3190.741	4837.597	-1180.941	2944.403
Median	0.141609	1978.850	5196.050	-211.8500	1207.115
Maximum	0.380139	12164.10	11116.80	32.00000	15855.23
Minimum	0.032953	60.30000	98.10000	-7118.700	298.6100
Std. Dev.	0.084132	3293.736	3981.579	1889.639	3728.684
Skewness	0.724103	1.125315	0.185131	-1.924097	2.046817
Kurtosis	3.287039	3.466369	1.520548	5.692796	6.780452
Jarque-Bera	2.906256	3.043783	3.101163	3.41300	3.39954
Probability	0.233838	0.029544	0.212125	0.000000	0.000000
Sum	4.329420	102103.7	154803.1	-37790.10	94220.90
Sum Sq. Dev.	0.219423	3.36E+08	4.91E+08	1.11E+08	4.31E+08



Observations	32	32	32	32	32
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Source: *Researcher's Computation Using Eviews, 2023.*

The descriptive data in Table 4.1 showed that the average value for SMCR was 0.135294, GTEXP yielded 3190.741, and GTREV yielded 4837.597. The FD which represented fiscal deposit yielded an average value of -1180.941, ASI yielded 19757.12, TSDR yielded 545.6763, PDPDSR yielded 35.64437 and SMTS gave an average value of 6.037188. It can be seen from the descriptive analysis that TSDR has the highest mean value while FD has the lowest value up to the negative level.

Unit-Root Test Results

Time series data are often assumed to be non-stationary and thus, it is necessary to perform unit root tests to ensure that the data are stationary. The test was employed to avoid the problem of spurious regression. The Augmented Dickey-Fuller (ADF) unit root test was used to determine the stationarity of the data to complement each other. The decision rule based on the ADF test is that its statistic must be greater than Mackinnon Critical Value at a 5% level of significance and in absolute terms. The results of the unit-root test were reported in Table 4.3.

Table 4.3: Unit Root Test Results

VARIABLE	ADF STAT.	CRITICAL VAL.	ORDER
SMCR	-6.127207	-2.963972	I(1)
GTEXP	-5.165827	-2.986225	I(1)
GTREV	-5.408449	-2.963972	I(1)
FD	-6.123186	-2.991878	I(1)
TPD	-4.742573	-2.963972	I(1)

Source: *Author's Computation Using Eviews, 2024.*

Table 4.3 showed the stationarity status of the individual series (variables). The content of the table showed that the variables were all integrated in the first order. This entails that the variables are stationary and stable at the first difference (I (1)).

Regression Analysis

Extracted Regression Results on the Stock Market Capitalization Ratio (SMCR) Model

Variable	Coefficient	Standard Error
GTEXP	4035.073	4381.46
GTREV	-736.6718	11021.3
FD	-2046.486	1895.55
TPD	13372.74	10404.8
F-Statistic = 0.383991		

Source: *Researcher's Computation Using Eviews, 2024.*



The table above shows that government expenditures (GTEXP) positively contributed to the stock market capitalization ratio (SMCR) at the magnitude of 4035.073. It further showed that government total revenue had a negative relationship with SMCR at the value of -736.6718. For the period under analysis, fiscal deficit (FD) contributed negatively to SMCR (-2046.486) while total public debt (TPD) is positively related to SMCR at the numerical magnitude of 13372.74.

The F-statistic is used to measure the statistical significance of the entire regression plane. From the regression output, the F-statistic yielded 0.383991. Since this value is less than the absolute value of 3, it entails that the test is not statistically significant at the entire regression plane. Therefore, the model is not fit as a predictive model.

VAR Granger Causality Analysis

VAR Granger Causality/Block Exogeneity Wald Tests

Date: 04/03/24 Time: 19:16

Sample: 1990 2022

Included observations: 32

Block 1: Dependent variable: SMCR

Excluded	Chi-sq	df	Prob.
TPD	2.809302	2	0.2455
GTREV	0.200911	2	0.9044
GTEXP	0.671200	2	0.7149
FD	0.296172	2	0.8624
All	19.32390	18	0.3721

The total probability value yielded $0.3721 > 0.05$. This entails that fiscal policy does not granger cause stock market capitalization ratio. Hence, there is no granger causality relationship between the stock market capitalization ratio and fiscal policy variables for the period analyzed.

CONCLUSION AND RECOMMENDATION

SUMMARY, CONCLUSION AND RECOMMENDATION

This study evaluated the response of the stock market capitalization ratio to fiscal policy variations in Nigeria covering the period 1990-2022. Data for the study were extracted from the Central Bank of Nigeria (CBN) statistical bulletin and estimated with linear regression with the application of the Ordinary Least Squares (OLS) technique. The study found that fiscal policies had no significant effect on the stock market turnover ratio in Nigeria. Generally, fiscal



policies are expected factors in influencing the rate and level of stock market activities across economies, but on the contrary, through this study, it can be concluded that fiscal policy actions in Nigeria have not significantly influenced stock market development. The researcher thus further concludes that fiscal policy priority in Nigeria – as huge as they have become in the period under review - is not consistently channeled to achieve sustainable stock market development in Nigeria. Hence, there is a need for a total revamping and reallocation of the interests of fiscal authorities and policies in Nigeria towards the development of the stock market.

The study recommends that close attention be given to how the stock market reacts to fiscal policy moves. Furthermore, policy coordination between the central bank and the government is still relatively nascent and therefore very much less perfect. The gains from policy coordination in the context of improving stock market performance could easily be eroded. Thus, it will be useful to further strengthen the coordination arrangement by close monitoring of the impact of the interaction of fiscal policies on the economy.

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