

## NEXUS BETWEEN FISCAL POLICY MECHANISM AND STOCK MARKET OUTPUT IN A GROWING ECONOMY

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**Abstract:** Fiscal policy methods are critical to a country's economic stability. However, when fiscal policy changes occur, all economic sectors react either favorably or adversely. The stock market is not spared from this reaction because it is likewise an important aspect of the economy. From 1998 through 2020, the inquiry looks at the link between fiscal policy mechanisms and stock market performance. The Levin, Lin, and Chu test is used to determine data stationarity. At zero latency, all factors remain constant. Other screening tools employed indicate that all datasets and models utilized in this work are of satisfactory quality. Pearson Product Moment Correlation (PPMC) is a statistical method used to investigate the link between fiscal policy plans and stock market results. Correlation coefficients quantify the strength of a link between two variables. The study's findings indicate that fiscal measures such as tax income, domestic borrowing, government capital, and regular expenditure have a substantial and extremely strong positive relationship with Nigerian stock market returns. The study also indicates that foreign borrowing is harmful to Nigeria's stock market advancement. Other data indicate that foreign borrowing has a modest to very weak link with other fiscal policy methods when compared to the outcomes of the other instruments. As a result, the report recommends increased tax income collection and a significant reduction in the country's foreign debt.

**Keywords:** Fiscal policy, tax revenue, government expenditure, debt, stock market returns.

### 1. Introduction

Macroeconomic swings are often unpredictable, and every government is required to adjust its fiscal policy accordingly when they occur. Fiscal policy refers to the government's financial instruments for directing the economy in order to avoid unstable economic scenarios that might destabilize government budget execution

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Omodero, C.O., (2023)

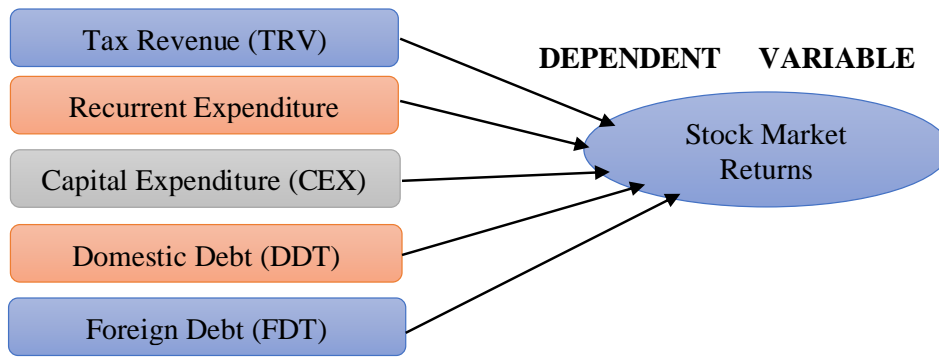
*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

and to guarantee that both public and private sector enterprises are in balance. Fiscal policy has been regarded as the exploitation of public finances through the tax structure, public spending, and debt management in order to accomplish predefined macroeconomic goals (Asaju et al., 2014). Fiscal policy is defined as the component of government policy involved with the use of taxation, public expenditure, and other financial programs included in the yearly budget and determining how best to use the gathered income to achieve national objectives (Ozoh et al., 2016). According to Lopez et al. (2010), fiscal policy is critical for allocating resources in order to maintain an equilibrium between society's three key assets: human capital, physical capital, and natural capital. They argued that the concentration or exhaustion of these resources is determined by the favorable circumstances of tax policies and the funds devoted by spending policies. This is due to the fact that government spending accounts for more than 30% of GDP (GDP). Lopez et al. (2010) believe that fiscal policy is a potent tool capable of influencing a country's asset-building and productivity expansion. As a result, when the government modifies fiscal policy, practically every sector of the economy, including the stock market, reacts favorably or adversely.

Fiscal policy is required for a country to achieve macroeconomic stability (Central Bank of Nigeri (CBN, 2017). The use of government tax collection and expenditure as a strategy to affect an economy is known as fiscal policy (Gregory, 2014; Taylor, 2017). Fiscal policy can be either stimulative or restrictive. It is expansionary when government expenditure grows or taxes are reduced. On the contrary, fiscal policy is contractionary when there is a rise in taxation or a fall in government expenditure. The expansionary fiscal policy allows the government to stimulate the economy when business output is generally slowing, i.e. during an economic downturn. During an economic boom, the government uses contractionary fiscal policy to keep inflation under control (Taylor, 2017). Thus, the government uses fiscal policy to enhance aggregate demand by stabilizing taxes and increasing spending.

A variety of macroeconomic factors, including fiscal and monetary policy, influence stock market volatility (Omodero, 2020). The stock market is a facet of the economy that reflects economic developments on the prices of shares of companies listed on the stock exchange. The effects of economic factors volatility on business shares influence investors' decisions, as well as stock market outcomes. If investors make a favorable decision, stock market returns will rise; if they make a bad decision, stock market returns will fall. As a result, fiscal policy is a vital government policy apparatus that must be properly defined by the competent authorities. The purpose of this research is to examine the impact of Nigeria's fiscal policy instruments on stock market productivity. Figure 1 depicts the purpose of this research as well as the many fiscal measures used by the Nigerian government to manage economic activity.

**INDEPENDENT VARIABLES**



**Figure 1. Conceptual framework diagrammatical presentation.**

Source: Research Output, 2022.

CBN (2017) defines tax revenue as a financial charge or levy placed on taxpayers, people, or legal companies by the government to collect revenues to finance its programs and expenditures. Tax evasion is a crime in Nigeria that is penalized by law. Taxation includes both direct and indirect taxes. Income tax and corporation tax are two types of direct taxes levied on the earnings of businesses and people. Indirect taxes are charges levied by the government on entities in a supply chain. It is passed on to customers as part of the cost of a product or service. A consumer will always pay extra for goods (CBN, 2017). It may be viewed as one indicator of the extent to which the government controls the economy's resources (OECD, 2018).

Capital expenditure is defined as government investments in productive economic channels (CBN, 2017). When funds are used by the government to purchase or provide physical assets such as property, industrial buildings, or equipment for public use with a life span of more than a year, this is referred to as capital expenditure. This includes expenditures on road development, hospital construction, communication networks, public research, and the provision of basic education and medical services, among other things. Recurrent expenditures are regular public spending that do not result in the production or procurement of fixed assets. It is also referred to as government spending on the supply of goods and services to the public within a fiscal year (CBN, 2018). In other words, they are normal government expenditures since they are commitments or responsibilities that the government must fulfill on a regular basis.

DDT refers to the part of a country's debt that is obtained inside the country's borders and geographical region (Abula & Mordecai, 2016; Ozurumba & Kanu, 2014). Local

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

debt in Nigeria is received through the Central Bank of Nigeria, deposit money banks, discount houses, and other non-financial organizations. Treasury bills, treasury bonds, treasury certificates, federal government development stocks, FGN bonds, and promissory notes are other financial instruments used by the government to obtain credit from the country. Foreign debt is part of a nation's debt that comes from outside sources, such as the Paris Club, the London Club, and other foreign corporations, governments, and financial organizations (Abula et al., 2016; Amone et al., 2005). Therefore, Domestic debt is federal government debt represented in national currency (Oshadami, 2006). Foreign debt governance is a plan put in place to guarantee that the country's debt portfolio does not reach the level that it can no longer handle properly and that the terms and circumstances of servicing the debt are not unduly burdensome. As a result, foreign debt administration must include a method to guarantee that a country's external debt stock and service do not cause economic upheavals (Ijirshar et al., 2016).

A stock market index measures the peaks and troughs of a certain group of equities or other assets. The functioning of a market index gives a rapid snapshot of the stock market's health, leads financial institutions in the construction of index funds and exchange-traded funds (ETFs), and allows you to measure the performance of your assets. All share index is a set of statistics that reflects the changing average value of all firms' share prices on a stock exchange and is used to gauge how well a market is operating.

## 2. Literature review

Zagler and Durnecker (2003) conducted an examination of the literature on fiscal policy and economic development. The study provided a cohesive framework for analyzing the long-run growth consequences of government spending and tax collections. The analysis discovered that many tax rates and spending categories had a direct influence on the economy's growth rate. Rad (2011) used an Unrestricted Vector Autoregressive (VAR) model to evaluate the connection between the Tehran Stock Exchange (TSE) price index and a set of three macroeconomic variables from 2001 to 2007. Based on the Impulse Reaction Function (IRF) study, the TSE price index showed a poor response to shocks in macroeconomic factors such as the consumer price index (CPI), free market exchange rate, and liquidity (M2). Furthermore, generalized Forecast Error Variance Decomposition (FEVD) demonstrated that the role of macroeconomic factors in TSE price index swings was around 12%. Finally, it seemed that political shocks or other economic pressures may have an impact on Iran's TSE price index. Khan and Zaman (2012) examined yearly data from 1998 to 2009 for key macroeconomic indicators, including GDP, exports, the consumer price index, the money supply M2, the exchange rate, foreign direct investment, and oil prices. According to the findings, the gross domestic

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

product and the exchange rate have a positive impact on stock prices, but the consumer price index has a negative impact on stock prices. Export, money supply M2, foreign direct investment, and oil prices all produced minor results.

Foresti and Napolitano (2017) investigated the impact of fiscal measures on stock market indices in 11 Eurozone nations using a panel approach. The findings revealed that fiscal policies impacted the stock market and that as the public deficit increased (decreased), stock market indices fell (rose). Nonetheless, additional examination revealed that the signals of the projected stock market reactions were not consistent over time and varied according to the prevailing macroeconomic circumstances. Belov (2018) investigated the economic effects of government financial assets in Russia. The data revealed that provincial and district spending plan allocations were tightly linked to regional tax collections. Bykov and Zimmermann (2018) investigated tax spending as a source of conflict in intergovernmental interactions. The findings demonstrated tax shifting and what it meant in terms of effects. The second and more serious issue was that of tax expenditures in the domain of intergovernmental relations, which occurred as a result of the impact of tax expenditures in the intergovernmental system. The study confirmed that vertical effects of tax expenditures conveyed the impact of tax expenses on budget allocations at varying levels; horizontal externalities best described the impact of fiscal expenditures on budgets at the same level; and, as a result, tax expenditures had a negative impact on redistribution mechanisms.

Fiordelisi and Galloppo (2018) examined stock market reactions to monetary and fiscal policy announcements in 12 stock exchanges throughout the world between 1 June 2007 and 30 June 2012. The article concentrated on stock indexes that covered the whole stock market or specific industries. The study found that stock industry indexes reacted to policy interventions differently than the general stock index by calculating aberrant stock movements around the announcement date. Second, stock returns for general and non-banking sector indices reacted unfavorably to restriction measures; and third, stock reaction to expansionary policies was stronger during the start of the financial crisis. Hu et al. (2018) investigated the impact of Chinese monetary and fiscal policy shocks on stock markets, as well as the interplay of the two policies. The analysis found that, when focusing on the concurrent connection, Chinese fiscal policy had strong, negative simultaneous correlations with stock market performance, but the influence of monetary policy on stock market performance differed depending on the fiscal policy. Second, in terms of lagged factors, both Chinese monetary and fiscal policy had a strong and direct beneficial influence on stock market efficiency. Meanwhile, the relationship between the two strategies was crucial in understanding the evolution of stock markets.

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

Loukianova et al. (2019) hypothesized that the combination of fiscal and monetary policies would have a synergistic impact on economic growth and that, at certain times, one of these policies would triumph over the other. This proposition was investigated using an IS-LM model, which was used to examine the combined impact of monetary and fiscal policy on economic activity in Belarus. It was discovered that independent consumption is equivalent to the Belarusian subsistence minimal budget. The average proportion of government expenditure in the GDP structure was 35.01 percent. The assessment of gross savings and investment revealed that gross savings inconsequentially outpaced investment in the most of years, implying that money was utilized for consumer loans rather than development. Celebi and Honig (2019) evaluated the influence of macroeconomic conditions, German government bond rates, sentiment, and other leading indicators on the DAX30, the primary German stock index, from 1991 to 2018. The research discovered that across most subsamples, the Composite Leading Indicator (OECD), the Institute for Economic Research (ifo) Export Expectations index, the ifo Export Climate index, exports, the Consumer Price Index CPI, and 3-year German government bond yields have delayed effects on stock returns. The study further disclosed that the deferred influence of the monetary aggregate M2 components on stock returns shifted between the crisis and post-crisis eras. The overall findings showed that during the crisis period, a greater variety of variables and economic indicators had a substantial influence on stock returns than during the pre-and post-crisis eras.

Qureshi et al. (2019) investigated the connection between bond fund flows, stock market performance, and financial policies in developed and emerging nations. In the context of fiscal and monetary policy in developed nations, the findings revealed a bidirectional (negative) link between bond flows and market returns. In the case of emerging nations, bond flows, on the other hand, followed the prior performance of market returns. Furthermore, an expansionary monetary policy had a negative impact on bond flows, whilst an expansionary fiscal policy had a favorable impact on them. Furthermore, bond funds thrive during periods of low economic output in both industrialized and developing economies. Wang and Guo (2019) selected the sample stock index earnings rate of G20 members; used the DCC-MGARCH analysis to explore the stock market price movements co-movement of China and other G20 members between January 1, 2015, and March 31, 2018; and used the two-way fixed effects approach to evaluate the key determinants of stock market co-movement framework such as international economic integration between China and other G20 members, numerous components of China's domestic basics, and stock market development. The data demonstrated that China's co-movement with the other G20 countries' performance and affecting variables altered over time.

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

The paper by Sodnomova and Leontyeva (2019) sought to investigate Soviet fiscal policy and its influence on the country's economic development from 1926 to 1940. The study employed a historical and logical approach to investigating the efficiency of two taxation instruments – the turnover tax and tax charges on profits – and their involvement in the Soviet economy's spectacular achievements. The primary indices of economic development and tax collection were considered in the study from 1926 to 1940. The research validated the notion that the turnover tax and profit tax, together with price control and a planned economy, resulted in the establishment of a cost-effective economic model in the USSR. Gopinathan and Durai (2019) examined the long-run link between the stock market and macroeconomic indicators using monthly data from India from April 1994 to July 2018. According to the empirical data, traditional co-integration tests failed to reveal any link between these variables. However, using the alternating conditional expectations approach to extract the true functional connection between these variables, the research found substantial evidence of co-integration and nonlinearity in the long-term relationship. Furthermore, the continuous partial wavelet coherency model found high coherency at a lower frequency for the modified variables, indicating that the long-run link between stock prices and macroeconomic indicators in India was nonlinear and time-varying.

Todorov and Durova (2020) used quarterly seasonally adjusted Eurostat data from 1999 to 2019, the Hodrick–Prescott filter, and a vector auto-regression (VAR) to discover that the Bulgarian government's budgetary decision was stimulative and that automated fiscal absorbers were ineffective. The research determined that both sides of the Bulgarian state budget (income and spending) needed to be addressed in order for Bulgaria's fiscal strategy to be more effective. From 1998 to 2018, Omodero (2020) researched the significance of fiscal factors in predicting capital market efficiency in Nigeria. According to the regression analysis results, the exchange rate and inflation rate had negligible negative effects on capital market capitalization (CMC), however, the interest rate had a detrimental impact on CMC. The study also found that the gross domestic product (GDP) had a considerable favorable influence on CMC.

Nabieu et al. (2021) used a dataset of 43 Sub-Saharan African nations spanning 27 years to give empirical evidence on the effects of fiscal laws on fiscal performance and economic growth. The study used simultaneous equation models to investigate the link between government sector development and success while also avoiding structural equation and endogeneity biases. The findings revealed that fiscal restrictions greatly improve fiscal performance while slowing growth. The study also found that investment controls had the greatest influence on macroeconomic stability and income development. Stoilova and Todorov (2021) used a vector auto-

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

regression and yearly Eurostat data to evaluate the influence of three fiscal instruments on Central and Eastern European economic growth from 2007 to 2019. According to the empirical findings, direct tax collection had a negative impact on the real output growth rate in the ten new European Union member countries, but economic growth in the Eurozone, exports, and gross capital creation had a positive impact on economic growth. The findings also indicated that government consumption and indirect tax collection had no substantial influence on the growth rate of real production in the 10 Central and Eastern European nations investigated. Sawyer and Passarella (2021) gave a thorough analysis of fiscal and monetary policies with various types of government spending, including a job guarantee scheme. The data demonstrated that expansionary fiscal policies were effective in reflating the economy regardless of how they were supported. Second, in the near run, expansionary monetary policies were reflationary. Third, lowering the reserve requirement might re-ignite the economy. Fourth, non-selective tax cuts worked. However, it is less effective than government expenditure. Fifth, the influence on the price level was more difficult to forecast than the impact on output. Sixth, in terms of GDP growth and inflation, conventional expenditure outperforms job guarantee plan rate control, but in terms of employment and income distribution, the job guarantee plan is a better alternative. Between 1980 and 2017, Monamodi and Choga (2021) evaluated the influence of fiscal and monetary policies on wealth creation in (SACU) economies. In this work, the Panel auto regression distributed lags (PARDLs) estimate approach and the Pooled mean group (PMG) estimator were used. The findings suggested that these measures had a substantial long-run impact on economic growth across SACU economies. However, fiscal policy was only meaningful when funding, rather than government revenue, was utilized as the functional policy tool. These macroeconomic interventions have varied short-run consequences. According to the Granger causality results, the direction of co-integration was from the government, real interest rate, inflation, and official exchange rate to productivity expansion.

Ismail and Sek (2021) evaluated the impact of fiscal vs monetary policy on GDP growth. The research was based on time series data from 1981Q1 to 2018Q1. According to the findings, the GDP lag two-term was a transition parameter of AR (1) and had a significant influence on economic growth. When policies are compared, monetary policy with a real effective exchange rate was capable of increasing growth, but fiscal policy with government expenditure, government debt, and current mismatches unable to promote higher Productivity growth. The study revealed that, when compared to fiscal policy, monetary policy via exchange rate was more successful in promoting growth. Beckmann and Czudaj (2021) used Italian data to compare alternative patterns of fiscal policy uncertainty (FPU) for the German economy. The influence of Germany's 'debt brake' on the FPU. The study



Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

used an impulse response analysis to evaluate the effect of FPU on the real economy, and the results showed that FPU drastically reduced the pace of growth of industrial production. The associated effect was resistant to sensitivity tests and outperformed the impact of a broad measurement of financial shocks.

**3. Methodology and empirical data**

From 1998 through 2020, the study looks at the relationship between fiscal policy and stock market performance in Nigeria. In this work, a quantitative correlational analysis is being carried out. According to Cohen et al. (2007), a correlational study entails acquiring two sets of data in order to assess the relationship between them. Correlation design is a form of quantitative study in which researchers employ correlation analysis to identify the degree of association between two or more variables. This numerical degree of correlation tells if the two variables are interrelated or if one may foretell the other. Pearson Product Moment Correlation (PPMC) is used to examine the relationship between the specified variables in order to meet the study's goal. Correlation coefficients are used to measure the intensity of a relationship between two variables. The most prevalent type of correlation coefficient is Pearson's correlation coefficient. Pearson's correlation (sometimes known as Pearson's R) is a correlation coefficient used in linear regression.

Because correlation is an effect size, Evans (1996) recommends the following metrics to define its potency: 00 – 19 represents a very weak link; 20 – 39 suggests a weak correlation; 40 – 59 implies a moderate relationship; 60 – 79 signals a strong relationship; and 80 – 100 denotes a very strong relationship.

As a result, the model for this investigation is as follows:

$$ASI = f(CEX, DDT, FDT, REX, TRV) \dots\dots\dots (1)$$

The econometric form is stated as:

$$LOGASI_t = \beta_0 + \beta_1 LOGCEX_t + \beta_2 LOGDDT_t + \beta_3 LOGFDT_t + \beta_4 LOGREX_t + \beta_5 LOGTRV_t + \epsilon_t \dots\dots\dots (2)$$

Where LOG stands for logarithm transformation of data, ASI denotes All Shares Index, CEX connotes Capital Expenditure in Nigeria, DDT symbolizes the government's domestic borrowing, FDT represents Nigeria's external debt stock, REX implies government recurrent expenditure and TRV shows the total tax revenue collected by the government for the periods covered by this study. All data sets have been collected from the Central Bank of Nigeria (CBN) Statistical Bulletin, while the tax revenue data is gathered from the Federal Inland Revenue Service (FIRS)

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

Nigeria.  $\beta_0$  = Constant;  $\beta_1$ - $\beta_5$  = Regression coefficients;  $\epsilon_t$  = Error term. On the a priori, we expect;  $\beta_1 > 0$ ,  $\beta_2 > 0$ ,  $\beta_3 > 0$ ,  $\beta_4 > 0$ ,  $\beta_5 > 0$ .

**Table 1: Variable information and measurement**

Variable	Abbreviation	Data Source	Unit measurement	Transformation type	Years of data coverage
All Share Index	LOGASIt	CBN	NAIRA (₦)	(LOG) Logarithm form	1998-2020
Capital Expenditure of the government	LOGCEXt	CBN	NAIRA (₦)	(LOG) Logarithm form	1998-2020
Domestic debt of the government	LOGDDTt	CBN	NAIRA (₦)	(LOG) Logarithm form	1998-2020
Nigeria's foreign debt	LOGFDTt	CBN	NAIRA (₦)	(LOG) Logarithm form	1998-2020
Government Recurrent Expenditure	LOGREXt	CBN	NAIRA (₦)	(LOG) Logarithm form	1998-2020
Aggregate Tax Revenue on an annual basis	LOGTRVt	FIRS	NAIRA (₦)	(LOG) Logarithm form	1998-2020

Source: Author's data information

#### 4. Empirical results

This section is used to present all the results derived from the data analysis.

The mean values of the variables, as well as the standard deviation, skewness, and kurtosis, are shown in Table 1. The mean reflects the average of the data utilized in the distribution for the purposes of this research, whereas the standard deviation is the measure of the dispersion of a collection of data from its mean. The standard deviation measures how much the data deviate from the mean. According to Table 1, all data for the predictor factors and response variable are closely spaced, demonstrating that the data are clustered around the mean. Skewness is a metric that investigates the degree and direction of deviation from symmetry. In a symmetrical distribution, the mean, median, and mode values are all precisely identical. The mean, median, and mode values are not equal in an imbalanced distribution. There is no skewness when the mean, median, and mode values are all equal. If the skewness is zero, the data are exactly symmetrical, which is highly rare for real-

world data. The basic rule is that the distribution is favorably and nearly skewed if the result of the computation is larger than zero but less than 0.5.

**Table 1: Descriptive statistics**

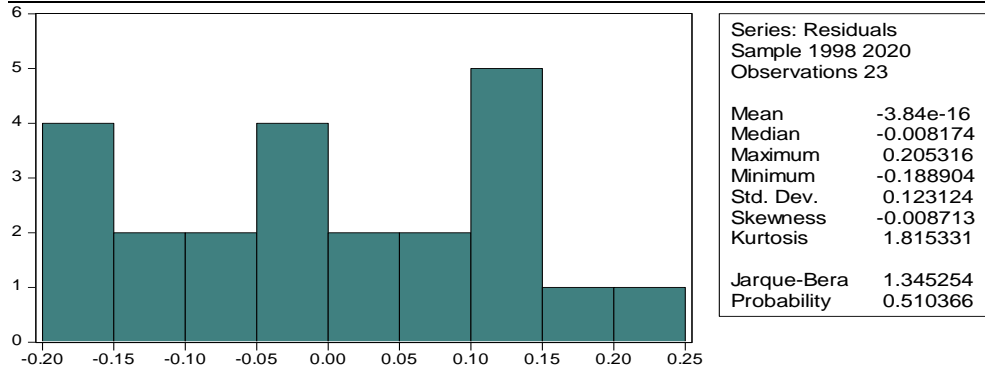
	ASI	CEX	DDT	FDT	REX	TRV
Mean	5.41	2.84	3.52	3.30	3.27	3.12
Median	5.47	2.89	3.50	3.41	3.33	3.22
Maximum	5.78	3.35	4.20	4.10	3.91	3.72
Minimum	4.80	2.37	2.74	2.64	2.25	2.14
Std. Dev.	0.27	0.26	0.46	0.44	0.43	0.45
Skewness	-0.97	-0.09	-0.02	-0.02	-0.57	-0.55
Kurtosis	2.97	2.22	1.58	1.84	2.54	2.28
Jarque-Bera	3.66	0.61	1.92	1.28	1.47	1.67
Probability	0.15	0.73	0.38	0.53	0.48	0.43
Sum	124.	65.4	81.1	76.0	75.3	71.8
Sum Sq. Dev.	1.69	1.60	4.73	4.32	4.14	4.38
Observations	23	23	23	23	23	23

Author's calculation, 2022

When it is between 0.5 and 1, the distribution is moderately and positively skewed; when it is larger than 1, the distribution is strongly and positively skewed. It is symmetric if it equals zero. When the outcome is less than zero, it is skewed adversely. This study's Skewness result suggests that all data distributions are negatively and moderately skewed. This is also the more reason why the datasets have to go through a logarithm transformation to make them suitable in this analysis. Kurtosis is the anticipated value of the standardized data increased to the fourth power in the same way. A normal distribution's kurtosis is generally 3. If it is smaller than three, the distribution is said to be platykurtic, implying that it yields fewer and less extreme values than the normal distribution. When it exceeds 3, it is considered to be leptokurtic, which implies that it produces more values than the normal distribution. In the case of investors, high kurtosis indicates that there may be severe returns (either positive or negative). For the purposes of this study, the Kurtosis values do not exceed the value of 3. The Jarque-Bera approach is used to guarantee that the datasets are normally distributed when the p-value is greater than 5%. The Jarque-Bera p-values of each variable are above 5%, while collectively as shown in Figure 2, the Jarque-Bera's p-value is 0.51, which is more than 0.05; hence, all data sets are normally allocated.

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*



**Figure 2: Normalcy test**  
Author's calculation, 2022

Table 2 indicates that the model is stable, homoscedastic, and devoid of serial correlation based on the results of the numerous diagnostic tests because their p-values are above a 5% level of significance. In statistics, serial correlation is used to determine the correlation between occurrences of the same variable across time (Durbin & Watson, 1950). If the serial correlation of a variable is 0, there is no connection and each sample is autonomous of the others. If the serial correlation of a variable skews toward one, the observations are serially correlated, and future observations are influenced by past values (Durbin & Watson, 1951). In essence, a serially linked variable has a structure and is not stochastic. Homoskedasticity (sometimes spelled "homoscedasticity") is a phenomenon in which the variation of the leftover (or error term) in a regression model is constant (Gujarati & Porter, 2009). That is, while the value of the predictor variable varies, the error term does not change much.

**Table 2: Analytical Checks**

TYPE DIAGNOSTIC TESTS	P-VALUE
Ramsey RESET Test for Stability	0.53
Breusch-Godfrey Serial Correlation LM Test	0.06
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.54
Histogram Normality Test: Jarque-Bera	0.51

Author's calculation, 2022

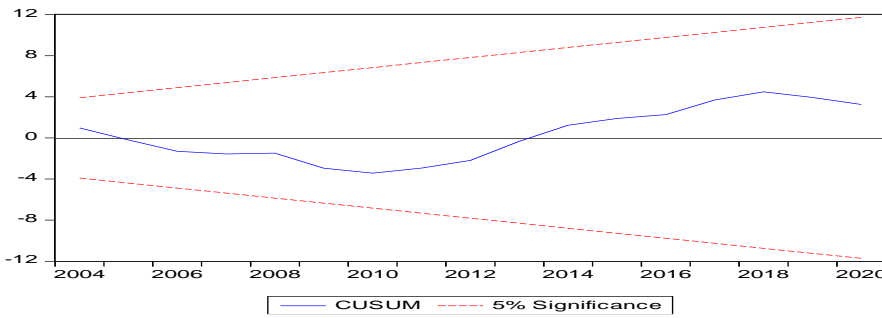
Table 3 shows a summary of the unit root test results for the datasets. The results show that the datasets are stable at order 0, indicating that the model is adequate and that the outcomes obtained in this research are not erroneous.

**Table 3: Unit root test result**

Method	Statistic	Prob.**
Levin, Lin & Chu t*	-2.43486	0.0074

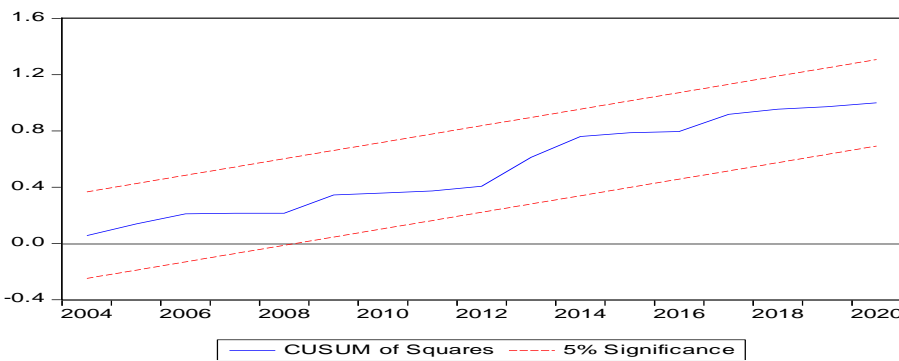
Author's calculation, 2022

The CUSUM test in Figure 3 and the CUSUM of squares in Figure 4 are both used to verify the stability and dependability of models. The presence of a blue line in the center of two dotted red lines that does not cross the 5 percent borders indicates that the model is stable and dependable. As a result, if the blue line surpasses the boundaries of the red dotted lines, it is determined that the model is unstable and cannot be depended on. As a result of using the incorrect mathematical framework, the study's conclusions will be deceptive. The blue lines in this analysis are inside the 5% bounds, indicating that the model is reliable.



**Figure 3: CUSUM test**

Author's calculation, 2022



**Figure 4: CUSUM of squares**

Author's calculation, 2022

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

Table 4's correlation matrix provides thorough information on the link that exists between fiscal policy instruments and stock market performance. In this study, the results in Table 4 are utilized to evaluate the research's goal. As a consequence of the findings, capital expenditure (CEX) as a fiscal policy tool has a substantial link with stock market returns (ASI). With a p-value of 0.00 below the 0.05 level of significance, CEX has a 66.8 percent strong and positive association with ASI. Similarly, at the 1% level of significance, recurrent expenditure (REX) has a very significant and positive relationship with ASI. The connection between REX and ASI is 79.7 percent, which is close to 80 percent.

**Table 4: Correlation matrix**

Probability	LOG_ASI	LOG_CEX	LOG_DDT	LOG_FDT	LOG_REX	LOG_TRV
LOG_ASI	1.000000					
LOG_CEX	0.667670	1.000000				
	4.109901	-----				
	0.0005	-----				
LOG_DDT	0.693629	0.845403	1.000000			
	4.412695	7.253146	-----			
	0.0002	0.0000	-----			
LOG_FDT	-0.105619	0.111231	0.316774	1.000000		
	-0.486731	0.512907	1.530457	-----		
	0.6315	0.6134	0.1408	-----		
LOG_REX	0.796702	0.859896	0.967907	0.256616	1.000000	
	6.040881	7.719460	17.64958	1.216705	-----	
	0.0000	0.0000	0.0000	0.2372	-----	
LOG_TRV	0.776963	0.861081	0.961706	0.238712	0.972792	1.000000
	5.655647	7.760522	16.07930	1.126480	19.24163	-----
	0.0000	0.0000	0.0000	0.2727	0.0000	-----

Author's calculation, 2022

Table 4 shows that tax revenue (TRV) has a substantial and positive correlation with ASI at the 1% level of materiality. The correlation score is 77.7 percent, indicating a high association between stock market returns. Domestic debt (DDT) has a substantial and positive link with ASI as well, with a correlation value of 69.4 percent at the 1% level of significance. In contrast, with a correlation value of -10.6 percent and a p-value of 0.63 over the 0.05 level of significance, foreign debt stock

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

(FDT) has an insignificant negative link with ASI. The results agree with the work of (Hu et al., 2018; Qureshi et al., 2019).

The results in Table 4 show that DDT and CEX have a very high link (84.5 percent at a 1 percent significant level), but FDT has a very poor relationship with both CEX and DDT. REX has a substantial association with CEX and DDT, with correlation coefficients of 85.9 percent and 96.7 percent, respectively. The results agree with the findings of (Gopinathan & Durai, 2019; Monamodi & Choga, 2021). The association between REX and FDT, on the other hand, is poor, with a correlational value of 26.6 percent. This is confirmed in a (Rad, 2011) study. TRV, on the other hand, shows a modest positive link with FDT but a very strong and positive relationship with CEX, DDT, and REX, with correlation values of 86.1 percent, 96.1 percent, and 97.3 percent at the 1% level of significance, respectively. The studies of (Monamodi & Choga, 2021) among other is in line with this result.

## 5. Conclusions

From 1998 through 2020, the study looks at the link between fiscal policy and stock market performance in Nigeria. This analysis is robust, demonstrating the association between stock market returns and various fiscal policy instruments during the selected time period. According to the findings of this study, foreign borrowing is detrimental to stock market performance and has a limited relationship with other fiscal policy tools. The policy consequence is that the government is supposed to limit external borrowing due to its negative relationship with stock market output and other fiscal policy measures. It's also worth noting that tax revenue has a very strong and positive link with ASI and other fiscal policy instruments. As a result, the government is urged to strengthen the country's tax administration and revenue-collecting strategies. Furthermore, the two types of government spending are deemed to have a positive and high link with ASI and other fiscal policy instruments such as DDT and TRV but a poor relationship with FDT. As a result, the report recommends that the government be more target-conscious in public expenditure and ensure rigorous monitoring of all capital projects, particularly good infrastructures, in order to increase private-sector investment in equities and government securities.

If the findings of this study are implemented correctly and all proposals are taken into account, they will enhance government budgetary policy. This study is confined to Nigeria due to a lack of data. As a result, the study suggests further research that compares the findings of this study to those of other Sub-Saharan African countries.

Omodero, C.O., (2023)

*Nexus between Fiscal Policy Mechanism and Stock Market Output in a Growing Economy*

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### Author Contributions

The author conceived the study, carried out the literature review and was also responsible for data collection and analysis and also for data interpretation.

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