Debt Servicing and Performance of Nigeria Stock Market

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https://doi.org/10.56201/wjfir.v10.no11.2026.pg.75.92

Abstract
This study examined the effect of debt servicing on stock market performance in Nigeria. The objective was to investigate the effect of debt servicing on stock market performance using stock market indicators. Time series data were sourced from Central Bank of Nigeria Statistical bulletin and publications of Nigeria Bureau of Statistics. Debt servicing was used as independent variable while stock market performance was measured by growth of all share price index, growth of market capitalization, growth of traded equities and growth of stock market size. Four simple regressions were formulated. Ordinary least square methods were used as data analysis model. From model one, the study found that debt servicing has a negative impact on the growth of all share price index with and that 33.1% of the variation in the growth of all share price index was explained by variation in debt servicing. From model two, the study found that debt servicing has a negative impact on the growth of market capitalization and that 34.6% of the variation in growth of market capitalization was traced to debt serving. From model three, the study found that debt servicing has a negative impact on the growth of traded equities and that 23.2% of the variation in growth of traded equities was explained in variation in external debt. From model four, the study found that debt servicing has a negative impact on the growth of stock market size and that 39.1% of the variation in growth of stock market size was traced to debt servicing. The study conclude that debt servicing have negative effect on stock market performance in Nigeria. We recommend that there should be strategies such as restructuring public debt towards external borrowing which is comparably cheaper than domestic debt, and rationalization of recurrent expenditures to contain the widening deficit in the primary balance would be necessary in the medium-term to ensure that public debt remains on a sustainable path to allow for capital markets development.

Keywords: *Debt Servicing, Performance, Domestic Debt, External Debt Nigeria Stock Market*

Introduction

Nigerian Capital market was established in 1960 for the purpose of bridging savings and investment gap and simplifies the sourcing long term fund. It constitute a network of financial institutions and investors interact to mobilize and allocate long term funds to productive investment and funds are exchanged for financial assets issued by borrowers or traded by stock holders which in turn offers access to a variety of financial instruments that enable economic agents to pool, price and exchange risk (Akani & Imegi, 2017). The Nigeria capital market is classified among the emerging financial market of world and one of the fast growing in Africa (Anyamaobi, 2018). The performance of Nigeria capital market can be measured in term of

number of listed companies; number of listed securities; size of the market or market capitalization and all-share price index. According to stock market repots 2019, there are 161 companies quoted on the floor of the exchange, market capitalization of listed domestic companies as percentage of gross domestic products in Nigeria was reported at 9.8 percent in 2019 while all share decreased 1639 points or 6.10 percent since the beginning of 2020. The above shows that the performance of the Nigeria capital market has fluctuated over time. In a deregulated financial market like Nigeria, the performance of the market depends on macroeconomic variables, monetary policy variables and fiscal policies. Stock market performance is a leading indicator used to ascertain the efficiency of the financial sector and the economy in general. In a frontier market such as Nigeria, key indicators of the stock market have performed poorly (Omodero & Dandago, 2018). Osaze (2020), categorically labeled the condition of the capital market in Nigeria as frontier, based on its low transaction, liquidity, depth, breath and introduction of new issues compared to the capital market of other Africa nations (South Africa and Egypt). The total market capitalization and value of traded stock of the Nigerian Exchange Group (NGX) in December 2021 was N42.1trillion and N0.9 trillion respectively, which has portrayed a bearish trend over the past few decades (Central Bank of Nigeria, 2020). Debt servicing, according to Olusegun, Oladipo and Omotayo (2021), is the collection of principal repayments and interest to be paid in currency, goods or services on long term debt and short-term debt. By so doing, the country commits to the repayment terms of principal and interest on an outstanding loan. In the view of, Bahuli and Bala (2020), debt servicing is the amount of money required to make payment on the principal and interest on outstanding loan, the interest on bond or the principal maturity bonds. In other words, debt service is the amount of interest and principal payments due annually on long term debt. In another way, Abubakar, Kayode and Yusuf (2019) defined debt servicing as the ability of a debtor nation to repay the principal (debt) and interest components of outstanding loan in installment and as when due. Abubakar, et al (2019) actually introduced a new element different from that of Olusegun, et al (2021), which is “ability”. When an indebted nation is unable to honour the terms of loan repayment, then the ability to service such a debt is lacking. In essence, if a debt has helped a country grow and accumulate sufficient savings then the ability to pay should not be a concern. In the real sense, the ability to service debt obligations earns the country high on the credit worthiness scale. It means there is the high likelihood of obtaining more loans when they forward request for it. As ideal as honoring a debt repayment obligation is, not all debt servicing translates to mean a good thing.

The payment of installments on loans obtained from domestic and international sources is referred to as debt servicing. According to the terms of the loan, an installment includes interest on the debt as well as a portion of the principal. In other to service debt in time, borrowing nations or corporate organization should have timely cash flows. Timely cash flows is a necessity for a nation or corporate organization to service its debt on time. If a country is unable to honor its debt service terms due to a lack of required funds, it is said to be unable to service its debt (Khatundi, 2020). Debt management decisions contribute a significant role in the strategies of fiscal policies. Debt management decisions are becoming increasingly crucial as part of a financial plan as debt grows its position as the principal way of supporting government demands increases. Given that debt management has such a significant impact on public finance, any attempt to determine the country's financing decision should include appropriate public debt management. Public debt makes new money available for a country to invest in provision of public infrastructure such as schools, hospitals, roads, dams, railways, power stations among

others (Omodero, 2019; Osuka, Chigbu & Lucky (2024). Proper use of public debt leads to some benefits to an economy. For instance, acquisition of government loans provides an opportunity for a country to make capital investments such as purchase of advanced equipment and modernized technologies which are necessary for efficient production of goods and services. Such infrastructures and developmental projects in turn create a lot of opportunities for private investment and employment. Thus, the impact of public debt on economic growth can either be positive or negative depending on whether the debt is efficiently utilized or not. If properly utilized, public debt acts as a lubricant in the economy by providing liquid capital for investment, facilitating employment creation and increasing national output for domestic use as well as for export (Munzara, 2015). According to Tchereni, Sekhampu and Ndovi (2013), government loans help to eliminate economic blockage, allows utilization of all resources to full capacity, which in turn results to sustainable economic development.

Debt servicing obligations cause distortions in an economy and hence discourage investment and economic growth. That means public debt is a complement to domestic savings and investment. Opponents of growing debt exposure contend that public debt depresses capital investment in two ways: through both an impediment consequence and a crowding out influence (Omodero, 2019; Lucky, Akani, & Anyamaobi, (2015). Public investment can also be crowded out by debt servicing, thereby adversely affecting productivity growth. This argument is supported by Fosu (2010), who contends that constraining debt servicing would shift public expenditure away from important social services such as healthcare and education. The government forced to increase internal borrowing in order to meet external debt servicing obligations, in the process government hog borrowings on the domestic market thereby depriving private investors of the much-needed funds for investment. There are many studies on public debt, however most studies focused on public debt servicing and economic growth and public debt and domestic investment. (Deebii & Opuala-Charles, 2022; Hamadou, Nourou, Oumarou & Zakariyaou, 2022; Anoke, Odo & Nnabu, 2021; Omodero, 2019; Chinanuife, Eze & Nwodo, 2018; Akomolafe, Bosede, Emmanuel & Mark, 2015), as predominantly postulated by debt overhang theory. This view puts forth the notion that public debt is undesirable for investment in the economy and affects negative performance of the capital market. (Were & Madete, 2022; Abubakar & Mamman, 2021; Kengdo, Ndeffo & Avom, 2020; Ogunjimi, 2019; Thilanka & Ranjith, 2018; Osuka, Chigbu, & Lucky, (2024). Sánchez-Juárez & García-Almada, 2016), thus, echoing the Keynesian viewMona (2013) opined that apart from public debt, other factors influence private investment. In contrast, some other strand of the literature has maintained that public debt exert a positive. From the above, this study wants to examine the relationship between debt servicing and performance of the capital market in Nigeria.

Literature Review

Conceptual Review

Debt Servicing

Matuka and Asafo (2018) defined external debt crises as the true reflection of the difficulties and strains arising from the servicing of external debt. This may result from inability to generate enough resources to meet commitment in debt servicing. The burden is measured in terms of the proportion of current resources (income) devoted to financing past consumption (Bahuli & Bala, 2020; Olusegun, Oladipo & Omotayo, 2021) the more the resources earmarked for debt servicing, the less the resources available to ensure sustained economic growth and development. Thus, the burden increases when a disproportionately large proportion of current resources are

used to pay off external debt. The opposite occurs when external debt can be repaid without compromising the needs of domestic economic development (Ndubuisi, 2017; Lucky & Uranta, 2024). In foreign debt servicing and repayment, the issue of exchange rate also readily comes to mind. Debt servicing refers to the process of making regular payments to creditors in order to repay borrowed funds. These payments typically include both principal and interest and are generally made on a fixed schedule. Debt servicing is an essential component of maintaining a healthy financial position for both individuals and organizations. For individuals, debt servicing can impact their credit scores and ability to borrow in the future. For organizations, debt servicing can impact their profitability and creditworthiness (Abbas and Christerisen, 2017). The cost ofdebt servicing can vary depending on factors such as the amount borrowed, the interest rate, and the loan repayment schedule. Debt servicing involves making regular payments according to a predetermined schedule, usually based on the loan agreement. These payments are typically made monthly, quarterly, or annually, depending on the type of debt and the terms of the agreement (Stieglitz, 2012). The interest rate on a loan can significantly impact the cost of debt servicing. Higher interest rates can make debt more expensive to service, while lower interest rates can reduce the overall cost of borrowing

Stock Market size

A common index often used, as a measure of stock market size is the market capitalization. Market capitalization equals the total value of all listed shares. In terms of economic significance, the assumption is that market size and the ability to mobilize capital and diversify risk are positively correlated. For the two decades covered by the study (1980 -1999) the average market capitalization was **N**78.33 billion with highest capitalization of **N**300 billion in 1999 and lowest capitalization of **N**4.46 billion in 1980 and has increased to 10.8 trillion at the end of 2018. Adeyemi (2008) identified a number of factors that account for lack of interest by Nigerian companies in being listed in the exchange: (i) high cost of public quotation, (ii) reluctance to dilute ownership and control through public quotation, (iii) the interest rate structure in the past which favoured debt financing over equity financing, and (iv) stringent requirement for listing.

Liquidity

Liquidity is used to refer to the ability of investors to buy and sell securities easily. It is an important indicator of stock market development because it signifies how the market helped in improving the allocation of capital and thus enhancing the prospects of long-term economic growth. This is possible through the ability of the investors to quickly and cheaply alter their portfolio thereby reducing the riskiness of their investment and facilitating investments in projects that are more profitable though with a long gestation period. Two main indices are often used in the performance and rating of the stock market: total value traded ratio; and turnover ratio.

Investment in Capital Market

Expected return in the future determines the level of investment that can be made in the current period. The expectation here refers to the interest rate, according to Heim (2007), the price of borrowed funds, which determines investment as the most important factor affecting the GDP. Investment in this form is an addition to real capital and capital stock in the economy. Investment, in finance, is the process of acquisition of financial assets (securities) for earning a return, (Stiglitz, 1993), which can be made domestically or abroad. Other determinants of

investments demand are the activities of the stock market (as measured by the stock market index), level of capacity utilization by firms, profitability of current investment which induces future investment, the level of depreciation allowance, the extent of government deficits and of course the exchange rate (Heim, 2008). Heim (2008) found out that that capacity utilization has no significance with government investment (which leads to crowding out or in of other investment) which is the most important variable of the eight Keynes hypothesized. In addition, investment can be seen as a function of the difference between the market value of the additional unit of capital and its replacement cost (Tobin, 1969), and can generally be divided into autonomous and induced investment which, according to Arrow (1968) can be considered reversible and irreversible. Autonomous investment is service based and not induced by demand as is not influenced by returns of factors of production while induced investment is largely profit motivated. Autonomous investment is in the purview of the public sector and therefore propelled by the government. In all of these definitions the uses of investment that leads to capital formation and increases in production capacity of the economy is the most stressed and significant (Malinvaud, 1982 and Snessens, 1987).

Theoretical Review

Dual Gap Theory

This theory was propounded by Chenery (1966) who postulates that economic growth depends on investment and that is a function of savings. Omoruyi (2005) stated most economies have experienced a shortfall in trying to bridge the gap between the level of savings and investment and have resorted to external borrowing in order to fill this gap. Ayadi and Ayadi (2008) argue that acquisition of external fund depends on the relationship between domestic savings, foreign funds, investment and economic growth. The dual gap theory is coined from a national income accounting identity which connotes that excess investment expenditure (investment- saving gap) is equivalent to the surplus of imports over export (foreign exchange gap).

Dependency Theory

The dependency theory seeks to outline the factors that have contributed to the development of the underdeveloped countries. This theory is based on the assumption that resources flow from a "periphery" of poor and underdeveloped states to a "core" of wealthy states thereby enriching the latter at the expense of the former. The phenomenon associated with the dependency theory is that poor states are impoverished while rich ones are enriched by the way poor states are integrated into the world system (Todaro, 2003; Amin, 1976).

Dependency theory states that the poverty of the countries in the periphery is not because they are not integrated or fully integrated into the world system as is often argued by free market economists, but because of how they are integrated into the system. From this standpoint a common school of thought is the bourgeoisie scholars. To them the state of underdevelopment and the constant dependence of less developed countries on developed countries are as a result of their domestic mishaps. They believe this issue can be explained by their lack of close integration, diffusion of capital, low level of technology, poor institutional framework, bad leadership, corruption, mismanagement (Momoh and Hundeyin, 1999). They see the under-development and dependency of the third world countries as being internally inflicted rather than externally afflicted. To this school of thought, a way out of the problem is for third world countries to seek foreign assistance in terms of aid, loan and investment and allow undisrupted operations of the Multinational Corporations (MNCs).

Rational Expectations Theory

Rational expectations theory states that the players in an economy will act in a way that conforms to what can logically be expected in the future. That is, a person will invest, spend, etc. according to what he or she rationally believes will happen in the future. Although this theory has become quite important to economics, its utility is doubtful. For example, an investor thinks a stock is going to go up, and by buying it, this act actually causes the stock to go up. This same transaction can be framed outside of rational expectations theory. An investor notices that a stock is undervalued, buys it, and watches as other investors notice the same thing, thus pushing the price up to its proper market value. This is the problem with Nigerian stock market trying to restore market confidence since after the global financial crunch. The general expectation of Nigerian investors is pessimistic and hence the market is dragging irrespective of the innovations introduced by the regulatory agency and the Nigerian stock exchange.

Capital Asset Pricing Model (CAPM)

The CAPM is a model for pricing an individual security or a portfolio. The CAPM model was developed independently by William Sharpe (1964), and Parallel work was performed by Lintner (1965) and Mossin (1966) these model marks the birth of asset pricing theory. The CAPM suggests that the only variables that we need in calculating the expected return on security are: the risk-free rate (a constant), the expected excess return on the market, and the security's beta (a constant). The CAPM model is attractive because of its effectively simple logic and intuitively pleasing predictions relating to how it measures risk and the relation between expected return and risk. Unfortunately, the CAPM simplicity causes the empirical record of model to be poor, poor enough to invalidate the method used in the application of the model. The models empirical problems may reflect true failings or they may also be due to the shortcomings of the empirical tests, most notably, poor proxies for the market portfolio of invested wealth, which plays a crucial role in the models' predictions. The CAPM is built on the model of portfolio choice developed by Harry Markowitz (1959). The Markowitz model is often known as a "mean-variance model", it describes the relationship between risk and the expected return of an asset under the conditions of market equilibrium in a capital market where all investors undertake optimal portfolio selection. The model assumes investors are not risk takers and that they care only about the mean and variance of their one-period investment return when choosing among portfolios.

Empirical Review

Abdullahi and Fakunmoju (2019) examined the effect of market liquidity, inflation, and exchange rates on stock return in Nigerian Stock Exchange market. The researchers used the Auto-regressive Distributive Lag (ARDL) bound test method of analysis within the period of twenty-one years. Findings revealed that in the short run, stock turnover, trading volume, exchange and inflation rates have affected stock return positively and significantly. In the long run, market turnover has a positive effect. However, inflation and exchange rates have affected stock return negatively and significantly. Then, trading volume has a negative but insignificant effect on stock return. Agyapong and Bedjabeng (2022) examined the role external debt and foreign direct investment play in influencing financial development in Africa. Annual data on external debt, foreign direct investment and financial development were extracted from the World Bank World Development Indicators from 2002 to 2015. The data employed were analysed within causal research design and the dynamic panel using generalized method of

moment estimation approach. The findings revealed that external debt and foreign direct investment have a significant positive relationship with financial development in African economies. Governments of the sampled economies should enact policies that would help attract high level of foreign direct investment as it contributes positively to financial development. Finally, governments of the sampled African economies should ensure foreign direct investment and external funds borrowed are channeled to productive sectors.

Ajayi, and Edewusi, (2020); Matthew and Mordecai (2016); Matthew and Mordecai (2016) Abdulkarim and Saidatulakmal (2021)investigated the effect of government debt on Nigeria's economic growth using annual data from 1980 to 2018 and the Autoregressive Distributed Lag technique. The empirical results showed that external debt constituted an impediment to long-term growth while its short-term effect was growth- enhancing. Domestic debt had a significant positive impact on long-term growth while its short-term effect was negative. In the long term and short term, debt service payments led to growth retardation confirming debt overhang effect. The findings suggested that the government should direct the borrowed funds to the diversification of the productive base of the economy.

Al-Dhaimesh (2020), examined the response of Jordanian commercial banks share prices to monetary and financial variables between a period 2001 to 2018 using multiple linear regression. The findings revealed that locally sourced debt has statistically significant and direct response on the prices of Jordanian commercial bank securities. One of the findings was, an increase in government debt to GDP ratio has an inverse relationship with stock index returns. The contribution of foreign debt on the economy's performance and stock exchange of the South Asia Association for Regional Cooperation was investigated by Irfan, Rao, Akbar, and Younis (2020). On a data set spanning the years 1992 to 2017, panel least square regression techniques were used. It revealed a negative non-significant connection between the external debt and stock market performance proxy my stock market index, however this work doesn't corroborate with Darrat (1988). Araoye (2021) examined the effect of capital market development on the foreign portfolio investment in Nigeria. The time series secondary data covering the period 1990 to 2019 used for the study were obtained from the Central Bank of Nigeria Statistical Bulletin, Nigeria Stock Exchange fact sheet, National Bureau of Statistics, Articles, Journals libraries and Internet. The study analyzed the data using unit root test to determine the stationarity or otherwise of the time series data with Augmented Dickey Fuller (ADF) unit root test. Vector Error Correction Model was employed in estimating the effect of the independent variables on the dependent variable. Granger causality test was also adopted to establish the direction of causality among the relevant variables. The findings revealed that market capitalization has positive but significant impact on foreign portfolio investment in Nigeria. The granger causality result indicates unidirectional causality movement from market capitalization (MCAP) and real gross domestic product (RGDP) to foreign portfolio investment. The study recommended that capital market regulators should apply all necessary tools to encourage listing of private companies on the floor of stock exchange market.

Boloupremo (2020) investigated the relationship between liquidity and stock returns by examining the influence of market liquidity on stock returns in the Nigerian Stock exchange. Vector autoregression model was employed for the period 1985-2015. Empirical results suggest that the higher the market liquidity (volume of trading and turnover), the higher the stock index returns. Thus, establishing a positive relationship between liquidity and stock returns of firms listed on the Nigerian stock market during the period examined after controlling for market size.

Didia and Ayokunle (2020) examined the impact of public and publicly guaranteed debt on the

economic growth of Nigeria. The study disaggregates total public and publicly guaranteed debt into external debt and domestic debt, and examines whether the two kinds of debt have differential impact on economic growth in Nigeria. Utilizing data from the Central Bank of Nigeria, and the World Bank aanalysis using the Vector Error Correction Model (VECM) and covering 1980 – 2016, revealed that domestic debt has a statistically significant positive relationship with economic growth in the long run while external debt exhibiting a negative relationship with economic growth was not statistically significant. As a policy recommendation from this study, the Federal Government of Nigeria may want to start paying more attention to the mix of domestic debt and external debt in Nigeria's loan portfolio.

Ehikioya et al., (2020) examined the relations between public external debt and economic growth in African countries. The paper used the Johansen Cointegration test and system Generalized Method of Moments (sysGMM) to examine the dynamic relations between external debt and economic growth in 43 African countries over the period 2001–2018. The study used data from World Development Indicators (WDI) as published by the World Bank and the World Economic Outlook database as provided by the International Monetary Finance (IMF). The study provides an understanding of how the importance of external debt could be short-lived due to its misapplication. The result reveals evidence to support a longrun equilibrium relationship between external debt and economic growth in Africa. The result demonstrates that beyond a specific capacity, the short-run converges to equilibrium in the longrun and external debt would start to have a deteriorating impact on economic growth in Africa. The findings of this study reinforce the need for policymakers to ensure proper application of external debt on economic activities that would lead to sustained long-term economic performance. Moreover, the government and development partners must put in place a monitoring mechanism to ensure the efficient use of borrowed funds. Eke and Akujuobi, (2020) investigated the effect of public debt on economic growth in Nigeria, covering the period 1981-2018. Employing a co-integration approach, the study revealed prominent among others that a significant short-run relationship exists between Nigeria's public debt and economic growth. Also, the study further showed that whereas both the domestic debt and the external debt variables were statistically significant, only the latter failed the a priori expectation test and thus, exerts a negative contribution to economic growth in Nigeria. On the basis of the findings, the study concluded that most of the external borrowings in Nigeria end up being misappropriated. Hence, the recommendation is that there should be proper ways of monitoring public borrowings with special emphasis on all external debts contracted with a view to ensuring that misappropriation is drastically reduced, if not eradicated. Ekong, Effiong and Inyang (2021) examined the linkages between public borrowing and the growth in productivity. The Cobb-Douglas production function modified to include debt accumulation and other variables – broad money supply, inflation rate, exchange rate, trade openness, and interest rate – was used to achieve the objectives. The data covering 1981 to 2019 were analyzed using the unit root test, Autoregressive Distributed Lag bounds test for cointegration, and the error correction model and threshold regression. Findings from the study revealed that both domestic and foreign borrowings exhibit negative effect on growth of the Nigerian economy in the short-term and in the long-term, thereby suggesting a crowding out effect of debt on the economy. Ekor et al., (2021) examined if external debt impair economic growth in Nigeria 1996-2020. The debt and economic growth debate remain topical in Nigeria given the controversies that often trail the government's plan to always borrow to fund the annual budget deficits. This study provides an empirical contribution to the national discourse by assessing the impact of foreign debt on the Nigerian economy. Variables of the study were

external debt stock, debt service, GDP Applying a dynamic variant of the auto-regressive distributed lag model, the main result from this study is that in the long run, external debt accumulation and the associated service payments have negative effects on the economy. The policy implication is that government should always ensure that external debt accretion is sustainable and used for infrastructure development. Ekpe, (2020) investigated the impact of external debt on economic growth in Nigeria from 1981-2019. The study employed the Auto regressive distributed lag method, Bounds test and the Granger causality test as analytical technique. The study found that external debt assumes a positive and insignificant relationship with gross domestic product. Also, the ratio of external debt to export indicates a negative and statistically significant relationship with gross domestic product. The study also discovered that exchange rate indicates a positive and significant relationship with gross domestic product. It also found that inflation rate and interest rate assume a negative insignificant relationship with gross domestic product. The study recommends that government should diversify the nation's export base so as to increase export earnings and promote industrialization in order to reduce import dependency as a high exchange rate will make our goods more attractive in the foreign market and will increase foreign exchange earnings. Mohammad and Rounagh (2022) examined market efficiency and fractal feature of NASDAQ stock exchange, using time series modeling and forecasting of stock index with ARMA-GARCH model. The findings show that ARMA-GARCH model can forecast very well at the error level of 1 percent. Also, the result shows that a positive correlation and significant relationship exists between the stock price indexes over time and NASDAQ stock exchange is efficient market and non-fractal market. Nguyen, Hai and Nguyen (2021) explored the influence of the COVID-19 outbreak and the government's disease control measures on the stock returns and liquidity of Vietnam-listed companies in the financial services sector. A panel data regression analysis was conducted and findings revealed that the daily growth in the total number of confirmed cases caused by COVID19 has significant negative effects on the stock market returns and liquidity. Nzeh (2020) investigated public debt and economic growth in Nigeria using annual data spanning a period of 1981-2018 and under the framework of Autoregressive Distributed Lag (ARDL) bounds technique, the results of findings revealed that public debt contributes to the growth of the economy both in the short-run and in the longrun. The study also found the optimal threshold level of debt to be 40.2% in both the long-run and short-run. Also finding revealed that while trade openness contributes to GDP positively, both inflation and fiscal deficit adversely affect GDP.

Olusegun, Olufemi, Olubunmi, (2020) investigated the impact of public debt on economic growth in Nigeria between 1981 and 2018 using ARDLECM estimation technique. The variables used in the study were tested for stationarity using the Augmented Dickey Fuller. The result revealed that EDS, DDS, FDI and GOVE were stationary at first differencing while GDPGR was stationary at level. The study revealed that external debt and foreign direct investment positively affect economic growth while domestic debt and government expenditure hinders economic growth in Nigeria. The error correction model coefficient which is -0.969 means that nearly 96.9 percent of any disequilibrium in economic growth is corrected by the external debt, domestic debt, foreign direct investment and government expenditure within one period (one year), the study recommends that the country can borrow from external sources when the need arise, however, caution should be taken to avoid putting the country into debt crises. Also, government should reconsider her spending structure to favour infrastructure development which would motivate both local and foreign investors to invest and in turn enhance economic growth. Lastly, government and policy makers should formulate policies that would attract foreign investors and

provide enabling environment vis-à-vis security of lives and properties.

Literature Gap

The research is being conducted on the basis of a gap in variables, methodology, places, and economic policies that differs by countries. This is due to the fact that, from the studies examined some of the key measures of capital flows were omitted by the precious authors. To fill these gaps, therefore, this work, include these variables and employed methods of analysis that are characterized by large sample sizes and absence of cointegration issues. Furthermore, majority of the work is done in foreign countries and with different economic policies and locations different from Nigeria. Majority of the studies reviewed neglect the effect of external debt as capital inflow and the effect on financial sector development but focused more on external debt and economic growth. This study examined the relationship between debt servicing and stock market performance in Nigeria.

Methodology

This study adopted the ex-post facto research design approach in analyzing data. Ex-post facto research is systematic empirical inquiry in to a research problem which the researcher does not have direct control of the independent variables because their manifestations have already occurred. Onwumere, (2005) opine that the ex-post facto research design is appropriate when the researcher does not intend to control the variables and as such those variables must have been in existence and had already existed in published form. This study used secondary data sourced mainly from the Central Bank of Nigeria (CBN) statistical bulletin. The data for the study comprises annual time series data of Nigeria economic growth measured by real gross domestic products, debt burden indicators and sources of Nigeria external debt over the periods covered in this study 1990-2022.

Model Specification

The study models are specified below:

GASPI= f(DS) (1)

GMKT= f(DS) (2)

GNTE= f(DS) (3)

GSMS= f(DS) (4)

$$GASPI = \alpha + \beta_1 DS + e_i \quad (5)$$

$$GMKT = \alpha + \beta_1 DS + e_i \quad (6)$$

$$GNTE = \alpha + \beta_1 DS + e_i \quad (7)$$

$$GSMS = \alpha + \beta_1 DS + e_i \quad (8)$$

Where:

GASPI = Growth in all share price index
GMKT = Growth in market capitalization
GNTE = Growth in the number of traded equities
GSMS = Growth in stock market size
DS = debt servicing

Data Analysis Procedure

The main tool of analysis is the Ordinary Least Squares (OLS) using the multiple regression method for a period of 35 years, annual data covering 1990– 2024. Statistical evaluation of the global utility of the analytical model, so as to determine the reliability of the results obtained were carried out using the coefficient of correlation (r) of the regression, the coefficient of determination (r^2), the student T-test and F-test.

Analysis and Discussion of Findings

Table 1: Results on Debt Servicing and Growth of All Share Price Index

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DS	-0.687308	0.175210	-3.922758	0.0005
C	0.105772	0.081537	1.297223	0.2041
R-squared	0.331724	Mean dependent var		0.015086
Adjusted R-squared	0.310167	S.D. dependent var		0.540807
S.E. of regression	0.449174	Akaike info criterion		1.295878
Sum squared resid	6.254469	Schwarz criterion		1.386575
Log likelihood	-19.38199	Hannan-Quinn criter.		1.326395
F-statistic	15.38803	Durbin-Watson stat		1.891755
Prob(F-statistic)	0.000000			

Source: E-view 12.0

The regression result in the above Table 1 showed that debt servicing has a negative impact on the growth of all share price index with values of -0.687308. This explains further that as the values in the independent variable increase by 0.05, the value of the predicted variable also reduced by 0.6 percent. the constant values explain the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.105772. The R-squared value of 0.331724 explains that 33.1% of the variation in the dependent variable explained the independent variable while 66.9% of independent variables not included in this study explains the dependent variable. It furthers explains that the variables used in predicting the dependent variables are almost 100% appropriate which led the f-statistics probability value of 0.000000 revealing the significance of the model to this study. The Durbin Watson value of 1.891755 shows there is no evidence of autocorrelation among the variables specified for the study.

Table 2: Results on Debt Servicing and Growth of Market Capitalization

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DS	-0.023630	0.018839	-1.254339	0.2188
C	0.383965	0.144619	2.655013	0.0123
R-squared	0.346864	Mean dependent var		0.206814
Adjusted R-squared	0.317078	S.D. dependent var		0.183046
S.E. of regression	0.181476	Akaike info criterion		-0.518360
Sum squared resid	1.053877	Schwarz criterion		-0.428574
Log likelihood	10.81213	Hannan-Quinn criter.		-0.487741
F-statistic	8.573367	Durbin-Watson stat		1.074243
Prob(F-statistic)	0.000004			

Source: E-view 12.0

The regression result in the above Table 2 showed that debt servicing has a negative impact on the growth of market capitalization with values of -0.023630. This explains further that as the

values in the independent variable increase by 1%, the value of the predicted variable also reduced by 0.02 percent. the constant values explain the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.383965. The R-squared value of 0.346864 explains that 34.6% of the variation in the dependent variable explained the independent variable while 65.4% of independent variables not included in this study explains the dependent variable. It furthers explains that the variables used in predicting the dependent variables are almost 100% appropriate which led the f-statistics probability value of 0.000004 revealing the significance of the model to this study. The Durbin Watson value of 1.074243 shows there is no evidence of autocorrelation among the variables specified for the study.

Table 3: Results on Debt Servicing and Growth of traded equities in Nigeria Stock Market

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DS	-0.642233	0.209461	-3.066127	0.0045
C	0.128733	0.048852	2.635171	0.0130
R-squared	0.232695	Mean dependent var		0.008906
Adjusted R-squared	0.207943	S.D. dependent var		0.189203
S.E. of regression	0.168386	Akaike info criterion		-0.666427
Sum squared resid	0.878966	Schwarz criterion		-0.575730
Log likelihood	12.99605	Hannan-Quinn criter.		-0.635910
F-statistic	9.401132	Durbin-Watson stat		1.489733
Prob(F-statistic)	0.004469			

Source: E-view 12.0

The regression result in the above Table 3 showed that debt servicing has a negative impact on the growth of traded equities with values of -0.642233. This explains further that as the values in the independent variable increase by 1%, the value of the predicted variable also reduced by 0.64 percent. the constant values explain the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.128733. The R-squared value of 0.232695 explains that 23.2% of the variation in the dependent variable explained the independent variable while 76.8% of independent variables not included in this study explains the dependent variable. It furthers explains that the variables used in predicting the dependent variables are almost 100% appropriate which led the f-statistics probability value of 0.004469 revealing the significance of the model to this study. The Durbin Watson value of 1.489733 shows there is no evidence of autocorrelation among the variables specified for the study.

Table 4: Results on Debt Servicing and Growth in stock market size in Nigeria Stock Market

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DS	-0.645508	0.205690	-3.138259	0.0039
C	0.093937	0.030786	3.051352	0.0048
R-squared	0.391368	Mean dependent var		0.003303
Adjusted R-squared	0.349393	S.D. dependent var		0.082597
S.E. of regression	0.066623	Akaike info criterion		-2.490480
Sum squared resid	0.128719	Schwarz criterion		-2.353067
Log likelihood	42.84768	Hannan-Quinn criter.		-2.444932
F-statistic	9.323918	Durbin-Watson stat		1.912567
Prob(F-statistic)	0.000747			

Source: E-view 12.0

The regression result in the above Table 4 showed that debt servicing has a negative impact on

the growth of stock market size with values of -0.645508. This explains further that as the values in the independent variable increase by 1%, the value of the predicted variable also reduced by 0.64 percent. the constant values explain the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.093937. The R-squared value of 0.391368 explains that 39.1% of the variation in the dependent variable explained the independent variable while 60.9% of independent variables not included in this study explains the dependent variable. It furthers explains that the variables used in predicting the dependent variables are almost 100% appropriate which led the f-statistics probability value of 0.000747 revealing the significance of the model to this study. The Durbin Watson value of 1.912567shows there is no evidence of autocorrelation among the variables specified for the study.

Discussion of Findings

From model one, the study found that debt servicing has a negative impact on the growth of all share price index with values of -0.687308. This explains further that as the values in the independent variable increase by 0.05, the value of the predicted variable also reduced by 0.6 percent. the constant values explain the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.105772 and that 33.1% of the variation in the growth of all share price index was explained by variation in debt servicing. The findings of this study are in line with the findings of Abdullahi and Fakunmoju (2019) that in the short run, stock turnover, trading volume, exchange and inflation rates have affected stock return positively and significantly. In the long run, market turnover has a positive effect. Adesola and Oka (2017) that financial market performance has no long run causal relationship with foreign portfolio investment in Nigeria. The no long run causal relationship could also be seen in the study of Akinmulegun, (2018) that examined the effect of capital market development on foreign portfolio investment in Nigeria over the period 1985 to 201, Adubofour Mangudhla and Dadzie (2021) study suggested a statistically significant and inverse relationship between external debt and economic growth. It is also argued in the study that, Ghana's inflation regime has a significant impact on the growth and the findings of Aduda, Murayi and Chogii (2014).

From model two, the study found that debt servicing has a negative impact on the growth of market capitalization with values of -0.023630. This explains further that as the values in the independent variable increase by 1%, the value of the predicted variable also reduced by 0.02 percent. the constant values explain the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.383965 and that 34.6% of the variation in growth of market capitalization was traced to debt serving. The findings of the study confirms the findings of Aduda, Masila and Onsongo (2012) hat stock market development is affected by stock market liquidity, institutional quality, income per capita, domestic savings and bank development while macroeconomic stability (proxied by inflation) and private capital flows were found to have no relationship with stock market development, Josiah and Akpoveta (2019) that sound macroeconomic environment reflective of coherent exchange rate, sufficient money supply (liquidity), exchange rate, increased output and financial openness stimulates stock market returns in Nigeria, the findings of Karki (2018) that the performance of stock market is found to respond positively to real GDP, inflation and money supply, and negatively to interest rate From model three, the study found that debt servicing has a negative impact on the growth of traded equities with values of -0.642233. This explains further that as the values in the independent variable increase by 1%, the value of the predicted variable also reduced by 0.64

percent. the constant values explains the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.128733 and that 23.2% of the variation in growth of traded equities was explained in variation in external debt. Empirically, the findings confirm the findings of Ndlovu, Faisal, Resatoglu and Tursoy (2018) that interest rate, money supply and inflation had positive impact on share prices, whereas exchange rate had a negative effect on stock prices, the findings of Kirui, Wawire and Onono (2014) that exchange rate had significant relationship with stock returns, while GDP, inflation and Treasury bill rates indicated an insignificant link with stock returns, the findings of Ouma and Muriu (2014) that: money supply and inflation had significant positive effect on stock market returns; exchange rate had negative impact on stock returns; while interest rate had no relationship with stock returns and the findings of Lyndon and Gbalam (2019) that a long-run equilibrium and short-run dynamic relationships existed between the selected macroeconomic variables and stock market performance in the Nigerian Stock Exchange. this finding confirm the findings of Buigut, Soi, Koskei and Kibet (2013) that debt, equity and gearing ratio were significant determinants of share prices for the sector under consideration, the findings of Kipngetich, Kibet, Guyo and Kipkoskey (2011) that public information disclosed in the prospectus was insignificantly mirrored in initial public offer prices and that rational theory cannot explain the effect of investor sentiment in initial public offer market in Kenya given that investor sentiment and board prestige were negatively related to initial public offer price and the findings of Chkili and Nguyen (2014) that the exchange rate does not impact stock market returns of BRICS countries, regardless of the regimes and the findings of Caporale, Hunter and Ali (2014) showed also a significant causal relation from exchange rates to stock returns.

From model four, the study found that debt servicing has a negative impact on the growth of stock market size with values of -0.645508. This explains further that as the values in the independent variable increase by 1%, the value of the predicted variable also reduced by 0.64 percent. the constant values explains the autonomy behaviour of the predicted value as it shifts upwards away from zero closer to one as revealed in the value 0.093937 and that 39.1% of the variation in growth of stock market size was traced to debt servicing. The findings of this study is in line with the findings of Abdullahi and Fakunmoju (2019) that in the short run, stock turnover, trading volume, exchange and inflation rates have affected stock return positively and significantly. In the long run, market turnover has a positive effect. Adesola and Oka (2017) that financial market performance has no long run causal relationship with foreign portfolio investment in Nigeria. The no long run causal relationship could also be seen in the study of Akinmulegun, (2018) that examined the effect of capital market development on foreign portfolio investment in Nigeria over the period 1985 to 201, Adubofour Mangudhla and Dadzie (2021) study suggested a statistically significant and inverse relationship between external debt and economic growth. It is also argued in the study that, Ghana's inflation regime has a significant impact on the growth and the findings of Aduda, Murayi and Chogii (2014).

Conclusion and Recommendations

Conclusion

This study examined the relationship between debt servicing and stock market performance in Nigeria. Four models were formulated with simple regression. From model one, the study found that debt servicing has a negative impact on the growth of all share price index with and that 33.1% of the variation in the growth of all share price index was explained by variation in debt servicing. From model two, the study found that debt servicing has a negative impact on the

growth of market capitalization and that 34.6% of the variation in growth of market capitalization was traced to debt serving. From model three, the study found that debt servicing has a negative impact on the growth of traded equities and that 23.2% of the variation in growth of traded equities was explained in variation in external debt. From model four, the study found that debt servicing has a negative impact on the growth of stock market size and that 39.1% of the variation in growth of stock market size was traced to debt servicing. From the findings, the study conclude that there is significant relationship between debt servicing and growth of all share price index in Nigeria, that there is no significant relationship between debt servicing and growth of growth of market capitalization in Nigeria, that there is significant relationship between debt servicing and growth in number equities traded in Nigeria and that there is significant relationship between debt servicing and g growth in stock market size in Nigeria.

Recommendations

i. Given that external and domestic debt have a positive and significant impact on stock market performance in the long run, the government should consider raising Nigeria's levels of external and domestic debt within appropriate limits. These funds should be allocated to productive economic activities, such as long-term infrastructural projects, capable of enhancing the country's economic health in the long run, ultimately fostering improved stock market performance.

ii. The study found that debt servicing negatively affects stock market performance in Nigeria in the long run. Therefore, policies should be geared towards reducing the existing public debt stock to prevent the economy from experiencing debt overhang, which can hinder growth and adversely impact stock market performance.

iii. The study recommends investment policies that proved proper utilization of the external debt to enhance stock market performance and continued deepening of the capital markets to lengthen further the maturity profile of external debt and diversification of the investor base.

iv. There should be strategies such as restructuring public debt towards external borrowing which is comparably cheaper than domestic debt, and rationalization of recurrent expenditures to contain the widening deficit in the primary balance would be necessary in the medium-term to ensure that public debt remains on a sustainable path to allow for capital markets development.

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