



The Capital Market and Infrastructure Development in Nigeria

SAMSON ADENIYI ALADEJARE¹, HAMISU NASIRU² AND TIMOTHY ODZIE³

¹Department of Economics, Faculty of Social Sciences, Federal University Wukari.

E-mail: aladejare4reel2000@gmail.com

²Department of Economics, Faculty of Social Sciences, Federal University Wukari.

E-mail: nasiruhamsu@yahoo.com

³Post-Graduate Student, Department of Economics, Federal University Wukari,

City Affiliation: Wukari, Country Affiliation: Nigeria. E-mail: odzietimi3@gmail.com

Abstract: In Nigeria, budget financial viability is not adequate to fund and renovate decrepit infrastructure, let alone carry out new projects. Hence, this study examined the impact of the capital market on Nigeria's infrastructure development between 1981 and 2023, using the autoregressive distributed lag (ARDL) model. According to the findings, Nigeria's capital market has not had any beneficial long-term effect on the country's infrastructure development. Specifically, while the all-share-index has an insignificant long-run effect, government stocks and corporate bonds exerted significant adverse impact on infrastructure development. However, equities had a beneficial effect on infrastructure development in the long-run. The result implies that the increase in accruing yield to capital market instruments has had more negative than positive impact on infrastructure development due to systemic challenges. Applicable policy measures were suggested by the paper.

Keywords: Capital market; Bonds; Equities; Stocks; Infrastructure; Development.

JEL Classification: G11, G18, H54.

Received : 11 March 2025

Revised : 15 April 2025

Accepted : 23 April 2025

Published : 28 June 2025

TO CITE THIS ARTICLE:

Samson Adeniyi Aladejare, Hamisu Nasiru & Timothy Odzie. (2025). The Capital Market and Infrastructure Development in Nigeria, *Journal of International Money, Banking and Finance*, 6: 1, pp. 39-54.

1. INTRODUCTION

The critical nature of viable infrastructure in an economy cannot be overstated because of the beneficial consequences that it may foster and generate for the economy. Consequently, there is no doubt that poor infrastructure constitutes a substantial deterrent to the economic advancement of developing countries. Apart from negatively affecting a country's economic development, the standards of infrastructure can also have a detrimental impact on the social environment, lowering people's standard of

living and thus affecting their overall psychological sense of well-being (Aladejare, 2022a).

Nigeria's efforts towards accomplishing adequate infrastructure growth have faltered. The country's continuous high increase in population and insufficient funds for addressing the infrastructure deficit is not just an uphill battle to grasp, but traditional fiscal provision for project finance remains limited (Ebi and Aladejare, 2022). Additionally, finding a sustained and viable source of financing development projects remains an unsolved difficulty. Likewise, regardless of multiple initiatives by different governments to address Nigeria's infrastructure disparity, factors such as lack of funds, ineffective execution, a maintenance culture, corruption, a weak fiscal regime, and, on occasion, policy summersaults have conspired to prevent this goal from being met (Onuora, 2019). Furthermore, the country's population has been growing by an average of 2.6% since the 1990s, and might reach 400 million persons by 2050 (WDI, 2023; Statista, 2024). This situation will further put additional strain on already inadequate infrastructure and make government financing more difficult.

Consequently, Nigeria may be incapable to stand out favourably in the comity of nations unless the country has a viable infrastructure in place, such as a stable energy supply for industries, an efficient transportation network for lower product and delivery costs, an affordable housing scheme, a feasible sophisticated ICT hub, safe water supply, sanitation, well-equipped schools and health care facilities, and so on. Nonetheless, the Nigerian government's prior efforts to bridge the infrastructure deficit included the implementation of the National Integrated Infrastructure Master Plan (NIIMP) in 2014. It is anticipated that the country will require \$2.3 trillion in infrastructure development to address its infrastructure deficit, with an annual average of \$100 billion (Ibrahim and Mohammed, 2020).

One way Nigeria might achieve its infrastructural development potential is to leverage the capital market, as traditional budgetary allocation and other sources of project funding have demonstrated inadequacy (Zubair and Aladejare, 2017; Onwumere et al., 2023). There is little doubt about the capital market's ability and prospective to bridge project gaps. Also, the capital market can serve as a vital component of long-term resource mobilisation required for capital formation in order to accelerate economic growth and development. Unlike the money market's short-term funding profile which renders it inappropriate for project infrastructure investment, the capital market provides an atmosphere that allows for the formation of long-term financing and robust investment by the private sector in infrastructure development. Furthermore, the capital market offers a diverse range of financing instruments and

investor categories, potentially resulting in a greater pool of cash than other financing choices (Ogbole and Aladejare, 2015; Anderu, 2020; Olawale, 2024).

However, while the capital market can provide this large pool of finance, its full potential for infrastructure projects is yet to be realised. Given the enormous funding required annually for infrastructure development in the country, there is a need to position and leverage the capital market as a realistic choice that can benefit the country while also standing the test of time due to its inherent untapped prospects. Consequently, this study's objective examined the role of the capital market in infrastructural development from 1981 to 2023 for Nigeria.

This study empirically contributes to the literature by consolidating on the exiting works related to the role of private sector investment on sustainable infrastructure development through the capital market. Specifically, the study considers capital market instruments including the all-share-index, government stocks, equities, and corporate bonds; and using the autoregressive distributed lag (ARDL) technique, they were regressed on gross capital formation which is rare in the literature, particularly, for Nigeria.

The next section is the literature review (Section ii). Section iii covers the data and methodology. Section iv contains the results and discussions. Finally, Section v concludes the paper and offered policy recommendations.

2. LITERATURE REVIEW

2.1. Theoretical Review

This study uses the financial intermediation theory, hypothesised by Gurley and Shaw (1956), the theory adapts well to the potential of the capital market in bridging the country's infrastructural gap. The premise is based on shifting resources from the surplus segment of an economy to the deficit sector for investment. The capital market remains the cornerstone and method through which investable resources are moved from owners to investors with the expectation for a substantial return on investment. This theory serves as a foundation for a formal and interconnected link that regulates the operations of the capital market in terms of providing, organising, and managing the payment system, in which fund providers have a right to a return on capital and fund investors earn a profit on their investment, complementing each other for mutual benefit. It is a financial structure that connects investors (deficit economic units) with lenders/fund suppliers (surplus economic units) for the aim of exchanging values required for specialisation, mobilisation, and savings transfer. To earn a reward, users of money transferred from those who generate them are anticipated to put the funds

in an economic enterprise where the funds will provide the maximum returns for the source of such funds.

Accordingly, given Nigeria's scarce government financing and the current demand for infrastructure throughout the nation to improve production efficiency and structural changes, the country will need to depend on the capital market, which has an ample of untapped idle funds. Also, since the capital market has the opportunity for low-risk borrowing, the government can use it to fund new projects as well as to refurbish existing infrastructure.

2.2. Empirical Review

Agrawal (2020) attempted to analyse the finance and development of infrastructure in India. The paper found that despite various efforts by the public sector to finance infrastructure development, a wide disparity between the supply and demand of funds still prevails in India. Hence, the study made recommendations for ways to improve India's infrastructure, including the need to use creative business strategies and reduce administrative hiccups to guarantee greater private involvement and unlock the unrealised potential of the diaspora. The report also made clear the necessity of reviewing the rules governing banks' statutory liquidity ratios.

Ray and Bisbey (2020) used the bond and capital market to study Asia's financial infrastructure. In order to release a significant portion of domestic and corporate savings, the study set out to identify the enormous needs for capital markets through listed financial products across asset classes. The empirical results demonstrated that the infrastructure community as a whole is aware of and in agreement with the enormous potential pool of liquidity from the bond markets. Hence, a portion of the enormous infrastructure requirements in new and emerging markets can be funded by this pool.

According to a study by Raymond et al. (2020), capital markets can significantly increase investments in sustainable infrastructure in Latin American nations. According to their findings, green bonds and green finance can increase infrastructure investment and draw in the private sector for the development of sustainable infrastructure. They also underlined how green bonds and green finance may draw in the private sector for funding sustainable infrastructure. Countries in the region may address their intertwined ecological, social, and climate crises in this way. Additionally, they proposed that in order to have a good shift in the sustained recovery of infrastructure investment, the region must use capital market techniques.

An empirical examination of the factors influencing the usage of capital market instruments in the financing of infrastructure projects was carried out by Rao and Vivek (2020). Additionally, the study offered an empirical examination of the variables

influencing the usage of capital market instruments for infrastructure funding. Additionally, they pointed out that banks contribute to crowding-out bond financing. According to their findings, bond holders are less equipped than banks to mitigate and absorb project risk.

Kolawole (2020) investigated the connection between Nigerian infrastructure growth and government spending. The study looked at the effect of capital spending on infrastructure development and concluded that the government plays a major role in promoting infrastructure development in Nigeria. The long-term co-integration relationship between the variables was verified using the ARDL technique. The study's findings demonstrate the importance of foreign direct investment (FDI) and official development assistance (ODA) as well as the beneficial effects of private involvement in infrastructure development.

Inwang (2020) carried out a similar study on the subject of "Bridging Nigeria's infrastructure gap by leveraging the capital market & private sector." The study made clear that one of the biggest obstacles to Nigeria's development has been its infrastructure. Furthermore, because of the untapped wealth and flexibility in getting massive funding for infrastructure projects, the report recommended that the most practical way to address Nigeria's infrastructure development is to leverage the private sector and capital market.

A comparable study on sustainable finance for the upkeep of vital urban infrastructure in Nigeria was conducted by Mawoli (2021). According to the paper, bank loans are too costly for project financing, and Nigeria faces a significant infrastructure gap that will require significant financial resources to address beyond budgetary allocation. The research indicated that in order for Nigeria to address its infrastructure difficulties, resources from the public and private sectors must be mobilised to bridge the infrastructure gap, even though corporate finance for infrastructure projects is restricted by the sustainability clause.

A related study on the subject of "Factors influencing Nigerians to invest in Sukuk for infrastructure development" was carried out by Abdulkarem et al. (2021). Using surveys and questionnaires, the findings indicate a considerable positive correlation between religion and the propensity to invest in Sukuk. Similarly, among prospective investors in Abuja, the capital, the quantity of information has a negative and significant link with their intention to invest in Sukuk for infrastructure development.

In order to finance real estate development in Nigeria, Alohan and Ogedengbe (2021) attempted to investigate the capital market option. Examining the extent to which insurance companies can satisfy loan demand and the potential that can be realised given the leveraged capital market was the aim of the study. For the investigation,

random and cluster sampling methods were chosen. The outcome demonstrated that the capital market is the best and most dependable source of leverage for real estate development.

A quantitative evaluation of the Belt and Road Initiative (BRI) and Partnership for Global Infrastructure and Investment (PGII) in Nigeria was carried out by Uwanak (2022). According to the study, given Nigeria's experience with debt, the government shouldn't focus more on infrastructure development with China to prevent a debt-trap scenario. By claiming that no nation can assist Nigeria in resolving all of its infrastructure issues, the study attempted to address the question of "what approach can Nigerians adopt in engaging China for debt-free infrastructural development?" Because of Nigeria's scale advantage in terms of both population and economy on the African continent, the study suggested a strategic means to match China's economic interest in debt-free infrastructure development with Nigeria's infrastructure needs.

Similarly, Sani et al. (2022) explored the option of Sukuk funding for infrastructure development in Nigeria through an explorative research technique. Inferences deduced from the study indicated that aside the low cost association with Sukuk, the funding option offers the country a significant opportunity to close its enormous infrastructure gap as against the use of external borrowings.

Kodongo et al. (2023) conducted a study on the role of the bonds market in bridging the infrastructural deficit in 40 Sub-Saharan African economies. Empirically, the paper established an adverse and nonlinear link between both variables. Specifically, the study showed that corporate bonds had more reducing effect than government bonds on the infrastructural deficit in the examined African countries.

Alamu et al. (2024) investigated the potential of public-private partnership (PPP) funding to alleviate Nigeria's infrastructure deficiencies. In particular, it evaluated the challenges and possibilities associated with PPPs in terms of funding public projects. The study's empirical findings demonstrated that corruption, a lack of funding, a lack of political will, and poor local institutions all hampered PPPs.

Olawale (2024) attempted to ascertain how the performance of the capital market affected the growth of the Nigerian economy. The study's empirical conclusions were obtained by applying the ordinary least squares (OLS) technique to data spanning 1981 to 2019. According to the study, market capitalisation and the all-share-index were identified as essential factors influencing Nigeria's economic growth.

Nneka et al. (2025) assessed the impact of bond market development on the economic prosperity of some developing economies. By employing the ARDL method, the study was able to unravel that government bond capitalisation, inflation, and trade openness beneficially impact economic growth. However, domestic lending to the

private sector and corporate bond capitalisation adversely affects economic prosperity in the selected economies.

2.2.1. Literature gap

From the above review, only ample studies have specifically and recently tried to determine the effect of the capital market on infrastructure development in Nigeria. Also, these few studies have focus on specific financing means such as Sukuk, insurance, PPP, FDI and ODA funding for infrastructure development. However, this paper extends the discourse by considering capital market tools including the all-share-index, government stocks, corporate bonds, and equities, and how they affect infrastructure development in Nigeria.

3. DATA AND METHODOLOGY

3.1. Data

Annual time series data on capital market instruments, such as the all-share-index, government stocks, equities, and corporate bonds, covering the years 1981 to 2023, are used in the study. However, data on gross capital formation proxy for the dependent variable (infrastructure development). Expressed in Table 1 are the study variables, their measurements, and sources.

Table 1: Variable description

<i>Variable</i>	<i>Measurement</i>	<i>Source</i>	<i>Symbol</i>
Infrastructure development	Gross capital formation (₦ Billion)	IMF (2023)	INFR
All-share-index	Index	CBN (2023)	ASI
Government stock	₦ Billion	CBN (2023)	GSTK
Equities	₦ Billion	CBN (2023)	EQT
Corporate bonds	₦ Billion	CBN (2023)	CPBD
Inflation	Consumer price index (Index)	WDI (2024)	CPI

Source: Author's compilation.

3.2. Model Specification

In this study, the ARDL model is used to show the relationship between the capital market and infrastructure development in Nigeria. The ARDL methodology offers various econometric advantages. First, the ARDL modelling incorporates a sufficient number of lags to represent the data-generating process that is unique to a particular modelling framework (Bertsatos et al., 2022). Second, the ARDL allows for different

stationarity status among the regressors so long as the dependent variable is I(1) (Aladejare and Musa, 2024). Also, if serial correlation is not present in the projected ARDL model, endogeneity is less troublesome (Bertsatos et al., 2022). This approach assumes that all variables are endogenous and simultaneously estimates the model's long- and short-term parameters. Presented below is an ARDL representation of the study.

$$\begin{aligned} \Delta \ln INFR_t = & \partial_0 + \partial_1 \ln INFR_{t-1} + \partial_2 \ln ASI_{t-1} + \partial_3 \ln GSTK_{t-1} + \partial_4 \ln EQT_{t-1} + \\ & \partial_5 \ln CPBD_{t-1} + \partial_6 \ln CPI_{t-1} + \sum_{m=0}^q \lambda_i \Delta \ln INFR_{t-m} + \sum_{m=0}^q \phi_i \Delta \ln ASI_{t-m} + \\ & \sum_{m=0}^q \psi_i \Delta \ln GSTK_{t-m} + \sum_{m=0}^q \delta_i \Delta \ln EQT_{t-m} + \sum_{m=0}^q \omega_i \Delta \ln CPBD_{t-m} + \\ & \sum_{m=0}^q \Omega_i \Delta \ln CPI_{t-m} + \varphi_i trend_t + \theta ECM_{t-1} + \\ & \varepsilon_t \end{aligned} \quad \text{Equ. 1}$$

where all variables are as defined in Table 1, while inflation was employed as a study control variable. The speed of adjustment parameter from short-run to long-run steady state is represented by the coefficient θ of the error correction mechanism, depicted by ECM. Furthermore, a trend component was added to the model to reflect the nation's business climate and macroeconomic stability. Investors rely on these two factors when making any kind of investment choice in an economy since they are seen to be essential to the efficient operation of the capital market.

4. RESULTS AND DISCUSSIONS

4.1. Descriptive Statistics

The output of the descriptive statistics for the study variables is displayed in Table 2. The average infrastructure value indicates that the nation's capital accumulates approximately ₦54622.22 billion annually. The average government stock was ₦3074.212 billion, while the ASI was 20864.38. During the study period, the average share of stocks was ₦5055.052 billion, while the average share of corporate bonds was ₦193.155 billion. Additionally, the mean CPI for the study duration was 18.947, which is quite low.

Table 2: Descriptive Statistics Result

	<i>INFR</i>	<i>ASI</i>	<i>GSTK</i>	<i>EQT</i>	<i>CPBD</i>	<i>CPI</i>
Mean	54622.22	20864.38	3074.212	5055.052	193.155	18.947
Std.Dev.	61981.77	17106.52	5505.028	7025.466	396.532	16.455
Kurtosis	3.401	1.943	6.744	4.739	6.697	5.437
Jarque-Bera	9.933	2.618	56.046	21.214	58.759	35.058
Probability	0.007	0.270	0.000	0.000	0.000	0.000
Observations	43	43	43	43	43	43

Source: Author's estimated output.

3.2. Unit Root Test

In particular, the Augmented Dickey Fuller (ADF) and Philips-Perron (PP) results in Table 3 demonstrates that all variables were not stationary in level form, with the exception to CPI. However, both tests showed an overwhelming degree of stationarity of the variables when further probed at first difference. Thus, the dependent variable's first difference stationarity, and the mixture of level and first difference stationarity in the regressors lends credence to the study's ARDL model adoption.

Table 3: Unit Root Tests

	<i>ADF Test</i>			<i>PP Test</i>		
	<i>With Constant</i>	<i>With Constant & Trend</i>	<i>Without Constant & Trend</i>	<i>With Constant</i>	<i>With Constant & Trend</i>	<i>Without Constant & Trend</i>
<i>IINFR</i>	-5.207***1	-5.871**1	-1.491	-5.277***1	-5.874***1	-3.337**1
<i>LASI</i>	-5.495***1	-6.131***1	-4.736***1	-5.495***1	-6.707***1	-4.714***1
<i>IGSTK</i>	-2.447	-2.464	-1.998**1	-4.299***1	-4.350***1	-3.808***1
<i>IEQT</i>	-6.891***1	-7.368***1	-4.502***1	-6.854***1	-7.296***1	-4.819***1
<i>ICPBD</i>	-6.138***1	-6.136***1	-5.953***1	-6.926***1	-7.400***1	-5.947***1
<i>ICPI</i>	-3.530**0	-4.48***0	-0.781	-3.403**0	-3.305*0	-0.520

Where *, **, *** indicates significance at 10%, 5%, and 1% respectively, 0 and 1 are stationarity at level and first difference.

Source: Author's estimated output.

3.3. Optimal lag length

The optimal lag length test, which was established by using the traditional VAR framework, is shown in Table 4. Two statistics are particularly pertinent when doing this test because they often produce the lowest statistics. These two criteria are the Akaike information criterion (AIC) and the Schwarz information criterion (SIC).

Table 4: Optimal Lag Length Result

<i>Lag</i>	<i>LogL</i>	<i>LR</i>	<i>FPE</i>	<i>AIC</i>	<i>SC</i>	<i>HQ</i>
0	-184.710	NA	0.001	10.353	10.870	10.537
1	-35.832	235.071	3.45e-06	4.412	6.481	5.148
2	-9.968	32.671	7.04e-06	4.946	8.566	6.234
3	45.725	52.762	4.06e-06	3.909	9.081	5.749
4	183.487	87.007*	5.93e-08*	-1.447*	5.276*	0.945*

Note: * indicates lag order selected by the criterion, LR: sequential modified LR test statistic (each test at 5% level), FPE: Final prediction error, AIC: Akaike information criterion, SC: Schwarz information criterion and HQ: Hannan-Quinn information criterion.

Source: Author's estimated output.

Although the SIC and AIC, along with the other criteria supports four (4) optimum lags, the predictive power of the model will be considerably diminished, if this lag length is taken into consideration. Consequently, in this study, the ideal lag length of two was used since it was thought to be suitable for maintaining the predictive power of the study model.

4.4. ARDL bounds test result

The next stage employs the bounds technique to ascertain whether there is a long-term link between the variables. The long-term relationship between the variables are displayed in Table 5. The null hypothesis of no cointegration/levels relationship was rejected by comparing the bounds test's F-statistic to the upper bounds critical values $I(1)$. According to conventional wisdom, since the bounds test value of 5.318 is higher than the lower $I(0)$ and upper bounds $I(1)$ for 1%, 2.5%, 5%, and 10% significance levels, the presence of long-run relationship between the variables is valid.

Table 5: ARDL F-Bound Test

<i>Equation</i>	<i>Test statistic</i>	<i>Value of F-Statistic</i>	<i>K</i>	<i>Sign.</i>	<i>I(0)</i>	<i>I(1)</i>
<i>INFR = f(ASI, GSTK, EQT, CPBD, CPI)</i>	Sample size (n) = 40	5.318	5	10%	2.75	3.79
				5%	3.12	4.25
				2.5%	3.49	4.67
				1%	3.93	5.23

Source: Author's estimated output.

5. ARDL OUTCOMES

The study regressors' long-term effects on infrastructure development are shown in Table 6. In particular, the outcome showed that while the all-share index had an insignificant impact on infrastructure development in the long-run, the short-run effect was significant and negative. On the other hand, infrastructure development is significantly inversely impacted by government stock exclusively in the long-run. Additionally, the growth of infrastructure is significantly impacted by equities in the long and short-run periods. In contrast, while corporate bonds significantly hinder the development of infrastructure in the long-run, its short-term effect is enhancing. Also, there is a strong and positive correlation between infrastructure development and inflation.

Table 6: ARDL estimated output

<i>Regressors</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>Prob.</i>
<i>IASI</i>	-0.056	0.087	0.527
<i>IGSTK</i>	-0.106	0.035	0.005***
<i>IEQT</i>	0.412	0.067	0.000***
<i>ICPBD</i>	-0.100	0.040	0.018**
<i>ICPI</i>	0.118	0.067	0.092*
Constant	3.420	0.509	0.0000***
Trend	0.047	0.009	0.000***
<i>dIASI</i>	-0.207	0.050	0.000***
<i>dIGSTK</i>	0.003	0.033	0.938
<i>dIEQT</i>	0.102	0.050	0.050*
<i>dICPBD</i>	-0.024	0.017	0.163
<i>dICPBD(-1)</i>	0.041	0.017	0.020**
<i>ecm(-1)</i>	-0.522	0.085	0.000***
Diagnostic test			
Normality	0.561		0.755
Serial-correlation	3.304		0.192
Heteroskedasticity	12.346		0.418

Note: *, ** and *** represents significance at 10%, 5%, and 1%, respectively.

Source: Author's estimated result.

Additionally, at the 1% level, the trend component is statistically significant and positive. This suggests that infrastructure development would substantially follow the same path as long as macroeconomic stability and Nigeria's business environment continue to improve. The ECM's negative coefficient and significance indicates that about 52% of adjustments must be done annually to attain long-term steady state or equilibrium restoration. In other words, given the short-term disequilibrium in the capital market's instruments, it will take about 21 months for the infrastructure development disequilibrium to return to its long-term course.

6.6. Stability Test

The stability of the parameters was evaluated using the cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ) recursive residuals test, displayed in Figure 1. Both statistics plot indicates that the study's parameters are stable because the two critical boundaries of their analysis (red lines) do not lie outside of the CUSUM and CUSUMSQ (blue lines). Therefore, the findings of the study are considered reliable and consistent for the purpose of formulating policy recommendations.

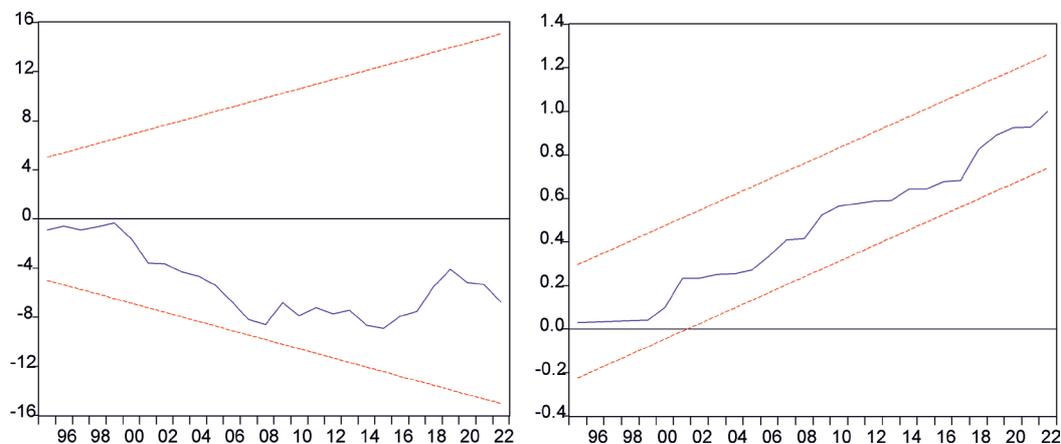


Figure 1: CUSUM and CUSUMSQ test

Source: Author's estimated output.

4.7. Discussion of Findings

As seen in Table 6, the ASI has an insignificant long-term impact, but a substantial adverse short-term effect on infrastructure development. This result shows that short-term infrastructure growth is not aided by ASI improvements, and while long-term benefits are achieved, they are not substantial enough to have an impact on Nigerian infrastructure development. Therefore, the short-term rise in the capital market performance of all companies' share prices indicates a decrease in funding for infrastructure development. A reason for this outcome is that capital owners might favour these portfolios in the hopes of obtaining quicker returns as opposed to making investments in infrastructure like roads, dams, bridges, electricity grids, telecommunications, etc., which could take a long time for investors' cash and profits to be recouped.

Also, the significant and negative effect of government stocks on infrastructure development suggests that the government is investing proceeds from these equities

in other endeavours, despite the fact that they are anticipated to support long-term infrastructure accumulation. For example, it is well known that the CBN, on behalf of the Nigerian government, occasionally issues treasury bills with maturities ranging from two to twenty-five years. These kinds of funding are typically raised to cover the budget deficit. However, rather than being used for the capital outlay for which they were intended, these extra funds are typically being used for ongoing expenses. This belief is demonstrated by the fact that, since the 1980s, government spending has frequently surpassed capital expenditure (Aladejare, 2021; Aladejare, 2022b). This occurrence has consistently hindered infrastructure development in Nigeria.

However, equities have significant and favourable long and short-term impact on infrastructure development. This finding implies that investors are more inclined to contribute to the nation's infrastructure development as the capital market value of shareholders' corporate ownership increases. For instance, numerous PPP initiatives across the nation exhibit this readiness to invest, whether through concessions, road construction, or real estate development. Furthermore, corporate bonds have a major detrimental long-term impact, regardless its lagged value revealing a significant beneficial effect on infrastructure development in the short-term. Given that corporate bonds are fixed-income securities that businesses issue to investors in order to raise additional cash, this outcome seems logical. Corporate bonds give investors the chance to generate consistent income, and their demand increases with their interest yield. Corporate bonds are an essential financial tool for businesses since they are typically used for operations and expansion goals. Therefore, the more firms use this capital market tool, the lower the amount of funds available for infrastructure development due to the crowding-out effect. Hence, infrastructure development is more likely to respond negatively by declining in the long-term for the country.

5. CONCLUSIONS AND RECOMMENDATIONS

By using the ARDL model, this study examined the impact of the capital market on Nigeria's infrastructure development between 1981 and 2023. According to the study's findings, Nigeria's capital market has not had any beneficial long-term effect on the country's infrastructure development. This submission contradicts the finding by Kodongo et al. (2023). Specifically, while the all-share-index has an insignificant long-run effect, government stocks and corporate bonds exerted significant adverse impact on infrastructure development. However, equities had a beneficial effect on infrastructure development in the long-run. The result implies that the increase in accruing yield to capital market instruments has had more negative than positive impact on infrastructure development due to systemic challenges.

Accordingly, the study recommends that to promote capital accumulation in the nation, the capital market must be repositioned through financial sector reforms. In this sense, raising the yield can make infrastructure lending in Nigeria more alluring. At the same time, corporate bonds—particularly those used for national infrastructure development—may be exempted from tax. Regardless of the instrument that capital market investors decide to support, this policy will ensure funding for infrastructure development.

Additionally, government borrowing in the capital market may be linked to particular infrastructure projects as a matter of policy. This policy's objective is to provide guidance against the use of capital market-derived monies to finance ongoing government spending. Additionally, it is essential that these monies be sent straight to the capital market handling ministry or agency. When the collected money is transferred into the central government's coffers through the CBN, the goal is to lessen the government's motivation to divert such monies towards non-capital projects.

Disclosure of potential conflict of interest

The author has no competing interests to declare.

Disclaimer Statement: The views expressed in this article are exclusively the author's.

References

- AbdulKareem, I.A., Mahmud, M.S., & Oyetunji, A.M. (2021). Factors influencing Nigerians to invest in Sukuk for infrastructure development. *Journal of Emerging Economies and Islamic Research*, 9(2), 57-75.
- Agrawal, R. (2020). Review of infrastructure development and its financing in India. *Paradigm*, 24(1), 109-126.
- Aladejare, S.A. (2021). Macroeconomic volatility and its significance to the rising external indebtedness of Nigeria. *Journal of Public Finance Studies*, 66, 1-17.
- Aladejare, S.A. (2022a). Population health, infrastructure development and FDI inflows to Africa: A regional comparative analysis. *Asian Journal of Economic Modelling*, 10(3), 192-206.
- Aladejare, S.A. (2022b). Deficit financing components, inflation and capital formation in Nigeria: New evidence from a direct and indirect analysis. *Asian Journal of Economic Modelling*, 10(1), 27-42.
- Aladejare, S.A., & Musa, M.A. (2023). Simulating contemporaneous effects of inflation and exchange rates on economic prosperity path for Nigeria: Evidence from dynamic ARDL and KRLS techniques. *FUWUKARI Journal of Social Sciences*, 3(1), 93-116.

- Alamu, O.I.A., Hassan, A.O., Asa, K.J., & Odunayo, H.A. (2024). Addressing infrastructure deficits through public-private partnership funding of public projects in Nigeria: A review. *TWIST*, 19(3), 130-138.
- Alohan, O.E., & Ogedengbe, P.S. (2021). Exploring the capital market option in financing real estate development in Nigeria. *African Journal of Educational Archives*, 7.
- Anderu, K.S. (2020). Capital Market and economic growth in Nigeria. *Jurnal Perspektif Pemniayaan dan Pembangunan Daerah*, 8(3), 295-310.
- Bertsatos, G., Sakellaris, P., & Tsionas, M.G. (2022). Extensions of the Pesaran, Shin and Smith (2001) bounds testing procedure. *Empirical Economics*, 62(2), 605-634.
- Central Bank of Nigeria (2023). Statistical bulletin.
- Ebi, B.O., & Aladejare, S.A. (2022). Oil price transmission to deficit financing and capital formation. *Jurnal Ekonomi Malaysia*, 56(1), 123-133.
- Gurley, J.G., & Shaw, E.S. (1956). Financial intermediaries and the saving-investment process. *The Journal of Finance*, 11(2), 257-276.
- Ibrahim, U.A., & Mohammed, Z. (2020). Assessing the impact of capital market development on economic growth: Evidence from Nigeria. *IOSR Journal of Economics and Finance*, 11(2), 1-15.
- International Monetary Fund (2023). Investment and capital stock dataset.
- Kodongo, O., Mukoki, P., & Ojah, K. (2023). Bond market development and infrastructure-gap reduction: The case of Sub-Saharan Africa. *Economic Modelling*, 121, 106230.
- Kolawole, B.O. (2020). Government expenditure and infrastructure development in Nigeria. *Journal of Economic Studies*, 17(1), 122-133.
- Mawoli, M.A. (2021). A sustainable funding for the maintenance of critical urban infrastructure in Nigeria. *KIU Journal of Social Sciences*, 7(1), 91-102.
- Nneka, U.J., Ngong, C.A., Ugoada, O.A., Onwumere, J.U.J. (2025). Effect of bond market development on economic growth of selected developing countries. *Journal of Economic and Administrative Sciences*, 41(1), 132-148.
- Ogbole, F.O., & Aladejare, S.A. (2015). The Nigerian stock exchange, it's impact on the performance of the Nigerian economy: An econometric approach (1981-2012). *Reiko International Journal of Social and Economic Research*, 8(4), 1-18.
- Olawale, A. (2024). The impact of capital market on the economic growth of Nigeria. *GSC Advanced Research and Reviews*, 21(1), 013-026.
- Onuora, O.G. (2019). Effect of Capital Market on Economic Growth and Development of Nigeria (2000-2017). *International Journal of Academic Research in Business and Social Sciences*, 2(9), 211– 220.

- Onwumere, J.U.J., Cyprian, O.A., Ngong, C.A., & Onyejiaku, C.C., & Moguluwa, S. (2023). Responsiveness of capital market development to manufacturing sector performance in Nigeria. *International Journal of Business Competition and Growth*, 8(3), 185-201.
- Rao, V. (2020). An empirical analysis of factors responsible for the use of capital market instruments in infrastructure project finance. *ADB Working Paper Series*.
- Ray, S., & Bisbey, J. (2020). Financing infrastructure in Asia through bonds and capital markets. *Journal of Infrastructure, Policy and Development*, 4(1), 87-120.
- Reymond, A., Egler, H-P, Masullo, D., & Pimentel, G. (2020). Financing sustainable infrastructure in Latin America and the Caribbean: Market development and recommendations. *Inter-American Development Bank*.
- Sani, A.B., Nasir, A.K., & Bakare, T.O. (2022). Sukuk as a viable option instrument of financing infrastructural development in Nigeria. *Gusau International Journal of Management and Social Sciences*, 5(2), 62-77.
- Statista (2024). Population forecast in Nigeria in selected years between 2025 and 2050 (in millions). Available at: <https://www.statista.com> sourced 9/12/2024.
- World Bank World Development Indicators (2023).
- Zubair, Z.A., & Aladejare, S.A. (2017). Exchange rate volatility and stock market performance in Nigeria. *Asian Journal of Multidisciplinary Studies*, 5(11), 194-201.