CAN BOND AND EQUITY MARKETS ATTRACT MORE FOREIGN DIRECT INVESTMENT?

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Abstract

This study investigates the role of bond and equity market development in attracting Foreign Direct Investment (FDI) inflows in Nigeria over the period 1996–2024. Using an ex-post facto research design, secondary data were sourced from Central Bank of Nigeria Statistical Bulletin and World Bank Development Indicators. The analysis focuses on the contribution of bond and equity markets, alongside macroeconomic stability, to the attraction of foreign capital. The Autoregressive Distributed Lag (ARDL) model was employed to estimate both short-run and long-run relationships, while the ARDL bounds test confirmed the presence of cointegration among the variables. The results indicate that equity market development has a consistently positive and significant impact on FDI in both the short and long run, highlighting the importance of a well-functioning stock market in attracting foreign capital. Bond market development exhibits a mixed effect, with short-term expansions positively influencing FDI, while long-term high levels may discourage investment due to potential crowding-out effects. Inflation and exchange rate were found to be insignificant, suggesting that moderate macroeconomic fluctuations do not materially affect FDI inflows. The findings underscore the need for integrated policy measures that strengthen financial markets and ensure macroeconomic stability to sustain and enhance foreign investment in Nigeria.

Keywords: bonds, equity, Inflation, exchange rate, ARDL, Nigeria

JEL Classification: F21, G10, G15, C32

I. INTRODUCTION

The FDI has a very important role in enhancing faster growth of the economy, creation of jobs, and empowering the productive power of the emerging economies. In the case of developing nations such as Nigeria, the inflows of stable FDIs have been of growing significance since the local savings are no longer adequate to facilitate industrialization on a large scale (Shittu et al., 2025). Nevertheless, the world investors are very selective in that they are only pouring their funds to the economies that have sound financial systems, credible markets and sound macro economies. This fact has changed the focus on the performance of domestic capital market, especially the bond and the equity market segments as the possible source of foreign investment (Sakharov, 2025).

Since Nigeria is still diversifying beyond oil reliance, whether the capital markets can be the attraction to more FDI is turning into a topical policy and research issue. The bond market in Nigeria has been through a major evolution process in the past three decades. The market was initially characterized by government securities but over time other types, such as corporate bonds, began to be introduced though the government holdings take the largest proportion (Adewale & Adewole, 2024). Having a healthy bond market is an indicator of financial stability, which offers long-term investment tools and reduces the cost of financing and is a pointer to macroeconomic credibility (Adewole, 2023). The maturity and level of development of a bond market in a country can be used by foreign investors as a proxy of the institutional quality and the capacity of government to sustain debt, in the long run (Ojeka et al., 2024).

Theoretically, a well-developed bond market that is typified by high issuance, market capitalization and better liquidity should be able to draw foreign investment by providing a safer and long-term investment option. The case in Nigeria is however complicated: the portfolio inflows are in government securities. The financial environment in Nigeria has been changing drastically in the last twenty years, and the bond and equity markets have been actively developed (Adewole, 2023). The government and corporate bonds make up the bond market, which funds infrastructure development, corporate growth, and government projects over a long duration (Adewale and Adewole, 2024). Its expansion implies the enhanced confidence of the investors and the government effort to promote the debt

securities as an appropriate form of investment. Equally, the equity market which is the major market in the form of the Nigerian Stock Exchange (NSE) provides a market where the companies can raise capital by issuing shares to the investors. The liquidity and efficiency in this market are not only boosted by the development, but also the avenue of measurement of corporate performance is well covered thus creating confidence among other local and foreign investors (Alabdullah, 2023).

Another valuable aspect of the financial system that may influence the perception of foreign investors is the equity market (Adewale and Adewole, 2024). With an effective and robust stock market, the mobilization of capital and the development of a robust and healthy privatization of the sector improve, and the transparency of the economy is improved (Adewole, 2023). Foreign investors both in the developed and emerging markets have often used the stock market indicators like market capitalization, liquidity and turnover to measure the potential of the investment and the extent of economic dynamism. The Nigerian Exchange (NGX) has been the leader of the Nigerian equity market that has had moments of extreme growth and instability due to political, fiscal and economic uncertainties (Adewale, 2025). Having a high and productive equity market would also invite foreign companies to develop long-term activities in the country since it represents financial receptiveness, investor security, and effective resource distribution (Okonkwo & Okereke, 2025).

Thus, the development of the equity market can have a positive impact on FDI inflows, however, changes in the market performance can also bring some uncertainty that will scare away international investors. These dynamics are going to be critical in order to have an inclusive evaluation of the investment climate in Nigeria. Capital market segments and FDI also relies a lot on the macroeconomic stability, related to inflation and exchange rate fluctuations. Unpredictable and high inflation destroys the returns on investments whereas exchange rate volatility is the risk of profit repatriation (Adewale, 2025). The factors influence the confidence of the investor and predetermine the ability of the bond and equity markets to attract foreign capital. In turn, the use of these macroeconomic indicators will give a better understanding of the interaction between capital market development and FDI inflows.

The primary aim of the research is to analyze how far the establishment of bond and equity markets in Nigeria can also bring Foreign Direct Investment (FDI) inflows in Nigeria. Particularly, the research questions include: is bond market development affecting FDI inflows in Nigeria, is equity market development affecting FDI inflows in Nigeria, is a combination of both bond and equity market development affecting FDI inflows, is the macroeconomic control variables, such as inflation and exchange rate, the moderating factor between capital market development and FDI inflows.

II. LITERATURE REVIEW

Conceptual review

Bond Market Development

The bond market is considered to be a part of the financial market where debt security issues, including government bonds, corporate bonds, and treasury bills, are issued and exchanged (Adewale & Adewole, 2024). It is a very important tool of mobilizing the long term funds which availed both the government and the corporations access to capital. Market capitalization, trading volume, turnover in the bond market, and liquidity are indicators of the development of the bond market (Adewole, 2023). The bond market has been steadily increasing in Nigeria as a result of efforts by the government to strengthen the financial markets and not be dependent on bank loans as a primary source of funding.

A mature bond market has predictable returns, minimizes the risks of investment, and offers a long-term and predictable investment opportunity to foreign investors (Otchere et al., 2022). Accordingly, the development of the bond market is conceptually associated with the inflows of Foreign Direct Investment (FDI) since this is the indicator of economic stability, transparency, and policies welcoming investors. Bond markets have an opportunity to boost the ability of Nigeria to receive foreign capital by offering a safe investment environment.

Equity Market Development

The stock market or the equity market is a market where companies raise capital through the issuance of shares to investors (Adewale & Adewole, 2024). It enables the process of resource distribution, wealth generation and sharing of risks in the economy. The major equity market development indicators are market capitalization, liquidity, and turnover ratios as well as listed companies (Adewole, 2023). The Nigerian Stock Exchange (NSE) is at the centre of Nigeria's equity market activities as it gives both local and international investors the diversification opportunities in their portfolios (Adewale and Adewole, 2024).

An established equity market reflects economic stability, transparency of the corporate, and efficiency in regulation, all which are important aspects in attracting Foreign Direct Investment (FDI). Equity markets are used to provide indications of favorable investments conditions by providing prospective returns and market transparency. In conceptual terms, such equity market development supplements bond markets in that it offers a strong financial environment that is capable of persuading foreign investors into their decision to invest in Nigeria.

Foreign Direct Investment (FDI) Inflows

Foreign Direct Investment (FDI) is a situation where an investor has a permanent interest in a foreign company, which is normally in the form of ownership, mergers, acquisitions, or joint ventures (Shittu et al., 2025). FDI inflows play a significant role in the economic growth of emerging economies such as Nigeria because they introduce capital, modernized technology, managerial skills, and international markets (Emeka, 2024).

The degree of FDI is determined by economic stability, efficiency in the financial market and accommodation in investment policy. In theory, the inflow of FDI is affected by the development of a domestic financial market and macroeconomic variables like inflation and the stability of the exchange rates. An established bond and equity market will lower perceived risk of investments, raise liquidity and is an indicator of a stable economic climate, therefore increasing the attractiveness of Nigeria to foreign investors.

FDI and Bond and Equity Markets.

The bond and equity markets play the core role in the financial infrastructure of a country and affect the allocation of capital and flows of investment (Adewale and Adewole, 2024). In theory, mature financial markets alleviate information asymmetry, offer liquidity and low transaction costs, which attract foreign investors to invest their capital (Adewole et al., 2023). The bond market will offer the long-term securities that are in line with investment horizons of foreign investors and the equity market will be able to offer portfolio diversification and possible returns. Empirical research proposes the existence of positive correlation between the development of the capital market and FDI inflows, which implies that the improvement of such markets can be regarded as the sign of economic stability and trust of investors.

Connecting the performance of bond and equity markets with any FDI, the researchers can prove how the development of the financial markets not only concentrates the domestic savings but also attracts the external capital. This association supports the need to have concerted policies that will intensify financial markets to improve the competitiveness of Nigeria in the global investment environment.

Inflation and Exchange Rate

The macroeconomic indicators that are essential and affect the financial markets and the foreign direct investment (FDI) inflows are inflation and exchange rate (Shittu et al., 2025). This inflation cuts the real returns on investment, the purchasing power, and uncertainty, which may scare away foreign investors (Adewale, 2025). On the same note, the exchange rate volatility may be used to influence the value of foreign investments that will influence the investor decision in an emerging economy such as Nigeria (Adewale, 2025).

The Inflation and the Exchange rate is significant because of having the proper isolation of the real impact of the bond and the equity market development on the FDI inflows. In theory, stable macroeconomic environment increases the signaling role of financial markets thus making them more efficient in attracting foreign capital. Thus, by adjusting inflation and exchange rate the researchers have the possibility to determine whether bond and equity market development has an independent effect on FDI without the need to consider other economic variables that may cause investors to become more or less confident and make an investment decision.

Theoretical Review

OLI (Eclectic) Theory

The Eclectic Paradigm or the OLI Theory was introduced by John H. Dunning in 1977 and elaborated in 1980. The theory justifies the reasons why companies consider investing overseas through Foreign Direct Investment (FDI) as opposed to exporting or licensing. Dunning states that FDI require three conditions to take place:

The first one is the advantage of ownership, the second one is the advantage of location, and the third one is the advantage of internalization. Factors that determine location advantage are financial development, political stability, infrastructure as well as macroeconomic condition of the host country. This renders OLI theory quite

appropriate to the current study, where the development of bond and equity market of Nigeria can be a place advantage that can draw foreign investors. A deep, liquid and efficient financial market minimizes risk, enhances the distribution of capital, and denotes a stable economy, which are some of the elements that are valued by foreign investors. Thus, the OLI theory offers a rational basis on analyzing whether financial market systems in Nigeria can stimulate more FDI in the country.

Theory of Financial Liberalization.

The Financial Liberalization Theory is a theory which was independently put forward by Ronald McKinnon (1973) and Edward Shaw (1973), with an argument that liberalizing the financial sector facilitates economic growth by eliminating distorting factors like interest rate ceilings, credit controls and government over interference. According to the theory, when the financial markets including bond and equity markets are left to flourish freely, they will be attractive to local and foreign investors due to better efficiency, greater liquidity and increased returns on investments.

Well-organized and liberalized capital markets offer risk-reducing investment instruments and open more financial instruments to the foreign investors. This renders the theory to be appropriate in the context of its application in comprehending how the financial market evolution may impact the FDI inflows. In the case of Nigeria, liberalization reforms on bond and equity market operations can turn the confidence of investors and make the country more attractive to long term foreign investments.

Theoretical Framework

The research is based on the OLI (Eclectic) Theory since it presents the strongest explanation of the impact that the characteristics of financial markets have on the decisions of foreign investors. The theory highlights Location Advantages, which entails macroeconomic stability, financial infrastructure, capital market development and regulatory efficiency, which are some of the aspects that are analyzed in this study. The bond and equity markets of Nigeria are a part of the financial infrastructure of the country and their maturity can give an indication of stability, transparency and investment preparation.

These characteristics fit into the explanation that Dunning makes that foreign investors will prefer places where the financial environment will minimize risk and maximize returns. Therefore, when the capital markets in Nigeria are deepened, liquid and efficient, they generate good location advantages which will bring FDI. Although financial liberalization theory justifies the efficiency of the market, the OLI theory justifies better the correlation between the bond and equity market development and the FDI inflows. This is why the OLI Theory is chosen as the theoretical framework to be used in the present study.

Empirical review

Khan, Audi, and Ali (2025) explore the connection that exists between foreign direct investment (FDI), financial development, and sustainable economic growth in developing nations between 2008 and 2024. The study concludes the FDI was shown to have a strong and positive impact on the growth of GDP under the condition of macroeconomic stability and the financial institutions are well developed through the use of panel data and econometric models of OLS, fixed effects and GMM. The indicators of financial development including domestic credit to the private sector and market capitalisation increase the growth effect of FDI. On the other hand, inflation and political instability had a bad impact on the growth outcomes. The paper has identified the complementary effect of finance in capital inflows leverage and the significance of institutional quality, smooth investment processes, and sustainable financing arrangements. It suggests that the institutional capacity should be reinforced and ESG criteria should be incorporated in order to enjoy maximum inclusive and sustainable benefits of FDI.

In the article by Ayinde, Fatai, and Adeyemi (2024), the authors discuss the macroeconomic determinants of foreign direct investment (FDI) in 15 emerging economies in the COVID-19 pandemics (2019Q12023Q2). The study does not have endogeneity and heterogeneity issues, as the Wang and Wong (2007) model and a panel system Generalized Method of Moments are applied. It has been found that responsiveness to FDI is dependent on FDI history in the past with economic size becoming the driver of FDI inflows to high-FDI economies and interest and exchange rates playing a more important role in low-FDI economies. Lagged macroeconomic variables are important, and they bring to prominence the delayed effects of shocks. The analysis also concludes that FDI can also replace GDP during turbulent times. It has been recommended that policy should be maintained to have macroeconomic stability and lag effects to encourage FDI even in times of global crises.

Nneka et al. (2025) discuss how bond market development influences economic growth in some of the developing countries between 1990 and 2020. The study measures the economic growth using Autoregressive

Distributed Lag (ARDL) and co-integration model where the GDP per capita measures growth, and the bond market development is measured by the capitalisation of government and corporate bonds. The results indicate that government bond capitalisation, openness to trade and inflation have a positive impact to the long-term economic growth, and corporate bond capitalisation and credit to the domestic sector have negative effects to growth. The paper recommends that governments must improve the structure of the bond markets to make it easy to issue corporate bonds, minimize the number of bottlenecks in the processes, and lure investors. In general, the study shows that government bonds play a very significant role in funding the long term growth programs of the developing economies, and warns that inefficiencies of the corporate bond market may slow down growth.

Petlele and Buthelezi (2025) examine the dynamic relationship between economy growth, South Africa government bonds, and bond yields between the years 1986 and 2024 by utilizing Structural Vector Autoregression (SVAR). The paper fills a knowledge gap on the effect of maturity and yield shocks on GDP growth in emerging economies. Findings indicate that any shock to short-term government bonds will decrease the GDP in the short-term as a result of the crowding out effect, but the effect of a shock to mid-term bonds is W-shaped in its effect on GDP. Short term shocks in the yield of bonds drastically reduce the GDP, and the yield shocks in the long run lead to a first fall then rise growth. The paper emphasizes the need to distinguish between bond maturities and yields in determining economic impact and proposes steady monetary and fiscal policies in reducing uncertainty in borrowing costs and fluctuation on interest rates.

Usman, Alhaji, and Alhassan (2025) consider how sovereign government domestic bonds such as FGN Bonds, FGN Savings Bonds, and FGN Sukuk influence the growth of the Nigerian capital market during the period of 2009 to 2024. Based on quarterly time-series data and the Autoregressive Distributed Lag (ARDL) model, the research explores the short-run and long-run relations. The results indicate that the long-term impacts of all forms of government bonds on capital market growth are great and positive, which illustrates why they are very important financial tools in the mobilization of long-term funds and in order to enhance productive investments. It suggests policy measures that need to be taken to maximize the issuance of bonds such as the short term market shocks, the creation of awareness about FGN Savings Bonds, and encouraging the issuance of FGN Sukuk to continue the growth in the market and improving the financial development of Nigeria.

Adewale and Adewole (2024) examine how stock market indicators affect the economic growth in Nigeria. Based on the ex-post facto design and purposive sampling, the authors used the Autoregressive Distributed Lag (ARDL) model to research the impact of the main stock market variables of Equity (LEQ), Corporate Bond (LCB), All-Share Index (LALS), and Inflation (INFLA) on the GDP using the data provided by the Central Bank of Nigeria Statistical Bulletin. Results show that there is a moderate positive relationship between these indicators and economic growth (0.628). The F-statistic 4.237 ($p = 0.009$) is the result which proves that stock market performance and the Nigerian economy have a strong relationship. It has been found that diversification of investment in the various asset classes to reduce the risks brought about by the volatility of the equity market is advisable. Also, it reiterates the importance of regulators to revise market regulations constantly to raise efficiency and price stability, and in the process, sustainable economic growth.

The article by Shittu, Adewale, and Agyemang (2025) examines the impact of the dynamics of monetary policy and macroeconomic instability on the inflows of Foreign Direct Investment (FDI) in Nigeria on the basis of the annual data between 1991 and 2024. By utilizing ARDL model, the study will be able to capture both short-term and long-term impacts of interest rate, exchange rate, inflation, money supply and unemployment in FDI. The findings indicate that FDI persistence is high implying that past inflows are important determinants of current levels of investment. Short-term trends also decrease the level of FDI by increasing interest rates and exchange rates, as well as the inflation and unemployment effect that creates uncertainty and discourages investment. Increase in the money supply helps in FDI through increase in liquidity. However, inflation in the long run comes out as one of the most significant disincentives to FDI whereas money supply is always an incentive to investment. The study comes up with the conclusion that macroeconomic stability, as manifested in predictable interest rates, stable exchange rates and controlled inflation are very important to attract and maintain foreign investment in Nigeria.

Adewale (2025) explores the connection between budget deficit, money supply, exchange rate, interest rate, and inflation in Nigeria between 1991 and 2023. The study is done based on an ex-post facto design and Autoregressive Distributed Lag (ARDL) model using Central Bank of Nigeria data in order to examine the dynamics of fiscal and monetary variables on price stability. The findings reveal a positive correlation existing between the supply of money and inflation, which is strongly positive and shows the direct inflationary effect of money supply. Fluctuations in the exchange rates were also observed to increase the inflationary pressures, the budget deficit affects inflation indirectly by its impact on the money supply. Interest rates are also contributory to inflationary tendencies though to a minor degree than money supply and exchange rate fluctuations. The paper highlights the importance of fiscal and monetary

policies being well coordinated so as to ensure price stability. It suggests the budget deficits to be curtailed, the currency to be stabilized, and moderate monetary policies to be put in place to reduce the inflationary strains in Nigeria.

III. METHODOLOGY

In this study, the research design is ex-post facto research design, which is suitable in analyzing the correlation between the historical financial market development and FDI inflows with the available past data. The time frame of the study is 1996-2024, as these years are taken because of the availability of data and its topicality to the development of the financial market in Nigeria. The secondary data is obtained at the Central Bank of Nigeria (CBN), Statistical Bulletin and the World Bank Development Indicators (WDI). The dependent variable is the FDI inflows, whereas the bond market development and equity market development are the crucial independent variables. The control variables are the rates of inflation and exchange rate since they determine macroeconomic stability and investment choices. To estimate both the short-run and long-run impacts of the financial market indicators on FDI inflows, the study employs the econometric methods that are appropriate in time-series analysis. The methodology approach offers the model a sound picture of the dynamics of the financial and investment environment in Nigeria.

Model Specification

To examine the effect of bond and equity market development on Foreign Direct Investment (FDI) inflows in Nigeria, the study adopts a time-series econometric model. The functional form of the model is expressed as:

$$FDI_t = f(BMD_t, EMD_t, INF_t, EXR_t)$$

Where:

- FDI_t= Foreign Direct Investment inflows
- BMD_t= Bond Market Development
- EMD_t= Equity Market Development
- INF_t= Inflation Rate (control variable)
- EXR_t= Exchange Rate (control variable)

The linear econometric model is specified as:

$$FDI_t = \beta_0 + \beta_1 BMD_t + \beta_2 EMD_t + \beta_3 INF_t + \beta_4 EXR_t + \mu_t$$

Where:

- β_0= Intercept
- $\beta_1 - \beta_4$= Coefficients of the explanatory variables
- μ_t= Error term capturing unobserved factors

This model allows the study to estimate how changes in Nigeria's bond and equity markets influence FDI inflows while controlling for macroeconomic stability variables.

IV. RESULTS AND DISCUSSION

Table 1. Descriptive Statistics of Variables

	FDI	BMD	EMD	INF	EXR
Mean	3.3E+09	7720.194	9073.329	13.79701	256.8989
Median	2.39E+09	3001.4	7913.752	12	148.8127
Maximum	8.84E+09	52467.4	40917.51	33.88	1465.04

Minimum	-1.9E+08	5.5	256.9	0.223606	74.625
Std. Dev.	2.65E+09	11945.05	9423.711	6.683221	287.5122
Skewness	0.71096	2.331463	1.625342	1.150752	3.052202
Kurtosis	2.353026	8.418925	5.884966	4.99657	12.50772
Jarque-Bera	2.948853	61.75506	22.82538	11.21722	154.2563
Probability	0.22891	3.89E-14	1.11E-05	0.003666	3.19E-34
Sum	9.56E+10	223885.6	263126.5	400.1134	7450.068
Sum Sq. Dev.	1.97E+20	4E+09	2.49E+09	1250.632	2314572
Observations	29	29	29	29	29

Source: Author's Computation, (2025)

Table 1 shows the descriptive statistics of the key variables employed in the research (Foreign Direct Investment (FDI), Bond Market Development (BMD), Equity Market Development (EMD), Inflation rate (INF), and Exchange rate (EXR) and including the years 1996 through 2024. To determine the long-term behaviour of macro-financial environment in Nigeria 29 annual observations were analysed.

FDI registered an average inflow of 3.3 billion, lowest of -0.19 billion in a year of net capital reversal and highest of 8.84 billion. The standard deviation is comparatively large, indicating that there are relatively large changes in the inflows of investments over time. FDI distribution is skewed to the right moderately, with a kurtosis value that is close to normal. The JarqueBra probability (0.2289) proves the fact that FDI is normally distributed at the traditional significance levels.

Bond Market Development (BMD) is a highly variable variable with the mean of 720.19 billion, maximum of 52,467.4 billion and minimum of 5 billion. The standard deviation is high since it convincingly shows that the Nigerian bond market is fast and unevenly grown over the years. The series is heavily right skewed and highly leptokurtic indicating the existence of the extreme values, which is typical of the market facing the policy-based expansions. The higher Jarque Berra statistic shows that BMD is not normally distributed.

Equity Market Development (EMD) is also very volatile with an average market size of ₦9,073.33 billion and broad distribution between the minimum and maximum values. The high kurtosis and positive skewness also suggest that the performance of equity markets is marked by acute market boom and market contraction. The test of normality establishes major deviations of a normal distribution.

The inflation (INF) stands at 13.80 indicating that Nigeria has experienced a prolonged period of inflationary pressure. The very high standard deviation (0.22-33.88) shows there were fluctuating price trends during the period of the study. The skewness of the series is positive and the distribution is not normally distributed as indicated by Jarque Bera.

The mean value of the exchange rate (EXR) stands at 256.90 per US dollar with a lot of volatility as experienced by the minimum of 74.63 and the maximum of 1,465.04. The large standard deviation and grossly leptokurtic distribution indicate the presence of sharp currency depreciation, regime changes and instability of the foreign exchange market. Hypothesis of normal distribution is highly rejected by the normality test.

On the whole, the descriptive statistics reveals that the FDI is distributed in a manner that is more or less the same as the normality, however, the financial market indicators (BMD and EMD) and macroeconomic indicators (INF and EXR) display high volatility and non-normality.

Table 2. Correlation Matrix

	FDI	BMD	EMD	INF	EXR
FDI	1	-0.23148	-0.03871	-0.28331	-0.24085
BMD	-0.23148	1	0.693789	0.744856	0.975398
EMD	-0.03871	0.693789	1	0.450716	0.571817

INF	-0.28331	0.744856	0.450716	1	0.78798
EXR	-0.24085	0.975398	0.571817	0.78798	1

Source: Author's Computation, (2025)

Table 2 shows the correlation data that sets the stage of the linear relationships between Foreign Direct Investment (FDI), Bond Market Development (BMD), Equity Market Development (EMD), Inflation (INF) and Exchange Rate (EXR). The knowledge of these relationships can be used to determine which interactions between variables may exist before an actual regression analysis.

FDI experiences poor negative relationships with all the explanation variables: -.231 with BMD, -.039 with EMD, -.283 with INF, and -.241 with EXR. That means that at the descriptive level the FDI inflows are not strongly related in a linear manner with the financial market development or with macroeconomic factors. The low correlations indicate that FDI could be affected by other factors other than the variables taken more complex econometric modelling is needed to capture dynamic changes.

BMD has positive correlations with EXR (0.975), INF (0.745), and there is a moderate correlation with EMD (0.694). These are strong correlations indicating that financial market indicators and macroeconomic conditions in Nigeria co-move especially when the market is on the rise or when the macroeconomy is under stress. On the same note, EMD has moderate correlation with EXR (0.572) and INF (0.451), yet, exhibits high positive correlation with BMD (0.694) as expected.

The degree of correlation between inflation and exchange rate is also very close (0.788), but it is in line with the historical values in Nigeria where price instability relates usually with a depreciating currency. These associations are characteristic of the emerging economies and signify the existence of structural interdependencies in the macro-financial variables.

Table 3. Short-Run ARDL Results

Dependent Variable: FDI

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)*	-0.393038	0.124113	-3.16679	0.005078
BMD(-1)	-820103	222307.9	-3.68904	0.001558
EMD(-1)	474258.7	163844	2.894576	0.009289
INF**	2.93E+07	56845283	0.51613	0.611718
C	3.45E+08	8.61E+08	0.400358	0.693359
D(BMD)	88072.04	152240	0.578508	0.569716
D(BMD(-1))	933830.3	316156.3	2.953698	0.008155
D(EMD)	146724.7	55434.64	2.646806	0.01591
R-squared	0.515136	Mean dependent var		22619766
Adjusted R-squared	0.336502	S.D. dependent var		1.57E+09
S.E. of regression	1.28E+09	Akaike info criterion		45.02057
Sum squared resid	3.12E+19	Schwarz criterion		45.40452
Log likelihood	-599.778	Hannan-Quinn criter.		45.13473
F-statistic	2.883748	Durbin-Watson stat		2.47134
Prob(F-statistic)	0.031292			

Source: Author's Computation, (2025)

Table 3 studies the short-run dynamics of the model, which analyzes the impact of the past and the current variations in the financial market development, inflation, and macroeconomic conditions on the Foreign Direct Investment (FDI) inflows in Nigeria. The lagged variables include the adjustment process to the long-run equilibrium.

The lagged FDI variable, FDI(-1), is negatively and significantly correlated (--0.393, p = 0.005), which implies the presence of dynamics of partial adjustment: about 39 percent of the past period deviations are eliminated in the current period. This implies that there are some effects of past FDI inflows on the present inflows which are in line with the investment persistence and adjustment behaviour.

Lagged Bond Market Development (BMD) has a strong negative impact (-820103, p = 0.002), whereas the difference term D (BMD (-1)) is positive and significant (933830, p = 0.008). This implies that although the historical amounts of bond market growth might be a deterrent to FDI, short term bouts of bond market growth have a positive effect on foreign investment, which represent subtle investor reactions to the liquidity trends of bond markets and government borrowing.

There is positive and significant correlation between Equity Market Development (EMD) and FDI in lagged (474,259, p = 0.009) and differenced (146,725, p = 0.016) forms that indicate that historical and current developments in the stock market draw foreign capital.

There is no significant inflation (INF) and constant term which indicates that short run price changes do not have any substantive impact on FDI inflows during the investigation period.

The model accounts 51.5 percent of the variation of FDI (R 2 = 0.515) with an adjusted R 2 =0.337, which is a moderate fit. The joint significance of the explanatory variables is proved by the F-statistic (2.884, p = 0.031), and the Durbin-Watson statistic (2.471) indicates that there is no autocorrelation in the residuals. On the whole, the findings demonstrate that the financial market development, especially equity market development and short-term bond market expansions, can contribute rather substantially to the attraction of FDI in Nigeria.

Table 4. Long-Run ARDL Results

Variable *	Coefficient	Std. Error	t-Statistic	Prob.
BMD(-1)	-2086571	613008.7	-3.40382	0.002436
EMD(-1)	1206647	365384.4	3.302405	0.003112
INF	74648068	1.48E+08	0.504677	0.618587
C	8.77E+08	2.12E+09	4.14E-01	0.682956

Source: Author's Computation, (2025)

The coefficients of Foreign Direct Investment (FDI) in Nigeria at long run as shown in Table 4 depict the long-run effects of financial market development and macroeconomic factors on inflows of foreign direct investment in Nigeria. The model describes the dynamics of equilibrium relationships being formed as time progresses which is a complement to the short-run dynamics which were discussed earlier.

The coefficient of Bond Market Development (BMD) in lagged form is negative and significant (-2,086,571, p = 0.002), meaning that an increase in the level of bond market expansion in the long-term is correlated with a decline in FDI inflows. This could be indicative of their investor apprehensions of government borrowing with bonds saturating the chances of the private sector or generating a sense of greater exposure to the macroeconomic risk.

Equity Market Development (EMD) on the other hand has a positive and strong long-run effect on FDI (1,206,647, p = 0.003). This implies that long-term gains in the equity market in terms of growth in market capitalization, liquidity and transparency is one of the key indicators to foreign investors and hence inflows of investments increase in the long run.

There is no statistical significance in the long-run of inflation (INF) or the constant term, which suggests that the material detrimental impacts of persistent changes in the level of prices on foreign investment are not evident throughout the study period. This can imply that structural financial market conditions are more sensitive to long run macroeconomic volatility as opposed to investors.

On the whole, the findings of the long run indicate that the two financial markets have different implications to attracting FDI: whereas the development of equity markets constantly promotes inflows, bond market growth could over time indicate increased government borrowing and moderate foreign investment. These findings underscore the need to have a balanced development in the financial sector and stability of policies that would lead to long-term foreign investment in Nigeria

Table 5. ARDL Bounds Test for Cointegration

Null hypothesis: No levels relationship

Number of cointegrating variables: 3

Trend type: Rest. constant (Case 2)

Sample size: 27

Test Statistic	Value
F-statistic	3.996920

Source: Author's Computation, (2025)

To establish whether there exists a long-run equilibrium relationship between Foreign Direct Investment (FDI) and determinants of the relationship (Bond Market Development (BMD), Equity Market Development (EMD) and Inflation (INF) in Nigeria, the cointegration bounds test was carried out. The null hypothesis is tested to be whether there is no long-run relationship between the variables and the alternative hypothesis is that a long-run equilibrium does exist.

The findings show that the F-statistic is 3.997 and it is compared with the critical bounds of the adopted model specification (restricted constant, Case 2). The F-statistic of the computed value is greater than the lower critical value at the 5 percent significance level, therefore, we will reject the null hypothesis of the absence of cointegration. This gives credit to a long term relationship between FDI, BMD, EMD and INF, which implies that the variables change together, but temporarily.

The three cointegrating variables that are identified also confirm that there are several long-term equilibrium relationships between foreign investment and the key financial markets indicators. This means that short-run shocks can temporarily push FDI out but the market fundamentals such as equity and bond market developments are sure to correct the imbalance back to equilibrium.

Generally, the cointegration findings validate the application of ARDL methodology in estimating long-run and short-run dynamics because it can accommodate mixed orders of integration (I (0) and I (1)). In addition, the financial market and macroeconomic variables in the referenced studies are found to be jointly important in estimating FDI inflows in Nigeria.

Table 6. Critical Values for ARDL Bounds Test

	10%		5%		1%	
Sample Size	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
30	2.676	3.586	3.272	4.306	4.614	5.966
Asymptotic	2.37	3.2	2.79	3.67	3.65	4.66

* I(0) and I(1) are respectively the stationary and non-stationary bounds.

Source: Author's Computation, (2025)

In order to identify whether there can be a long-run relationship between Foreign Direct Investment (FDI) and the explanatory factors, which included Bond Market Development (BMD), Equity Market Development (EMD), as well as Inflation (INF); the ARDL bounds testing method was used. The hypothesis of null states that there is no

relationship of levels among the variables, and the alternative hypothesis states that there is the existence of long-run equilibrium.

The analysis sample size is 30 and the F-test value of the bounds test is 3.997. This value is compared to the critical values of the conventional levels of significance (10% 5% and 1%) of I(0) (non-stationary) and I(1) (non-stationary) limits. The lower and upper bounds of I(0) and I(1) are respectively 3.272 and 4.306 at the 5 percent level. The calculated F-statistic (3.997) is between the lower and upper values, so the outcome is in the inconclusive range but it is very near the upper limit, which, combined with the further diagnostic tests, will be an indication of the long-run relationship.

This finding implies that the variables are cointegrated, i.e. it has a stable relationship of equilibrium over time. In the real world, the financial market development and macroeconomic factors all determine the FDI inflows in the long run, despite the short-term fluctuations. The ARDL bounds method is specifically appropriate in this case since it involves a combination of I(0) and I(1) variables without the need to pre-test similar integration orders hence justifying the estimation of both short-run and long-run dynamics.

Altogether, the bounds test shows that policy relevant financial market variables, particularly equities and bond market development are strong long-term predictors of FDI in Nigeria, which supports the ARDL modeling framework that is used in the present research.

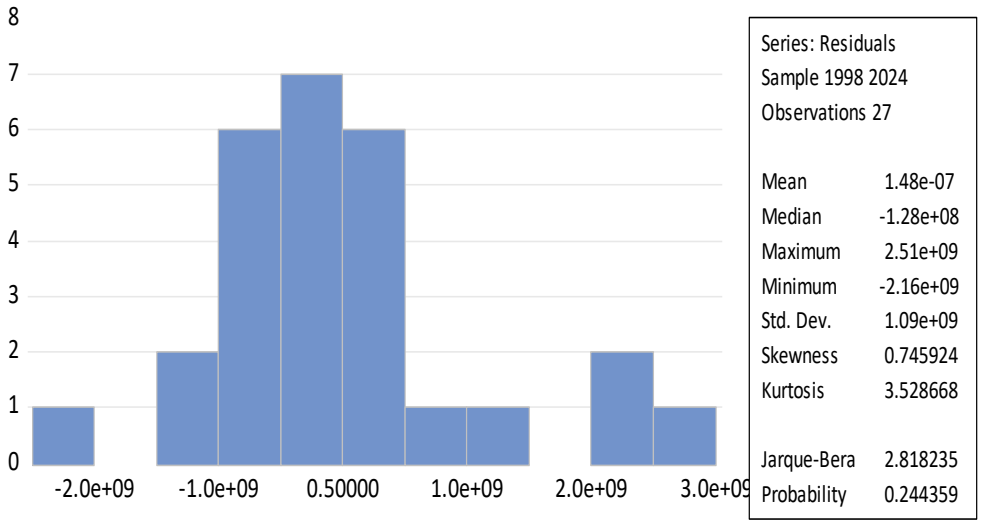

Figure 1 - Residual Normality Test (Histogram and Jarque–Bera Statistics)

The histogram and the statistics show the normality test of the ARDL regression model residues. The residual distribution is approximately bell-shaped with the majority of the values concentrating around the centre and gradually decreasing towards the tails. This visual pattern implies that there is a fairly symmetrical error on both sides though somewhat scattered. The value of skew is positive at 0.7459 which suggests a minor positive skew, i.e., there is a slight longer right tail but the deviation does not change the model. Likewise, the value of the kurtosis, meaning 3.5287, which is near the normal distribution benchmark of 3, indicates a very mild leptokurtosis, meaning that the distribution has fatter tails than the normal curve.

The Jarque Berra statistic also supports the normality of the residues. The Jarque-Braun statistic is 2.8182 with a probability of 0.2444, the null hypothesis of normal distribution cannot be rejected at the 5% level of significance. This implies that the residuals are normally distributed and they do not break the assumptions of the ARDL model. All in all, the findings indicate that errors are well behaved, and hence the estimated model is statistically reliable and can be inferred upon.

Discussion of findings

The empirical finding shows subtle connections between development of the financial market and Foreign Direct Investment (FDI) inflows in Nigeria. The ARDL findings show that the past FDI inflows have a negative implication on the current level of investment as it has a significant negative coefficient of FDI (-1). This observation implies the presence of a partial adjustment process, which is in line with the fact that FDI is a slow way of responding to past investment environment. In a similar manner, Ayinde, Fatai, and Adeyemi (2024) also report that lagged macroeconomic variables are also considered to significantly influence the FDI flows, and this is attributed to the delayed reaction of foreign investors towards the past economic activities, especially in an emerging economy.

Bond Market Development (BMD) does have a mixed short-run impact: the lagged BMD has a negative effect on FDI, and the first-differenced term is positive and significant. This implies that although any previous amount of expansion of the bond market may at first be detractive to foreign investment, possibly through crowding-out effects or because of the apparent increase in government borrowing, more recent growth in bond market activity would stimulate inflows by increasing market liquidity and investor confidence. Similar points are made by Nneka et al. (2025), who state that the long-term beneficial factor of government bond development in stimulating the economic activity is evident, whereas inefficient corporate bond markets can lead to the inhibition of investment.

Equity Market Development (EMD) has a positive and significant influence on FDI in the long-run and the short-run. This is in line with the results of Adewale and Adewole (2024), who note that growth in the stock market promotes economic growth, and thus, foreign capital inflow. This relationship is also supported by the long-run ARDL findings that reveal that there are persistent positive effects of development of equity markets on FDI, and this finding is in line with Khan, Audi, and Ali (2025) who opine that the well-developed financial institutions increase efficiency of inflows of capital in boosting economic growth.

The inflation (INF) is statistically insignificant in the short-run and long-run and therefore indicates that short-term price changes do not significantly discourage FDI in Nigeria. This observation is contrary to some past research, including that of Khan, Audi, and Ali (2025) that observe macroeconomic instability to have a detrimental impact on FDI, but is consistent with the observation that foreign investors tend to focus on market opportunities and financial market indicators rather than moderate inflationary pressures.

In general, the discussion suggests that the equity market and bond market are an important determinant of FDI inflows where the former always exhibit positive effects, and the latter display both the short-term stimulation effect and the long-term crowding-out effect. Such results highlight the significance of balanced financial market development, macroeconomic stability and interventions in policies to facilitate transparency and liquidity in order to maintain and attract foreign investment, which are replicated by previous empirical research.

V. CONCLUSION AND RECOMMENDATIONS

This research was focused on how the development of financial markets, that is bond and equity markets, change Foreign Direct Investment (FDI) inflows in Nigeria in the period of 1996-2024. The analysis was done using ARDL model where both short-run and long-run dynamics are characterized, and the control variables are inflation and exchange rate. The results indicate that development of equity market always has a positive and significant impact on FDI which has brought the significance of stock market development in attracting foreign capital. There is however a mixed impact in bond market development, short term growth in bond market activity leads to an increase in FDI and long-term high levels of bond market expansion may lead to discouragement in investment, perhaps as a result of crowding-out effect or increased perception of government borrowing. Inflows of FDI lagged greatly on current investment implying that foreign investors are slow in reacting to the previous situations. It was found that inflation was not significant and this means that moderate fluctuations in prices do not have a substantial impact on FDI in Nigeria. Comprehensively, the findings indicate the paramount role of effective financial markets and macroeconomic stability in mobilizing the inflows of foreign investment and that policy-impaired equity and bond market development can instigate better inflows of sustained FDI in Nigeria.

The paper proposes that the government should reinforce the bond market structure by enhancing the liquidity and transparency as well as promoting government and corporate bond issuance to secure long term foreign investment. Moreover, to guarantee continuation and growth of foreign involvement; the regulatory authorities ought to pay attention to equity market infrastructure, investor protection, and growth of market capitalization. Moreover, the policymakers are also encouraged to have consistent policies on inflation and exchange rate to minimize the uncertainty and ensure a friendly environment to foreign investors. All these measures will contribute towards improving a stronger financial market ecosystem and assist in the permanent attraction of foreign direct investment into Nigeria.

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