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Impact of Financial Intermediation on the Capital Market and Economic Growth in Nigeria

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Abstract

The significance of a well-developed financial intermediation in improving the economy is highly imperative to Nigeria. More so, financial intermediation through the capital market provides long-term financing designed to encourage economic growth. Given the preceding, this study examined the impact of financial intermediation on capital market and economic growth in Nigeria from 1981 to 2021. Using models incorporating descriptive statistics, unit root tests, cointegration and structural Vector Auto-Regressive (SVAR) model framework. Data were first examined for stationarity (unit root test) using the Augmented Dickey-Fuller (ADF) tests to avoid spurious regression. The results showed that all the variables were stationary at their first difference. The Trace and Max-Eigen statistics showed the presence of three co-integrating equations at a 5% level of significance, implying a long-run relationship between the variables. Findings revealed the existence of contemporaneous negative transmission from financial intermediation and a positive transmission from the capital market to Nigeria's economic growth. The empirical result also showed a positive long-run relationship between credit to private sector, interest rate and economic growth; a positive short-run relationship between broad money supply and economic growth revealed a negative short-run and long-run impact; the relationship between broad money supply and economic growth. Thus, there is a need to expand access to credit and financial services and encourage long-term savings mobilisation and long-term capital for investment.

Keywords: Financial Intermediation, Economic Growth, Capital Market, SVAR

INTRODUCTION

A comprehensive and stable financial system offers financial programmes that will help individuals develop beneficial financial habits and achieve financial inclusivity across the country. A significant engine of economic growth and development of a nation is its capital. The economy is provided financial resources through its intermediation process for financing long-term development projects. The government or private sector institutions could promote these long-term development projects. They are usually in areas such as agriculture, solid minerals, manufacturing, banking, other financial, social services, and other real sector areas. Hence, with efficient financial intermediation in the capital market, the economy can use long-term funds for sustainable growth (Oke & Adeusi, 2012).

A financial intermediary is an institution that intermediates between a service provider and the consumer. It is the institution or individual between two or more parties in a financial context. In theoretical terms, a financial intermediary channels savings into investments. Financial intermediaries work in an economy's savings/investment cycle by serving as financing conduits between the borrowers and the lenders. In the financial system, intermediaries like banks and insurance companies have a huge role since it has been estimated that the banks have a significant proportion of every dollar financed externally. Financial intermediaries are a critical source of external funding for corporate organisations. Unlike the capital markets, where investors contract directly with corporate organisations to create marketable securities, financial intermediaries borrow from lenders or consumers and lend to the companies that need investment. The financial sector is vital to the economy (Oke & Adeusi, 2012).

The capital market clears capital hindrances (Idris, 2020). The Nigerian capital market propels the economy; it is not only funding the projects of best returns to the fund owners. This allocation function is essential in the determination of economic growth. Monsura and Villaruz (2021) fundamentally defined Economic growth as an increase in income per person. Economic growth has three pillars: human capital, physical infrastructure and good governance. Based on the financial requirements to foster economic growth through investments, financial intermediation is fundamental in mobilising funds from savers to borrowers for investment and improved economic growth. In Nigeria, however, the gap between the rich and the poor is wide. Most people live below the poverty line, and interest rate policies, loan facilities, and other financial resources are largely inaccessible to most people willing to invest. For instance, the increasing trend of lending rate, which was 28.53% while the savings rate was 3.94% in 2022, creates a wide margin between lenders and borrowers and most likely may distort economic activities (CBN, 2022). According to CBN (2022), GDP indicates a growing trend amounting to N57780.58 billion, even with stringent guidelines on capital market operations. It is worrisome that the relationship between financial intermediaries through the capital market has yet to be tested empirically; hence, how these financial intermediaries translate into economic growth through the capital market remains unclear. Against this background, this research aims to assess the impact of financial intermediation on Nigeria's capital market and economic growth.

Statement of the Problem

The problem of limited financial resources in Nigeria has continued to linger, attributed to high poverty rates, low-income levels, high lending rates, low savings, and high consumption levels. The primary goal of every economy is to stimulate economic growth and sustainability of its

populace through an effective financial system. Financial intermediation will not necessarily exist if resources are readily available to the users. The capital, which is expected to play an important role in investment, is either inaccessible by the poor masses, who form a greater percentage of the country's population, or have strict conditions for participation. Theoretically, it is established that financial intermediation and the capital market are expected to improve economic performance.

However, having gone through empirical literature which provides information on financial intermediation, capital market and economic growth, Monsura and Villaruz (2021), Manasseh et al. (2021), Ijeoma et al. (2020), Ibrahim (2020), Bamidele et al., (2018); these studies have not captured the transmission from financial intermediation to economic growth through the capital market. Hence, previous studies used Ordinary Least Square regression, Chi-square, and Generalised Method of Moment. Still, this study employed Structural VAR (structural factorisation) to capture the transmission of financial intermediation to economic growth through the capital market in Nigeria.

Objectives of the Study

This study explored the relationship between financial intermediation, the capital market, and Nigeria's economic growth. Specific objectives are to:

i. assess the transmission effect of financial intermediation on economic growth in Nigeria through the capital market.

ii. investigate the extent to which financial intermediation impacts economic growth in Nigeria.

Statement of Hypotheses

$H_{0\,1}$: There is no significant transmission effect of financial intermediation through the capital market to economic growth in Nigeria.

H_{02}: Financial intermediation does not significantly impact economic growth in Nigeria.

Empirical Review

Impact of Capital Markets on Economic Growth

Erasmus et al. (2021) examined how the capital market impacted economic growth in Nigeria from 1989-2019, finding that market capitalisation significantly impacted the country's gross domestic product. The Ordinary Least Squares (OLS) regression method was used by Idris (2020) to evaluate how Nigeria's capital market development affected economic growth from 1981 to 2019. The findings indicated that capital formation requires the expansion of the capital market. Using the OLS method, Onuora (2019) investigated the impact of the capital market on Nigeria's economic growth between 2001 and 2017. The study discovered that the monetary sector, particularly commercial banks, provides funds, but only for a very short period, which significantly limits the ability of private investors to make investments. The research findings indicate no statistically significant positive correlation between specific economic growth metrics and the Nigerian capital market. Alam & Hussein (2019) used time series data spanning 1993 to 2015 to investigate the Effect of the Capital Market on Economic Growth in Oman. Both primary and complex regression

analyses were used in the study. The research indicates a positive correlation between Oman's capital market and economic growth during the studied period. It also discovered that since the money market is not thought to provide these kinds of funding, industrial development will be hampered without a capital market. Mamun et al. (2018) assessed economic growth and the stock market development in Bangladesh between 1993 and 2016; the autoregressive distributed lag (ARDL) bounds testing method discovered that changes in the stock market had an immediate impact on economic growth in both the short and long terms. A bidirectional causal association between the development of the stock market and economic growth was confirmed by Granger causality studies. Idenyi et al. (2017) looked at how Nigeria's economic growth was affected by capital market indices between 1986 and 2016. Using VAR Granger causality techniques and ARDL bounds testing, the study found a positive and statistically significant association between market capitalisation and economic growth.

From 1981 to 2014, Nordin and Nordin (2016) evaluated the capital market's influence on Malaysia's economic expansion. Johansen Juselius' maximum likelihood estimator technique was utilised. Findings revealed that the financial sector can stimulate economic expansion. Yadirichukwu and Chigbu (2014) looked into how Nigeria's capital market affected the country's economic expansion from 1985 to 2012. Regression using multivariate cointegration and error correction techniques were used in the investigation. Two of the four capital market variables examined in the study were found to have a positive correlation with economic growth. The link between economic growth and market capitalisation and total listing, on the other hand, was inverse. Between 1981 and 2010, Oke and Adeusi (2012) investigated how capital market reforms affected Nigeria's economic growth. The study analysed the data using the Johansen cointegration analysis and the OLS regression approach. According to the study, capital reforms favourably affected economic expansion.

Impact of Financial Intermediation on Economic Growth

Monsura and Villaruz (2021) assessed the connection between financial intermediation and the Philippines' economic expansion from 1986 to 2015. The multiple regression analysis found that financial intermediation had a significant impact on economic growth, measured by an increase in real GDP per capita. Using quarterly data from 1994 to 2018, Manasseh et al. (2021) studied financial intermediaries and Nigerian economic growth. The OLS regression technique was used for the estimation, and a positive relationship between bank deposits and GDP was found. Ibrahim and Law examined the financial intermediation costs in a dual banking system (2020). Unbalanced panel data from 1997 to 2015 were used in the study.

The static panel model was selected for the investigation, and it was discovered that operating expenses were consistently positive and significant in all regressions, as well as that market power and non-interest rate income may have a substantial role in explaining bank profits. The effect of financial intermediation on Nigeria's economic growth from 1990 to 2018 was studied by Ijeoma et al. in 2020. The study used OLS techniques to determine the impact of financial intermediation indicators on Nigeria's economic growth and discovered a significant relationship between

financial intermediation indicators and Nigerian economic growth. From 1981 to 2016, Bamidele et al. (2018) investigated how financial intermediaries affected the growth of Nigeria's capital market. The ARDL method was used in the study. The study discovered that the money supply and loans to the private sector boosted the growth of the capital market. The impact of Nigeria's financial intermediation on economic growth from 1995 to 2014 was assessed by Okoro et al. (2018). The analyses employed parametric statistics and coefficient of correlation. The study's results indicate a strong correlation between output growth and financial intermediation. Ogbonna (2018) investigated how Nigeria's economic growth was impacted by financial deepening from 1970 to 2015 using the forecast error variance decomposition, impulse response function, and vector error correction model; the study discovered a consistent long-term correlation between financial deepening and economic growth. Tonye and Andabai (2014) used data from 1988 to 2013 to investigate the connection between financial intermediation and economic growth in Nigeria.

Regression analysis was used in the investigation. According to the research, banks that use a high level of financial leverage in conjunction with borrowed money and their treasury responsibilities emphasize all the methods used to source deposits from surplus units of the economy and direct them toward deficit units. Shittu (2012) investigated financial intermediation and economic growth in Nigeria from 1970 to 2010. Using the Engle-Granger approach, the study discovered that financial intermediation contributed positively to Nigeria's economic growth. The study conducted by Yusifzada and Mammadoda (2015) looked at the economic growth and financial intermediation of developed, developing, and rising nations between 2004 and 2011. Using a dynamic panel GMM regression, the study discovered that the influence of four financial development characteristics varies with financial development level. The study also discovered that, up to a certain point, having access to financing fosters growth; after that, further expansion of that access threatens economic progress. The function of financial intermediaries in the capital market was studied by Salehi (2008). According to the study, financial intermediaries arose to lessen information asymmetry, extend corporate control, manage risk, and encourage saving, which employed primary data from Iran and the Chi-square test for data analysis. The study concluded that while Iranian financial intermediaries are crucial to the capital market, the Tehran Stock Market's current state could be more suitable. Financial intermediation's contribution to employment and economic growth was evaluated by Gross (2001). The study discovered that one of the elements impacting the financial sector's deepening beneficial effects on growth and employment is the capacity of businesses to raise capital. The study also demonstrates that the inability to establish a business independently is a significant barrier to self-employment, with many job creation chances being missed due to insufficient starting capital.

Knowledge Gap

This study covers the gap in the literature on the impact of financial intermediation on Nigeria's capital market and economic growth, as there is a lack of empirical research on this topic, highlighting the need for further research.

Theory Underpinning the Study

The theory of financial intermediation propounded by Allen and Santomero in 2001 will serve as the basis for the research project. According to what they wrote, the growth of intermediaries usually results in the expansion of financial markets, and the expansion of the financial sector causes an expansion of the economy.

MATERIALS AND METHODS

Model Specification

The models listed below are based on the theory of financial intermediation proposed by Allen and Santomero in 2001:

LGDP = f(LBMS, LCPS, INR, LMKC)……2.1

LMKC = f(LCPS, INR, LBMS) ……2.2

The broad money supply (LBMS) and credit to private sectors (LCPS) variables from Bamidele et al. (2018), market capitalisation (LMKC) from Idris (2020), gross domestic product (LGDP), and interest rate (INR) based on Ijeoma et al.'s study (2020) are all added to the modified model.

Here are some further details on the econometric model:

$RLGDP = \beta 0 + \beta 1 LBMS + \beta 2 LCPS + \beta 3 INR + \beta 4 LMKC + et$ ……2.3

The model's SVAR form is given below to examine the transmission effect.

LBMS →INR →LCPS →LMKC →LGDP……..……2.4

Kinds of Data and Data

Central Bank of Nigerian Statistical Bulletin and the National Bureau of Statistics publications provided the time series data on the GDP, broad money supply, credit to private sectors, interest rate, and INR. The Nigerian Stock Exchange provided data on market capitalisation (LMKC). The study's data source included information from 1981 to 2021.

Techniques of Analysis

The tests listed below were used in this investigation: Diagnostic tests include unit root, variance decomposition, lag order selection, cointegration, vector autoregressive (estimate of structural factorisation), impulse response, and tests for variation.

RESULTS AND DISCUSSIONS

Unit Root Test

The Augmented Dickey-Fuller test indicated the stationarity of the variables in Table 3.1.

Table 3.1: Results of the Stationarity Test for Variables

Variable	At level			At 1st difference			Integration on order
	ADF statistics	Prob.	Inference	ADF statistics	Prob.	Inference	
LGDP	0.179334	0.9970	NS	-3.673978	0.0363	S	I(1)
LMKC	-1.188195	0.8994	NS	-4.865888	0.0018	S	I(1)
LCPS	-0.742240	0.9626	NS	-4.530871	0.0044	S	I(1)
INR	-3.259645	0.0878	NS	-6.367859	0.0000	S	I(1)
LBMS	-0.088541	0.9934	NS	-4.213874	0.0099	S	I(1)

S stands for stationary, and NS for non-stationary.

Source: a compilation of the writers taken from E-views 10

Since all probability values are greater than 5% at levels but decrease to less than 5% at the first difference, the unit root test result in Table One demonstrates that all variables in the given model are stationary at that point; this suggests that all of the variables were integrated to the first order, or {I(1)}.

Cointegration Test

Table 3.2: Max-Eigen Statistic and Trace Statistics Results of the Johansen Cointegration

Unrestricted co-integration rank test (trace)				
Hypothesized No. of CE(s)	**Eigenvalue**	**Trace Statistic**	**0.05 Critical Value**	**Prob.****
None *	0.827304	154.4165	88.80380	0.0000
At most 1 *	0.710496	89.43629	63.87610	0.0001
At most 2 *	0.561646	43.57165	42.91525	0.0429
Unrestricted co-integration rank test (Max-Eigen Statistic)				
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.827304	64.98026	38.33101	0.0000
At most 1 *	0.710496	45.86464	32.11832	0.0006
At most 2 *	0.561646	30.51497	25.82321	0.0111

Source: compilation created by the author and taken from E-views 10

Since the maximum Eigenvalue and trace tests have statistics higher than their 5% critical values, Table 3.2 shows that these tests have three co-integrating equations. As a result, the null hypothesis is disproved, suggesting that the model has a long-term link.

The Structural VAR Output

Table 3.3: Estimates of Structural VAR

	LGDP	LMKC	LCPS	INR	LBMS
LGDP	1	0	0	0	0
LMKC	[-1.090061] (0.0133)	1	0	0	0
LCPS	[-0.133648] (0.6673)	[-0.049214] (0.6434)	1		0
INR	[-46.41092] (0.1116)	[9.632186] (0.1256)	[14.62040] (0.1266)	1	
LBMS	[-0.230799] (0.1867)	[-0.144157] (0.0114)	[-0.531999] (0.0000)	[0.000869] (0.5428)	1

Source: a compilation of the writers taken from E-Views 10

Table 3.3 shows a significant 1.09% growth in market capitalisation (LMKC) with a probability value of 0.0133, less than 5%, for every 1% increase in LGDP. A negligible positive reaction of LCPS to LGDP is indicated by the private sector's credit response to shocks to the LGDP. The response of INR to shocks to the LGDP is favourable. The broad money supply also shows an insignificant positive reaction to LGDP shocks.

The Impulse Response Functions

Below is a discussion on the impulse response, which displayed the impact of shocks on the present and future trajectories of the variables under consideration:

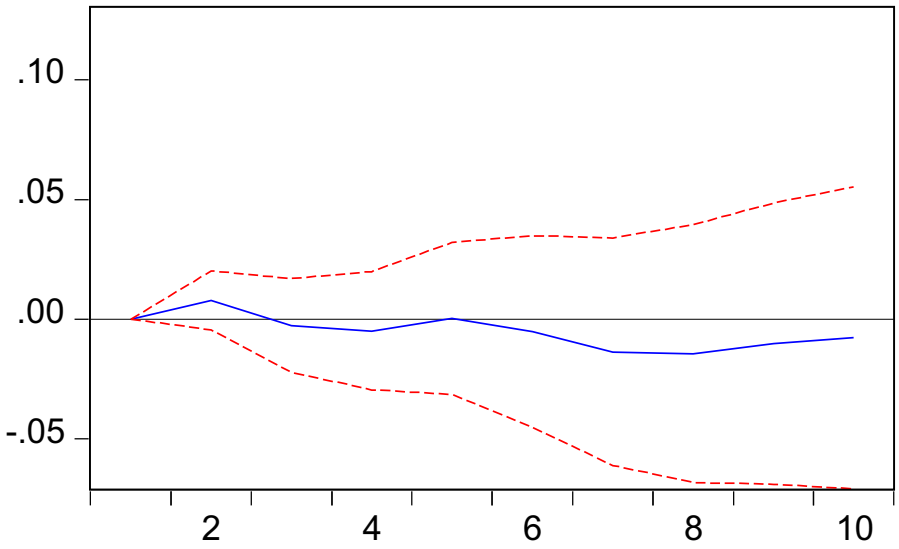

Figure 3.1: GDP (economic growth) in response to LMKC (market capitalization).

Source: a compilation of the writers taken from E-Views 10

The first year of the projection saw an increase in GDP due to the shocks to LMKC, but after that, the reaction of LGDP remained negative until the ninth year.

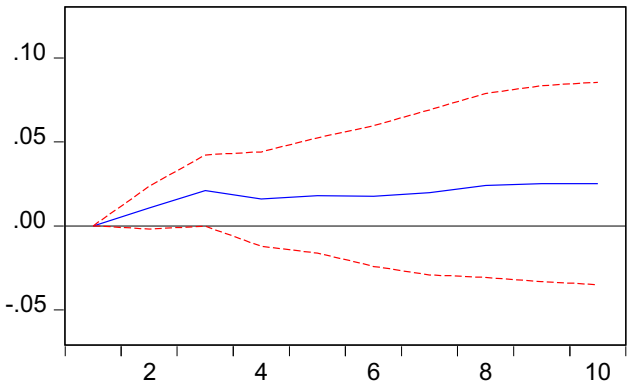

Figure 3.2: The GDP's response to credit to the private sector (LCPS).

Source: a compilation of the writers taken from E-Views 10

In the first three years of the forecast, the response of LGDP to shocks in LCPS rises to positive and stays there until the tenth year;

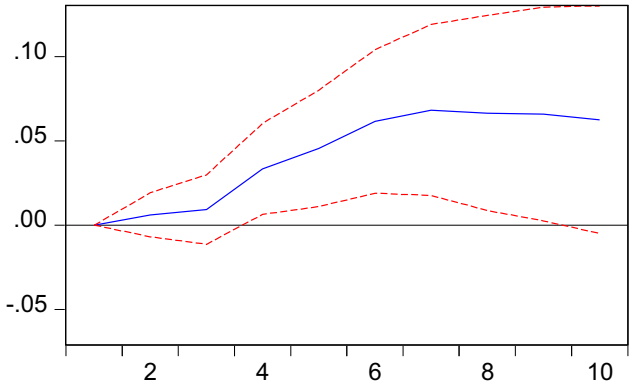

Figure 3.3: GDP (economic growth) as a function of interest rate (INR)

Source: a compilation of the writers taken from E-Views 10

From the first to the last year of the prediction, there was a positive response of the LGDP to the INR, which was rising comparatively during the forecast years;

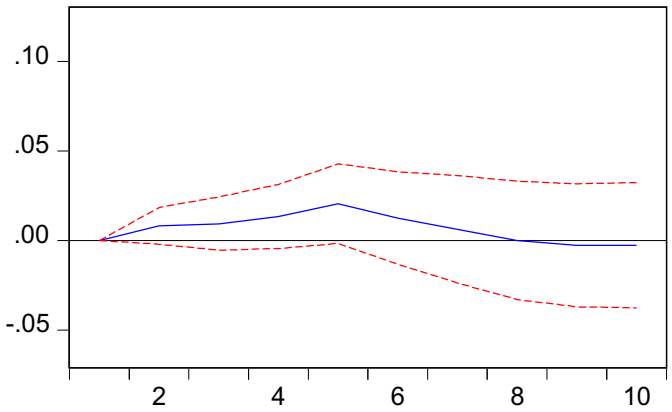

Figure 3.4: The GDP's reaction to the wide money supply (LBMS)

Source: a compilation of the writers taken from E-Views 10

In the end, the reaction of LGDP to LBMS began to increase favourably from the first to the fifth year and then declined in the following predicted years, turning negative from the eighth to the tenth year.

Diagnostic Tests

According to the VAR Residual Serial Correlation LM Tests, Rao F-statistics of 1.180661 and 0.893667 have probability values of 0.3021 and 0.6108 at lags 1 and 2. It can be inferred that there is no autocorrelation in the model's residual when the probability values exceed 5%. The model's residuals are likely homoscedastic, as suggested by the heteroscedasticity test, which produced a Chi-square statistic of 468.8530 at a probability value of 0.2604, higher than 5%. Since the probability value is more than a 5% significance level, 11.28511 Jarque-Bera Statistics with a probability value of 0.3357 indicates a normal distribution of residual. The VAR will likely satisfy the model's stability criteria as no root of the characteristic polynomial in Figure 3.5 lies outside the unit circle.

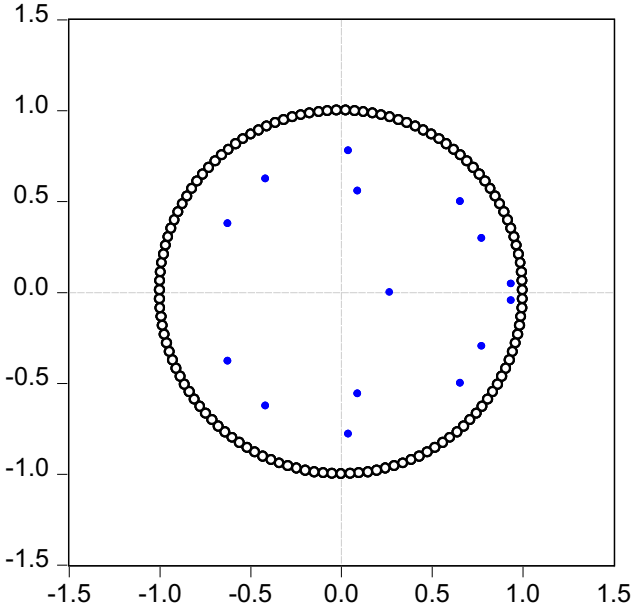

Figure 3.5: AR characteristic polynomial's inverse root

Source: extracted from E-views 10 output

DISCUSSION

This result indicates that LBMS insignificantly reduced INR at 0.0008% as INR insignificantly crowded out LCPS at 14.625%, based on Table 3 for the transmission. At 0.046%, LCPS is not very congested in LMKC. However, at 1.09%, LMKC was considerably crowded in LGDP.

LBMS → INR → LCPS → LMKC → LGDP

The result indicates that while there is a positive transmission from market capitalisation to economic growth in Nigeria, there is a negative transmission from interest rates and credit to the private sector through the channel of the broad money supply. The null hypothesis that financial intermediation through the capital market has no discernible impact on economic growth in

Nigeria is refuted by this conclusion. Ijeoma et al. (2020) investigated the impact of financial intermediation indices on economic growth, while Alam and Hussein (2019) concentrated on the influence of the capital market on economic growth. However, this study showed that market capitalisation is how financial intermediation contributes to economic growth.

The second hypothesis, according to the impulse response functions, that financial intermediation has no significant impact on economic growth in Nigeria is refuted by the findings that economic growth responds positively to the broad money supply, credit to the private sector, and interest rates for the majority of the ten-year forecast period, despite using different variables and different methods. Immediately, the shock from the broad money supply caused a negative response from interest rates, which in turn caused a negative response from credit to the private sector. However, the shock from credit to the private sector results in a positive response from market capitalisation and the shock from market capitalisation causes a positive response from economic growth.

CONCLUSION

The transmission effect from financial intermediation through the capital market to economic growth is concluded. Broad money supply, interest rate, and credit to the private sector are examples of financial intermediary variables that react negatively to shocks. In contrast, market capitalisation responds positively to shocks from credit to the private sector, positively impacting economic growth. On the other hand, market capitalisation's initial positive reaction eventually turns negative.

According to the short-term results, a shock to Nigeria's financial intermediation (private sector lending, interest rates, and broad money supply) primarily causes economic growth. Furthermore, the model contains a long-term relationship that makes a shock in

Recommendations

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