

FINANCIAL LIBERALISATION IN NIGERIA: THE INTERPLAY OF STOCK MARKET CAPITALISATION, BANK LENDING, AND DEPOSIT INTEREST RATES (1985-2021)

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Abstract

The paper examines the impact of deposit rates on savings, lending rates on credits and market capitalization of Nigerian Exchange group limited from 1985 to 2021, using co-integration and vector error correction approach. The specific objectives were to estimate the short-and long-run association as well as the error correction mechanism of lending interest rate and deposit interest rate and stock market capitalization in Nigeria. The outcome of the exercise validated the hypothesis of financial liberalisation theory that deposit rates on savings, lending rates on credits on market capitalization of Nigerian Exchange group limited. Deposit interest rate and lending interest rate have significant explanatory power for stock market capitalization, which is consistent with our expectations in line with financial liberalization theory in Nigeria. The regulatory body should mandate banks to channel their mobilised savings to investors in form of loans at reasonable interest rate. Hence, the pointer should be to identify those constraints and bottlenecks that are making it difficult for banks to make loans available to investors. The issue of high interest rate with hidden transaction costs must be vigorously addressed by the monetary authorities; Monetary authorities should pursue policies that will encourage the saving culture of the people. This could be done by increasing the deposit rate which would lure people to deposit their money in banks thereby increasing the supply of loanable funds. This would lead to a fall in interest rate and eventually rise in investment in stock market development.

Keywords: Stock Market Capitalisation, Deposit Interest Rate, Financial Liberalisation Theory Lending Interest Rate.

Introduction

The stock market has seen astronomical growth in its stock market capitalization since 2008, where it recorded ₦9.83trillion compared to the latest market capitalization of about ₦27trillion. This represents over 100 per cent growth in over 14 years in August, 2022. Two main factors can alter a company's market capitalization significant changes in the price of a stock or when a company issues or repurchases shares. Market Capitalisation is arrived at by multiplying the share price by the number of shares outstanding. So when a stock's price rises, so too does its market capitalization. Market capitalization is the aggregate valuation of the company based on its current share price and the total number of outstanding stocks.

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Stock markets have received a great deal of attention, both as a source of financial development and eventually economic development, and in the context of large swings in stock market valuation. The depth of a stock market as captured by the market capitalization—is an important measure of one aspect of financial development, much in the same way as monetization or the amount of private sector credit measure the depth of financial intermediation. In fact, commercial banking and stock markets both contribute in a major way to the transformation of savings into investment, thereby enabling financial and economic development.

Stock market contributes to the capital allocation process by enhancing the set of financial instruments available to investors to diversify their portfolios providing an important source of investment capital at relatively low cost. A well-functioning stock market, that allows investors to diversify away unsystematic risk, will increase the marginal productivity of capital. Stock markets can also exert control over managers through the voting mechanism and the takeover mechanism. Another important aspect through which stock market performance may influence economic growth is risk diversification. It's suggested that international risk sharing through internationally integrated stock markets improves the allocation of resources and accelerates the economic growth rate. In addition, stock markets that are more effective at pooling the savings of individuals can profoundly affect the real economy by increasing savings, exploiting economies of scale, and overcoming investment indivisibilities. Market capitalisation (also known as market value) is the share price times the number of outstanding shares (including their multiple classes) for domestic listed companies. This excludes investment funds, unit trusts and firms whose primary business purpose is to hold shares of other listed companies. Since the market crash of 2008, when the Nigerian Stock Market traded at an All-Share Index (ASI) peak of over 66,000 basis point, the market has not fully recovered from that crash. However, in recent years, we are seeing a peak in the performance of the market.

Interest rate in every economy is an important monetary policy instrument aimed at promoting economic growth and development especially through investment process. The short- and long-term variability in interest rates is a prominent feature in any economy. Interest rate changes in response to a different of economic conditions such as changes in federal policy, crises in domestic and international financial markets and changes in the prospects for long term economic growth, inflation rate, business environment and investment.

Savings deposit is interest bearing deposit account held with financial institutions. The increase or decrease of savings deposit rate could influence the attention of investors to either buy or not to buy stock traded which could determine the value of market capitalization. A Stock market has been a major preoccupation of the financial sector, due to its key role in the mobilization of capital, and resources into productive sectors. Price fluctuation in stock market can be explained by change in many factors, interest rate is one of these factors, generally, it is considered as the cost of capital; from the lender point of view, it is the fee charged for lending money (lending rate), while from borrower's point of view, it is the cost of borrowing money (borrowing rate). The relationship

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between interest rates and stock markets, has over the years, gained reasonable academic attention from students, researchers, regulators, stock brokers, to mention but a few, because it provides an important implication for government monetary policy, and investment decisions, through financial securities valuation.

The interest rate used in the study are the lending interest rate (LIR) and deposit interest rate (DIR). LIR meets the short-and medium-term funding needs of the private sector. This rate is usually determined by lenders' creditworthiness and funding targets. Prime and Maximum Lending Rates values are summed up and divided by two to use the average lending rate. Recently Central bank of Nigeria (CBN) Monetary Policy Committee voted to increase its benchmark interest rates to 14% from 13%. This latest increase in July 2022 will have a significant impact on the economy, especially in the area of lending for individuals and businesses in the Nigerian economy. The monetary policy rate (MPR) is seen as a benchmark rate in the financial services sector as it is the rate at which the CBN lends money to banks and vice versa. MPR is also used by the CBN to control the supply of money in the economy. An increase in MPR will lead to an increase in interest rates on overdrafts, corporate loans, refinanced loans, unending and other forms of lending facilities offered to businesses. Currently prime lending rates stand at about 12% up from 11% since the CBN increased MPR in May 2022. It is likely that these rates will continue to inch higher. Conversely, one will expect savings deposit rates to also rise but this hardly occurs during a rise in monetary policy rates. Savings deposit rates have fallen to under 5% for one-year fixed deposit rates according to data from the CBN.

The main objective of the study is to examine the effect of changes in lending interest rate (LIR) and deposit interest rate (DIR) on stock market capitalisation in Nigeria. Specifically, the study aims: (1) To examine the effect of lending interest rate on stock market capitalisation. (2) To determine the effect of deposit interest rate on stock market capitalisation. Hypotheses

Variables	Description	Source
Stock Market Capitalisation (SMC)	SMC is proxied by Market capitalization (MCAP) that is employed as the dependent variable in the model. It is a performance measurement for	Nigeria Exchange Group Statistical Bulletin
	Stock Market, and is valued in Billions of Naira.	

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Lending Interest Rate	Monetary policy rate: Monetary policy rate (MPR) was adopted in the study as an independent variable. It is the interest at which the Central Bank of Nigeria lends to the money deposit banks. It is an interest rate used to control inflation in an economy.	Central Bank of Nigeria CBN Statistical Bulletin
Deposit Interest rate	Deposit market rate: Deposit market rate (DMR) was also adopted in the study as an independent variable. It is an interest rate that is paid by financial institutions to depositors holding an account.	Central Bank of Nigeria CBN Statistical Bulletin

Lending Interest Rate (LIR)

It is defined as the rate paid for the use of money or credit before taking into consideration the inflation rate over the rental period. In other words, it embeds both the effects of inflation and uncertainty. That is, the interest rates were not adjusted for changes in purchasing power caused by changes in the price level. In fact, inflation can reduce the purchasing power of returns on any investment. In addition, inflation causes the purchasing power of the principal to decline. For example, if inflation is 5.0 per cent per year, the purchasing power of the N1, 000 principal falls by N50 each year. Interest rate as the price that a borrower has to be paid in order to have access to the use of cash, which he or she does not own, and the return that a lender enjoys for foregoing consumption or liquidity in the current period. This definition connotes interest rate as both a cost and a reward. Interest rate is a cost of capital, which influences the demand for loanable funds by borrowers. When conceived in this way, interest rates are seen as lending rates on different forms of loans and advances in the financial market.

Deposit Interest Rate (DIR)

The savings deposit rate is the interest rates paid by banks and other deposit taking institutions for cash deposited by savings deposit account holders. The payment of interest on the account is subject to the restriction that funds could only be withdrawn from the account after seven days' notice. This restriction is however, seldom applied by banks nowadays, probably to gain competitive advantage in deposits mobilisation.

According to Shaw (1973) Financial Liberalization theory, financial repression paradigm, government's effort to promote savings by such indiscriminate measures has repressed the

financial system. This discourages financial intermediation. Thus, they call for financial liberalisation (the removal of ceilings on interest rates among others) as a growth promoting policy. According to them, the removal of interest rate ceilings will raise aggregate savings because the interest rate elasticity of private savings is positive. Interest rate policy in Nigeria is perhaps one of the most controversial of all financial policies. The reason for this may not be far-fetched because interest rate policy has direct bearing on many other economic variables including investment decision. Interest rate plays a crucial role in the efficient allocation of resources aimed at facilitating economic growth and economic development of an economy as well as a demand management technique for achieving both internal and external balances.

Interest rate policy is among the emerging issues in current economic policy in Nigeria in view of the role it is expected to play in the deregulated economy by inducing savings which can be channeled to investment and thereby, increasing employment, output and promotes efficient financial resource utilization. Also, interest rate can have a substantial influence on the rate and pattern of economic growth by influencing the volume and disposition of savings as well as national productivity. The financial system of most developing countries like Nigeria has come under stress as a result of economic shocks of 1980s and in recent time the global financial crisis of 2007. The financial repression largely manifested through indiscriminate distortions of the financial prices, including interest rates. This tends to reduce the rate of growth and the real size of the financial system. More importantly, financial repression has retarded development as envisaged by Shaw (1973). This led to insufficient availability of investible funds, which is regarded as a necessary catalyst for promoting investments in an economy

The paper is structured as follows. Section 2 follows the introduction and provides a literature review on relationship between deposit interest rate and lending interest rate with stock market capitalization. Section 3 presents regressions analysis on deposit interest rate and lending interest rate (regressors) for stock market capitalization (dependent variable). Section 4 offers some conclusions and recommendations.

Financial Liberalisation Theory

The financial liberalization was propounded by McKinnon and Shaw in 1973, and states that the liberalization of the financial sector will equally increase savings, stimulate investments and automatically bring about growth in the economy. McKinnon (1973) and Shaw (1973) asserted that in developing economies, when lending and deposit rates are liberalized, it will encourage savings among the populace, and in turn, spur productive investments and eventually economic growth. The ideological bed seed of McKinnon (1973) and Shaw (1973) centered on lessening government financial repression, by permitting the market to regulate lending and deposit rates, as well as the suspension of credit control by financial authorities, as it will result in high consumption, low savings, low investments and declined in economic growth and performance. Thus, the McKinnon–Shaw

proposition is that for an economy to grow, greater efficiency in capital accumulation and allocation, regulation of interest rate, credit control, as well as other restrictive financial measures should be removed.

However, McKinnon (1973) and Shaw (1973) proffered that the liberal intermediation between the surplus economic units (savers) and the deficit economic units (investors) as well as the development in the financial system will increase the desire to save and invest. They further asserted that increased financial intermediation between savers and investors will provide the impulse for economic growth more directly, as liberalization will bring about expansion, improvement and integration of the nation's, thus, influencing saving, investment and growth positively. Moreover, the McKinnon-Shaw proposition further argue that higher deposit rate tends to encourage savings among the banking and non-banking populace, thus stimulate the channeling of funds to the most economic productive enterprises, as well as facilitating technical innovation, growth and development in the economy. On this note, this empirical study is anchored on the finance

The theoretical background on interest rate and investment behaviour can be attributed to the seminal work of McKinnon and Shaw in the early 1970s'. McKinnon and Shaw postulated

that financial repression had retarded the growth of many less developed countries (LDCs). They emphasised on interest rate policy, which often resulted in the imposition of below market rates thereby creating a disincentive to save and retarding the process of financial deepening. They identified that investment function responds negatively to the effective real loan rate of interest and positively to the growth rate. Hence, given this backdrop, McKinnon and Shaw argued stalwartly for interest rate liberalisation as an important input into the process of growth and development. Therefore, the increasing acceptance of the model eventually led to financial reform becoming a standard element in structural reform programmes recommended by international financial institutions.

Dusenberry's Financial Theory Of Investment

Dusenberry in his book, Business Cycle and Economic Growth gave another version of the financial theory of investment known as the cash flow theory. In his version, he integrates the profit theory and the acceleration theory of investment. He emphasises that the aggregate cash flow is the main determinant of investment. Dusenberry has based his theory on the following propositions that: gross investment starts exceeding depreciation when capital stock grows; investment exceeds savings when income grows; and the growth rate of income and the growth rate of capital stock are determined entirely by the ratio of capital stock to income. Dusenberry regards investment as a function of income, capital stock, profit and capital consumption allowances. All these are independent variables and can be represented as:

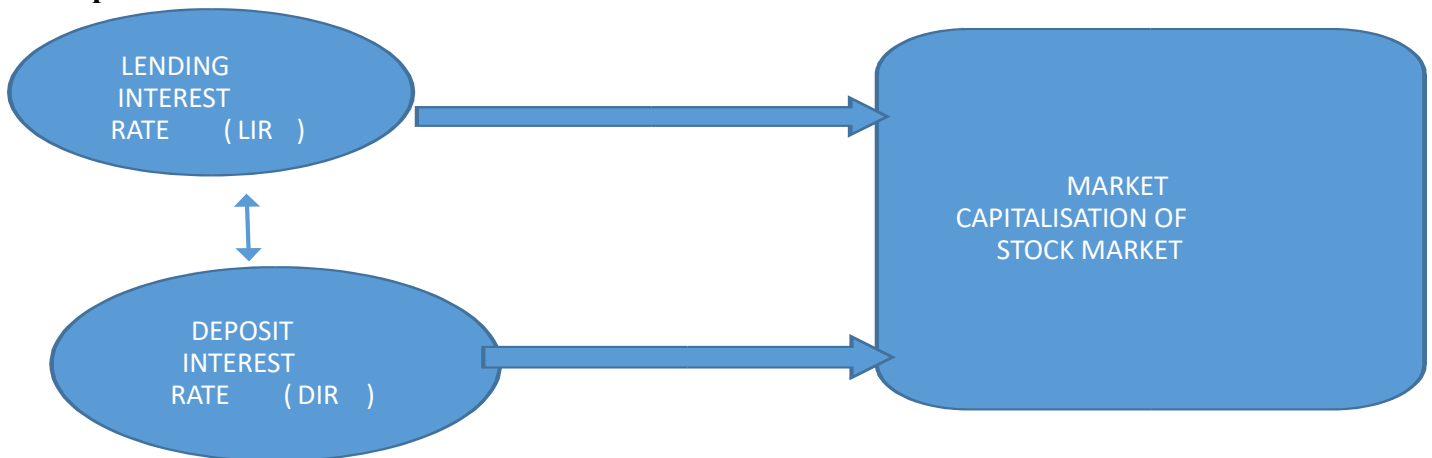
The profit theory of investment regards profits, in particular undistributed profits, as a source of internal funds for financing investment. Investment depends on profits and profits, in turn depend on income. In this theory, profits relate to the level of current profits and of the recent past. If total income and total profits are high, the retained earnings of firms are also high, and vice versa. Retained earnings are of great importance for small and large firms when the capital market is imperfect because it is cheaper to use them. Thus, if profits are high, the retained earnings are also high. The cost of capital is low and the optimal capital stock is large. That is why firms

prefer to reinvest their extra profits for making investments instead of keeping them in banks in order to buy securities or to give dividends to shareholders. In contrast, when their profits fall, they cut their investment.

Keynesian Liquidity Preference Theory

The Keynesian liquidity preference theory determines the interest rate by the demand for and supply of money in a stock theory. It emphasized that the rate of interest is purely a monetary phenomenon. It is a stock analysis because it takes the supply of money as given during the short run and determines the interest rate by liquidity preference or demand for money. The Keynesian theory implies that low interest rate as a component of cost administered is detrimental to increase savings and hence investment demand. They argue that increase in the real interest rate will have strong positive effects on savings which can be utilized in investment, because those with excess liquidity will be encouraged to save because of the high interest rate, thus banks will have excess money to lend to investors for investment purpose thereby raising the volume of productive investment.

Conceptual Framework



Source: Authors' theoretical intuition

Theory Intuition and expected signs

Table 1: Theory Intuition and Expected Signs

Independent variables	Theory Intuition	Expected Sign
Lending Interest Rate (LIR)	Increase in lending rate will intuitively impact on the market capitalization of stock market	-
Deposit Interest Rate (DIR)	Increase in deposit rate will intuitively impact on market capitalization of the stock market	-

Source: Researcher's composition.

Empirical Review of Literature

Relationship between interest rate and market capitalization of stock market

Mordi et al. (2019) documented some robust evidence on interest rate pass-through in Nigeria. Their work confirms, among others, that a long-run relationship exists between the MPR and each of prime lending and savings deposit rates, in spite of significant structural breaks occurring in the co-integrating vectors at different periods. The study further shows that the transmission of changes in MPR to the retail market is not complete and that bank retail rates (except the savings rate) adjust symmetrically to changes in the policy rate. This, they argued, suggests that changes to the savings rate depends on the nature of the shock to the policy rate. Positive shocks in the policy rate get transmitted wholly to the savings rate in two months in contrast to eight months for negative shocks. They further find that it takes about fourteen months for shocks to the policy rate to be passed fully to the prime lending rate, while the full impact on the 6-month deposit rate takes place in about eleven months.

Matousek and Solomon (2018) employed the generalized method of moments (GMM) two-step estimator, to investigate the impact of the Central Bank of Nigeria's (CBN) bank restructuring policies of 2002 - 2008 on bank lending channel of transmission and found that larger and more capitalized banks are less sensitive to changes in monetary policy. Osadume (2018) examined how monetary policy rate and other discount rates affect development in Nigeria. The study documented an indication that discount rates – represented by interest and monetary policy rates – have a significant short-run impact, and positive and significant long-run impact on economic development with substantial speed of adjustments.

Bassey et al. (2018), established the existence of long-run relationship of the monetary policy instruments (open market operations (OMO) and CRR) with the MPR, and argued that the MPR could serve as a veritable instrument for the control of money supply and effective monetary policy management in the economy. Okaro (2011) also showed the important role of the interest rate policy in Nigeria by demon-strating that credit is an important part of the transmission process of Nigerian monetary policy.

Asaleye et al. (2018) in a study spanning 1981 to 2016 explained how shifts in the central bank's monetary policy influence economic growth as well as the level of employment in

Nigeria. The study which made use of autoregressive distributed lag and structural vector autoregressive models showed that during the initial periods, changes to monetary policy had a greater impact on GDP than they had on unemployment, but this trend was reversed at later periods when the impact on unemployment became larger. The findings did not give any indication of a long run relationship when output is explained by other variables while a long run association is found when unemployment is explained. The indicator of monetary policy was seen to be very important in explaining unemployment both in the near term and in the long term.

Anwar and Nguyen (2018) examined the transmission mechanism of monetary policy in Vietnam using quarterly data from 1995 to 2010 in a structural vector autoregression (SVAR) method. They reviewed the economy's response to shocks in domestic and foreign monetary policy and found that the credit channel is important

Etale and Tabowei (2019) ascertain the connection among economic growth and interest rate in Nigeria by measuring inflation rate, GDP, interest rate and exchange rate in Nigeria between 1980 and 2014 with the application of error correction mechanism approach. Insignificant and inverse link was found among the variables measured in the study.

Priscilla and Ezeanyej (2019) researched the existing link in financial growth and economic expansion in Nigeria. The research employed var Granger causality and block wald test to measure RGDP, credit to private sector, security market capitalization, liquidity ratio and real interest ratio from 1986 to 2017. The outcome revealed a positive association among market capitalization and interest rate.

Adekunle et al. (2018) examined economic growth and interest rate nexus in Nigeria between 1981 and 2016. Interest rate was used as a predictor while GDP was used as predicted variable. The research applied ARDL approach. Inverse association exists among the variables in consideration.

Etale and Tabowei (2019) analyzed macroeconomic forces that could have influence on stock market capitalization in Nigeria between 2001 and 2018. Method of regression was utilized to find out the connection between GDP, exchange rate, interest rate, inflation rate and security market capitalization. The study revealed that, GDP had a positive significant influence on security market capitalization; exchange rate had a significant inverse effect on market capitalization while inflation rate and interest rate have insignificant downbeat influence on market capitalization.

Azeez and Obalade (2019) ascertained macroeconomic forces influence on security market development in Nigeria by measuring banking subsector improvement, security market liquidity, FDI and income level between 1981 and 2017. With the aid of autoregressive distributed lag cointegration technique, it was revealed that stock market improvement was not explained by the predictor variables.

Demir (2019) investigated macroeconomic influences on stock market fluctuations in Borsa Istanbul in Turkey stock market from 2003 to 2017 with autoregressive distributed lag bound test. The study tests the relationship between domestic currency, portfolio investment, FDI, interest rate, crude oil prices and security market attainment. Domestic currency, portfolio investment and FDI were responsible in raising the stock market achievement while interest rate and crude oil prices were found inversely associated with security market attainment.

Model Specification and variables

$MCAP = f(LIR, DIR)$

Where;

MCAP = Stock Market Capitalisation of Nigerian Exchange Group

LIR = Lending Interest Rate

DIR = Deposit Interest Rate

The ordinary least square regression model based on the above function is;

$$MCAP = a + b_1LIR + b_2DIR + u$$

Where;

a = Regression constant or estimate b_1 - b_2 = Unknown parameters or regression coefficients u = Stochastic error term

Model 1

Hypothesis to be tested

H0: MCAP does not depend on LIR

H1: MCAP depends on LIR

Model Specification:

$$MCAP = f(\text{lending interest rate})$$

$$MCAP = a + b_1LR + u$$

Where:

a = Y intercept

b_1 = Effect of lending interest rate on MCAP

LER = Lending interest rate

u = Random error

Model 2

Hypothesis to be tested

H0: MCAP is not a function of DIR

H1: MCAP is a function of DIR

Model Specification:

$$MCAP = f(\text{Lending Interest rate, Deposit Interest rate})$$

$$MCAP = a + b_1LIR + b_2DIR + u$$

The variables of this study consisted the dependent and the explanatory. The dependent of this study was the market capitalization of the Nigerian Stock Exchange. While Lending Interest

Rate and Deposit Interest rate are the independent variable. The variables of this study were extracted from the Central Bank of Nigeria (CBN) statistical bulletin. The variables covered a period of 1985-2021, (37 years). The

study intended to make the work as current as possible by adopting up-to-date information and to capture a longer period.

The theoretical application of this study is the financial liberalisation theory. The theory holds that market performance response to the macroeconomic environment such as interest rate. The theory implies that Lending Interest Rate and Deposit Interest rate fluctuations affects stock market performance. The theory has a connection with interest rates announcement, and the announcement rates affect the memory response of stock market performance. Although, with the shocks of monetary policy rates and crash or selling or buy sentiments in the stock market in Nigeria it needed to be empirically examined and investigated.

Data and Methodology

The data employed were obtained from Statistical Bulletins of the Nigerian Exchange Group (NGX) Limited, Central Bank of Nigeria and the National Bureau of Statistics (NBS). The study period covered from 1985 to 2021.

Econometric techniques such as unit root test, co-integration, and error correction model which combine both the long-run and short-run dynamics was applied. This helped in ascertaining the long-run and short-run behavioural relationships examines the impact of deposit rates on savings, lending rates on credits and market capitalization of Nigerian Exchange group limited from 1985 to 2021. It also helped to capture the period it took for the disturbed system to adjust back to equilibrium by estimating the error correction mechanism (ECM).

Unit Root Test –Augmented Dickey Fuller (ADF) and Phillip Peron (PP)

Stationarity is defined as a quality of a process in which the statistical parameters (mean and standard deviation) of the process do not change with time (Challis and Kitney 1991). The assumption of the classical regression model necessitates that both the dependent and independent variables be stationary and the errors have a zero mean and finite variance. According to Newbold and Granger, the effect of non-stationarity includes spurious regression, high and low Durbin-Watson (DW) statistic. Testing the stationarity of variables is relevant for the reason that it incorporates important behavior for these variables and making analysis with non-stationary variables may result in spurious correlation. A stationary time series is superior or more important than a non-stationary in economic analysis as it makes easier the study of the behavior of variables in the long run (Gujarati, 2004). Stationarity test was conducted for all the variables by employing Augmented Dickey- Fuller (ADF) and the Phillips Perron (PP) tests to avoid possible spurious regression results.

Cointegration Test

Non-stationary time series data could still be used for regression, provided the time series are cointegrated. Cointegration becomes one way to guard against spurious regression. Cointegration means, despite being individually non-stationary, linear combination of two or more time series can be stationary. Cointegration of two or more time series suggests that there is a long-run or equilibrium relationship between them. The traditional regression methodology including the t and F tests is applicable to data involving non-stationary time series. The

valuable contribution of the concepts of unit root, cointegration, etc. is to help to find out if the regression residuals are stationary, $I(0)$ i.e. the series are integrated of order 1. As Granger notes, “A test for cointegration can be thought of as a pre-test to avoid ‘spurious regression’ situations.

Multicollinearity is a condition that results to inflation of the results thereby making the OLS estimators imprecisely estimated (Gujarati, 2004). Gujarati (2004) posited that the decision rule for using the VIF for estimation of multicollinearity is thus: “if any of the VIFs exceeds 10 (or 5), it is an indication that the associated regression coefficients are poorly estimated because of multicollinearity” However, the Durbin-Watson (DW) test for autocorrelation was used. This is used to check for the appropriateness of the models for analysis. Any equation with Durbin-Watson less than or greater than values not approximately 2, is not acceptable. Unacceptable Durbin-Watson suggests that the analysis cannot be relied on.

Data Analysis and discussion of results

This section contains the result of the correlation analysis, stationarity test, cointegration test and OLS regression.

Stationarity test,

The results of the Augmented Dickey Fuller (ADF) unit root test shows that all the variables are stationary at first difference. The decision rule for the ADF Unit root test states that the ADF Test statistic value must be greater than the Mackinnon Critical Value at 5% absolute term for stationarity to be established at level and if otherwise, differencing occurs using the same decision rule.

Table 1: ADF Unit Root Test and Order of Integration

Variables	Lag Length	ADF Test Statistic Value	5% Mackinnon	Remark	Order of Integration
D(logmcap)	1	-5.9004	-2.935	Stationary	I(1)
D(loglir)	1	-5.9757	-2.935	Stationary	I(1)
D(logdir)	1	-5.0216	-2.9639	Stationary	I(1)

Table 1 shows the results of the stationarity test in summary and the order of integration. It is, therefore, worth concluding that all the variables are integrated of order one. That is, the log of MCAP, LIR and DIR were all stationary after first difference at 5 percent significant level.

Table 1; Correlation Result

	MCAP	LIR	DIR
MCAP	1.000000	0.655619	-0.492354
LIR	0.655619	1.000000	0.033333
DIR	-0.492354	0.033333	1.000000

There is evidence of positive and high correlation between lending interest rate and stock market capitalisation in Nigeria which implies that lending interest rate significantly affect the level of stock market capitalization in Nigeria but deposit interest rate shows negative correlation, which means the deposit interest rate impact on market capitalisation are quite insignificant and negative.

Summary of Result

The results of the Variance Inflation Factor (VIF) (for multicollinearity) and Durbin Watson statistics (for autocorrelation) were used to determine the reliability of the model used. The VIF for all the variables are below the value of 5. This implies that there is no multicollinearity in the model. Again, the result of the Durbin Watson statistics is given as 1.54. The result is approximately equal to 2. This implies that there is no presence of autocorrelation in the model. Both results suggest that the result of the OLS regression model is reliable. Model Estimation. The result of the coefficient of determination (R^2) is 0.91 which indicate that about 91% of the changes in the dependent variable can be explained by the independent variables. This suggests that lending interest rate and deposit interest rate explains 91% of the changes in stock market capitalisation in Nigerian Exchange Group. However, the F-statistics is 131.451 with probability value of 0.000. Since the P.value is less than 0.05 level of significance, we reject the null hypotheses that do not have effect on stock market capitalisation. This implies that lending interest rate and deposit interest rate significantly determines 94% of the stock market performance movements in Nigeria. The coefficient of regression of the independent variables were used to address the specific objectives of the study.

H_{01} : MCAP does not depend on LIR.

The coefficient of Log (LIR) is 0.655. This indicate that the relationship between LIR and MCAP is positive. This suggests that a unit increase in LIR will lead to 0.65 units of increase in MCAP. The t-statistics is 2.666 with a p.value of 0.006. Since the p.value is less than 0.05 level of significance, we reject the null hypothesis and then conclude that LIR has significant effect on MCAP.

H_{02} : MCAP is not a function of DIR

The coefficient of regression for Log(DIR) is -0.492 indicating that interest rate has negative effect on MCAP This means that a unit increase in DIR will lead to decrease in MCAP by 0.49 units. The t-statistics is -1.579 with a p.value of .087. Since the p.value is greater than 0.05 level of significance, we do not reject the null hypothesis and then conclude that DIR has no significant effect on MCAP.

The coefficient of determination (R-square) value of 0.7529 indicates that 75.29% of variations in MCAP are attributable to changes in lending interest rate and deposit interest rate while standard error of the regression value of 0.2471 supports the overall fitness of the model in explaining the MCAP.

The result indicates that variables lending interest rate and deposit interest rate affect stock market capitalisation and it implies that monetary policy rate and prime lending rate have a long run influence on stock market performance in Nigeria. This implies that a stable increase in deposit interest rate and lending interest rate have the prospect of increasing/decreasing the stock market capitalisation in Nigeria.

Further results showed that a high interest rate can attract more savings and discourages the flow of capital to the stock markets leading investors to demand for a higher risk premium which impedes investment and slows down stock market performance in Nigeria. On the contrary, a low interest rate can encourage higher capital flows to the stock market in expectation of a higher rate of return. This effect is not feasible since interest rate does not have significant effect in Nigeria

Conclusion and recommendations

Conclusion

Deposit interest rate and lending interest rate have significant explanatory power for stock market capitalization in our panel, which is consistent with our expectations in line with financial liberalization theory in Nigeria. The paper examines the impact of deposit rates on savings, lending rates on credits and market capitalization of Nigerian Exchange group limited from 1985 to 2021, using co-integration approach. The specific objectives were to estimate the short and long-run association as well as the error correction mechanism of lending interest rate and deposit interest rate and stock market capitalization in Nigeria. The outcome of the exercise validated the hypothesis of financial liberalisation theory that deposit rates on savings, lending rates on credits on market capitalization of Nigerian Exchange group limited, albeit indicated positive relationship with the growth of investment all indicated negative impact on investment. Deposit interest rate and lending interest rate have significant explanatory power for stock market capitalization, which is consistent with our expectations in line with financial liberalization theory in Nigeria.

Recommendations

Based on the findings from this study, the following recommendations are made: The regulatory body should mandate banks to channel their mobilised savings to investors in form of loans at reasonable interest rate. Hence, the pointer should be to identify those constraints and bottlenecks that are making it difficult for banks to make loans available to investors. The issue of high interest rate with hidden transaction costs must be vigorously addressed by the monetary authorities; Monetary authorities should pursue policies that will encourage the saving culture of the people. This could be done by increasing the deposit rate which would lure people to deposit their money in banks thereby increasing the supply of loanable funds. This would lead to a fall in interest rate and eventually rise in investment in stock market development.

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