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Naira Redesign Policy and Sovereign Bond Market Operations in Nigeria; Emerging Issues

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A B S T R A C T

The study investigates naira redesign policy and sovereign bond market operations in Nigeria; Emerging issues. This study was guided by some objectives. Sampling was determined by the process of data collection from the secondary source. The study source data from a reliable data source Debt Management Office and the Central Bank of Nigeria, Secondary data sources were used and data was analyzed using the ordinary lead square regression statistical tool at 5% level of significance with the aid of E-VIEW which was presented in frequency tables and percentage. The study findings revealed that Money supply policy has a significant impact on the bond market operations in Nigeria and the three is positive significant relationship between inflation policy and the sovereign bond market operation, which implies that Inflation has no significant effect on the bond market operations in Nigeria. The following recommendation where made based on the conclusion, underdeveloped Nations and developing Nations like Nigeria should champion the cause of formulating a sound policy before embarking on currency redesign, because it impacts on the operation of sovereign bond market. The Government of Nigeria should not relent on its effort in setting up appropriate policy for production and distribution of goods and service in the country rather than relying on money supply policy

Keywords: Market Operations, Narrow money, Naira Redesign, Inflation and Sovereign Bond

1. Background to the Study

It is a known fact that, without an efficient financial system in place, no economy can experience outstanding performance and that no government can function. As such, an economy with adequate financial resources is mostly likely to experience sustainable economic growth (Edafiaje, 2021). The timeframe for the change of currencies by various countries differs, but as corroborated by CBN, currencies are meant to be redesigned by at least every decade and in the case of Nigeria, according to CBN it's been over 2 decades since the last change.

On July 2, 1979, the first new currency banknotes were released in Nigeria. To distinguish the denominations, they were given distinct colors. To stop cash trafficking, however, all but one of the colors of the banknotes were changed in 1984 during the administration of Major General Muhammadu Buhari. Nigeria's monetary system is a reflection of her history, colonialism, adversity, and resilience. The naira is a valuable asset in its own right. Additionally, it embodies the character, populace, and culture of the country (Historyville, 2022).

In the last five years, the Naira has experienced depreciation losing about 94% against the US Dollar. Statistically, in October 2022, the naira suffered the worst depreciation in history, with the value moving from #580 per dollar to about #707 Naira per dollar and the Black market selling for about 860 Naira per Dollar. This is as a result of an increase in demand for dollars and hoarding of the naira amongst other things. (Nneka, 2022). The CBN therefore employed what is referred to as the 'Accounting/Statistical/Withdrawal & Deposits approach to compute the currency in circulation (CIC), came up with the Statistics that 80% of the printed notes are not in circulation and outside the vault of the commercial banks. Consequently, leading to a rise in an already high inflated economy, hence The Naira redesign. According to CBN, the essence of redesigning the Naira is to combat inflation, curb counterfeit currency, kidnapping & terrorism, control the money in circulation & encourage a cashless economy so that other channels can be used which will make Nigeria a modern, efficient and effective nation. This includes an electronic money supply system, digital initiatives, mobile money transfer and improving inter-regional trade and business. As a result, the "CBN Act, 2007" was put into effect. According to Section 2, the Central Bank's main responsibilities include: (a) ensuring monetary and price stability; (b) issuing legal tender currency in Nigeria; (c) maintaining external reserves to protect the value of that currency abroad; (d) fostering a stable financial system in Nigeria; and (e) acting as a banker and giving the Federal Government economic and financial advice.. In other words, CBN is authorized by sections 2, 18, 19 and 20 of the act to arrange the printing and issuing of the Naira, as well as recalling/withdrawing any of the legal tender notes, which have been tampered with at their face value.

In order to assess the state of the economy, identify its weak points, and create policies to address those weaknesses, the money supply is monitored over time. Naira redesign has prompted CBN to track the money supply and determine whether too much money is flowing, which can lead to inflation, or too little money is flowing, which could cause deflation.

Nigerians commitment to rebuilding dilapidated infrastructure as a catalyst for economic development has brought to the fore the need for a functional bond market, given the developmental needs of the Nigerian economy. Bonds are vulnerable to interest rate risk since falling prices and rising rates go hand in hand. The true value of a bond's face value is diminished by inflation, which is especially problematic for loans with longer maturities. The return on a bond decreases in real terms, or when inflation is taken into account, if inflation is increasing (or prices are rising). For instance, if inflation is 3% and a bond pays 4% interest, the bond's real rate of return is 1%. In other words, if investors want a higher yield to offset inflation risk, yields will climb across the yield curve the higher the current rate of inflation and the higher the (anticipated) future rates of inflation. Because of these linkages, bond prices are quite sensitive to changes in inflation and inflation forecasts. (Barry, 2022). However, the task here is to embrace the whole situation, and determine how the naira redesign policy proxied by money supply and inflation has affected and is affecting the sovereign bond market operations in Nigeria.

1.1 Statement of the Problem

The Nigerian bond market seems to be like every world class security market but a preliminary study on it shows a decline in the level of investment in the bond market. One of the principal reason for Naira redesign as stated by the CBN are excess money supply and increasing rate of inflation. These factors overtime have defied all effective monetary implementation put in place to combat them hence the naira redesign. A lot of investors complain of how excess money supply has increased inflation which in turn reduces the value of the bonds. In the words of the American economist Rothberg 'inflation not only raises prices & destroys the value of the currency unit, it also acts as a giant system of expropriation. inflation in Nigeria accelerated to 21.91% as at February 2023 as against 21.82% in January 2023 (National Bureau of Statistics Nigeria 2023). Inflation is a bond's worst enemy, eroding the purchasing power of a bond's future cash flows because bonds are fixed-rate investments. As a result, central bank of Nigeria, usually raises the base interest rate, which increases the overall interest rate in the economy. Increases in the money supply are thought to cause inflation by monetarists, who see the money supply as the primary source of demand in an economy. (Team at Investopedia, 2023)

Despite government expenditures and efforts to combat terrorism, there is a growing sense of unease in Nigeria that is quickly turning into an existential crisis that is upending the country's very structure. In 2022, Abdulkarim and Saidatulakmal

The risk and uncertainty effect associated with rising levels of insecurity causes Foreign Direct Investments (FDI) and Portfolio investment (PI) to be redirected away from countries with higher security risk and toward countries with lower risk. Which also reduces investment returns, thereby reducing a developing country's capacity to attract foreign investors (Chuku, 2019). Consequently, no business can thrive in an environment with a very high level of insurgency. All of the above prompted the researcher to investigate the effect of these variables on sovereign bond market operations in Nigeria

1.2 Research Questions

In line with the above objectives of the study, the following research questions will guide this study:

i. To what extent has excess money supply influenced the sovereign bond market in Nigeria?

ii. To what degree has inflation affected the sovereign bond market operations in Nigeria?

1.3 Objective of the Study

The main objective of this research is to examine naira redesign policy and sovereign bond market operations in Nigeria; Emerging issues.

The objectives are as follows:

i. To examine the extent to which excess money supply influences the sovereign bond market operations in Nigeria.

ii. To determine the effect of inflation on the sovereign bond market operations in Nigeria.

1.4 Statement of Hypothesis

In this study, the following hypothesis was tested

Ho_1: Excess money supply has no significant influence on the bond market operations in Nigeria

Ho_2: Inflation has no significant effect on the bond market operations in Nigeria.

1.5 Scope of the Study

The scope of this study covers the naira redesign policy and the sovereign bond market operations in Nigeria. However, owing to the vastness of this topic –we shall have to restrict our investigation to a manageable proportion by focusing attention on sovereign bond market operations in Nigeria which was represented by a 10-year tenure bond (NIGB 12.75) from (2019 – 2022). However, the volume of the 10-year bond does not represent the total size of the domestic bond market in Nigeria since other tenures of 20yrs, 30 years etc. were excluded from the analysis. This period is long enough to assess the emerging issues with Naira redesign policy and the Bond Market operations in Nigeria. More so, the study covers the analyses of components of the

Naira redesign policy taking into consideration the inflation policy and money supply policy as proxies of naira redesign policy and the 10-year tenure sovereign bond issuance as proxy of the secondary bond market operation i.e. the independent and dependent variables respectively.

1.6 Significance of the Study

The study will enable the government establish the relationship between naira redesign and the sovereign bond market considering that this exercise has not been done in more than 2 decades therefore, findings of this study would enable policy makers to appraise the Nigerian bond market activities, aiding investment analysts and investors to ascertain the depth to which inflation affects the bond market and thus evaluating the option available for accessing bond investment (be it short-term, medium term, and long-term) which will result in appropriate investment decisions. Secondly, to ascertain the extent to which excess money supply or cash crunch can cause either inflation or deflation on a short, medium or long term basis in the economy and how much it affects the sovereign bond market.

Generally, the study has made immense contributions to existing literature in finance on bond market and economic growth. This was achieved by extending the existing finance theory through demonstrating that naira redesign has little effect on inflation which in turn has a negative effect on the bond market. The sovereign bond market has a direct influence on the Nigerian economy therefore It is expected that the findings from this study would contribute to the pattern of asset allocation strategies in Nigeria. This is because the bond market size is a parameter for forecasting economic growth and therefore a guideline for a country selection by foreign investors

1.7 Limitations of the Study

One major limitation of this research work is the period for which the date was sampled. In as much as the first naira redesign was done in 1984, the bond market was not fully operational at a time therefore there is a limitation of data to work with. Consequently, this study consists of utilization of the data belonging to 10-year tenure sovereign bond for the period of 2019-2022 due to availability of data. Thus, the results are constricted to be valid only within the period stated and may possibly not be generalized due to changes in the economy. To overcome this, the researcher discovered that getting data for the period does not need much stress and constraint and that the study period constitutes one of the most significant periods as far as the Nigerian financial market is concerned because of the volatility in the economy within the period of which one of them is naira redesigning.

2.0 Literature Review and Theoretical Framework

2.1 Introduction

This section analyzes various empirical studies by different researchers, related to the area of study. Specifically, this section covers conceptual issues, theoretical frameworks and empirical literature. While the conceptual issues clarified some concepts which revolved around the construct, the theoretical framework exhaustively discussed the relevant theories which underpins the subject matter. On the other end, the empirical literature presented critical review of extant empirical studies on sovereign bond market in relation to the Nigerian Naira redesign and the Nigerian economy with a view to appraise prior studies with respect to areas of strength, weakness, and areas which the researcher desires to build on. The essence of these rigors is to create as well as fill existing gaps in the existing body of knowledge.

2.2 Conceptual Framework

2.2.1 Concept of Naira Redesign Policy

Naira redesign simply refers to the process of developing or fashioning the new notes of the naira, which is Nigeria’s official legal tender. In recent times, currency management has faced several daunting challenges that have continued to grow in scale and sophistication with attendant and unintended consequences for the integrity of both the CBN and the country (Aduloju, 2022) thus the naira redesigning. (Olujobi & Chuba, 2023) stated that the policy of currency redesign by the CBN may hurt the Nigerian economy by creating a distortive impact in the economy giving previous experience in terms of the cost of undertaking this exercise and the prevailing rates of Nigeria’s external debt. Currency management has recently had to deal with a number of difficult problems that have only gotten bigger and more complex, with unexpected ramifications for the integrity of the CBN and the entire nation (Aduloju, 2022). As a result, the naira was redesignated. (Olujobi & Chuba, 2023) claimed that given prior experience in terms of the expense of carrying out this process and the current rates of Nigeria's external debt, the CBN's strategy of currency redesign may harm the Nigerian economy by having a distortive influence on the economy. whereas (Ndukwe, 2023) thinks that this policy has both positive and negative implications for the economy of Nigeria. On the positive side, it aims at promoting a cashless policy, improving the electronic use of the payment and curtailing inflation. On the negative side, it has humongous consequences of a high chance of declining Nigeria’s Foreign Direct Investment (FDI). In addition, many industries and businesses are likely to experience slow growth that will likely lead to a decline in Nigeria's real GDP and other macroeconomic uncertainties. However, the study concluded that this policy will have more of negative than positive effects on the Nigerian economy, due majorly to the peculiarity of Nigerian political system in terms of its deeply ingrained corruptive nature and the volatility of its security and exchange rate policies, therefore the crave for currency redesign may not single highhandedly resolved the bedeviling economic issue

2.2.2 Money Supply

The total amount of cash and other liquid assets in an economy on the measurement date is known as the money supply. It consists of all circulating cash as well as all bank deposits that the account holder can quickly convert to cash. These elements are referred to as the determinants of the money supply by economists worldwide. They consist of:

- **The ratio of monetary deposits:** That is, the quantity of money that the general population keeps on hand as opposed to depositing in banks
- **The ratio of reserves:** This is the minimum amount of cash that a bank must hold on hand in order to cover all prospective customer withdrawals, even in the case of a bank run, according to the Federal Reserve.
- **The excess reserve**. This is the amount of money that the banks have available to lend out to businesses and individuals. (Investopedia team 2023) Most people believe that the money supply in the economy is one large mass of cash, whereas economists view it as M1, M2, and M3 in three different ways.
- The M1 definition of money is the most limited. Coins and bills in circulation, checking and savings accounts, as well as traveler's checks, make up M1.
- M2 is equal to M1 plus money market and short-term investments.
- Repurchase agreements, huge money market funds, large time deposits, and M3 are all financial instruments typically utilized by big enterprises and organizations. We now have M1 and M2 because the Federal Reserve discontinued using M3 in 2006. but in Nigeria, the Central Bank defines money supply in two ways: Narrow and Broad money (CBN, 2006).
- Currency in circulation and current account deposits with commercial banks are both considered to be part of narrow money (M1).
- Narrow money plus savings and time deposits with banks, including deposits in foreign currencies, is referred to as broad money (M2), which quantifies the overall volume of money supply in the economy.

The economy experiences excess money supply when the amount of money in circulation is higher than the level of total output of the economy. When money supply exceeds the level the economy can efficiently absorb, it displaces the stability of the price system, resulting in inflation.

Although measuring the money supply has revealed relationships between the money supply and inflation as well as between the money supply and price levels, the study came to the conclusion that even though change in the money supply has long been thought to be a significant factor in driving economic performance and business cycles

2.2.3 Inflation

This is the consistence increase in price of commodities over a period of time. During periods of high inflation, the value of the domestic currency diminishes which negatively affects the economy (Folorunso and Abiola, 2000). Nigeria is witnessing high inflation with economic and social implications. (cbn journal, 2018). The annual inflation rate in Nigeria accelerated to an all-time high of 21.91% in February 2023, from 21.82% in January and surpassing market expectations of 21.85%. (trading economics 2023). Professor Bongo Adi maintains that the amount of financial instruments, like bonds, deposits, and so on, in the economy outweighs the amount of actual money, according to Bukola, Zaka, and Olushola 2022. As a result, there is no meaningful connection between inflation and Naira printing or redesign. He went on to say that the country's inflation is actually more driven by economic variables like currency volatility and security. On the other hand, according to Dr. Muda Yusuf, the redesign of the naira will not be able to stop inflation because only 6.8% of the total amount of money in the economy is made up of physical cash. As a result, a measure that targets physical cash cannot have a significant impact on the 93.2% of other money that is tied to deposits, bonds, and other financial instruments.

According to the CBN journal from 2018, the importance of anticipated inflation in affecting the actual inflation rate may suggest an anticipatory role in the inflationary process in Nigeria. In order to lower inflation expectations in the economy, measures should be taken by the relevant authorities to prevent stockpiling and panic buying. Despite the fact that economists do not all agree on the root cause of inflation, most agree that it usually appears when the economy is doing well, according to the study's findings. A core commodity like oil can see a sudden, sharp surge in price, which can also cause it to manifest. Companies are compelled to raise pay when unemployment rates decline, which raises the cost of production.The consumer pays more for goods and services as a result of these increases in cost.

2.2.4 Sovereign Bond

A sovereign bond is a debt security issued by a country to fund expenditure plans, pay interest obligations, or settle previous debts. A sovereign bond guarantees that the purchaser will receive regular interest payments and that the face amount will be repaid on the bond's maturity date. The interest rate paid, or yield, is based on the issuer's risk profile. For a sovereign bond, a country with a higher perceived default risk will have a higher yield. Investors predict the possibility of a default on sovereign debt obligations by taking into account the economic profile, exchange rate, and politics of the nation.

Investors looking to understand the risks associated with investing in a particular nation can obtain sovereign credit ratings from rating agencies like Standard & Poor's, Moody's, and Fitch Ratings. These organizations also give credit assessments to businesses and corporate debt securities. According to Justin Kuepper 2021, before making an investment, nations and people weigh the credit worthiness, national risk, and exchange rate, which are the main factors affecting sovereign bond yields.

Arowoshegbe, Okunbor, and Omoregie (2011), stated that the Nigeria bond market, especially the FGN Bond segment, has witnessed mixed fortunes over the years. Lately however, with the rapid growth and development of FGN bond market, successful bonds issued by state government, concessions on the regulatory side, as well as investor aversion towards the equity market in recent times seems to have fueled an increased appetite for the corporate bond market.

This study asserts that despite the amazing growth recently seen in the bond market, no systematic attempts have been made to place the Nigerian bond market as the focal point of the nation's socioeconomic development. In contrast to the global average, where the size of the global bond market outpaces that of the global stock market by a proportion of two to one, the Nigerian bond market remains smaller than the stock market. The direction of the outstanding issuance toward government-issued paper reflects the underdevelopment of other segments of the market, despite the ratio of the size of the Nigerian bond market to the stock market suggesting an increasingly healthy market.

2.3 Theoretical Framework

A lot of theory exist on the issue of Naira redesign and sovereign bond operations but for the purpose of this study, we shall limit our theories to these three; The quantity theory of money (QTM), classical theory of inflation and Structural functionalism.

2.3.1 The Quantity Theory of Money (QTM)

This argues that the general level of prices for goods and services is inversely correlated with the money supply. Nicholaus Copernicus, a Polish mathematician, first proposed the theory in 1517. Philosophers John Lock, David Hume, and Jean Bodin, as well as economists Milton Friedman and Anna Schwartz, later restated it in a book titled "A Monetary History of the United States, 1867–1960," which was published in 1963.

Friedman and Schwartz (1963) used historical time series data and economic analysis to argue the then novel proposition that changes in money supply strongly influenced the United States economy. The inference they drew was that changes in money supply has unintended adverse effects, and that sound monetary policy is necessary for economic stability.

2.3.2 Classical theory of Inflation

Whereas the traditional view of inflation links persistent price inflation to an uncontrolled increase in the amount of money in circulation. Because of this, the classical theory—which is actually a theory of inflation and not of money—is occasionally referred to as the "quantity theory of money." It shows how the relationship between money supply and money demand determines the overall price level in more detail. In reality, the classical theory must rank as one of the earliest "microfounded" macroeconomic models since it links the behavior of an important economy-wide variable—iinflation—tto the most fundamental dynamics of supply and demand. Boston College's Peter Ireland

According to the monetary theory of inflation, inflation is brought on by an increase in the money supply. Faster inflation is a result of faster money supply expansion. The inflation rate increases by 1% for every 1% faster rise in the money supply. The money supply and price level are inversely correlated when all other factors are held constant. Prices would double if the money supply were doubled. based on macroeconomics

2.3.3 Functionalist Structuralism

One of the conventional or classic sociological ideas is structural functionalism. August Comte (1798–1857) served as its founder, while intellectuals like Herbert Spencer (1820–1903) and Robert Merton (1920–2003) contributed to its development.. Talcott Parson (1902–1979) and Emile Durkheim (1858–1917) later improved the theory. The political, economic, religious, educational, industrial, technological, social control, and social order structures all exist within human society and cooperate in a linked and interdependent way to support solidarity and stability. As a result, each change in one aspect of society affects the other.

2.3.4 Theoretical Basis

This study was anchored on the theory of the Structural functionalism which is one of the classical or traditional theories in Sociology which states that within human society, the following structures exist: political, economy, religion, education, industry, technology, social control or social order and they work together in an interrelated and interdependent manner to promote solidarity and stability. Hence any flux in one part of the society causes flux in another part.

2.4 Empirical literature:

Globally, the empirical literature focuses much on the debate on income, output, interest rate, reserve, currency ratios, money multiplier and high-powered money as the determinants of money supply.

Almost all research demonstrates statistical evidence for these factors, despite the fact that some of these variables may be preferred or of greater importance than others in different studies.

Odior (2013) examined the money supply. The study used a time-series GMM model while assuming that changes in the monetary base and the money multiplier are responsible for changes in the broad money supply. The findings showed that the base money and money supply, as well as the money multiplier and money supply, have positive but not entirely stable relationships.

Adebayo (2019) investigated the effects of open market operations (OMOs) and the money supply on inflation in Nigeria from 1981 to 2016. The study used a vector error correction model technique, The analysis found a substantial and positive association between Nigeria's inflation rate, the money supply, and government bonds. The outcomes of monetary policy almost always indicate that Nigeria does not have the best environment to implement a system of monetary policy that is primarily focused on stabilizing prices. This is because the country's domestic debt is rising as a result of the sale of government securities. The study also showed that the overall value of financial market instruments, capital income, and interest rates all had a negative and significant impact on Nigeria's inflation rate.

However, researchers in Nigeria have remained interested in the topic of inflation. In an effort to better understand the nature and causes of inflation in Nigeria, a variety of factors and models have been used.

Hamza, (2017) examined the determinants of inflation in Nigeria, with the aid of an auto-regressive distributed lay (ARDL) technique using annual time series data for the period 1970 to 2014.evidence from the study shows the existence of a long run relationship between broad money supply & inflation along with other related variables.it further reveals that money supply and exchange rate influence variation in inflation.

Yen and Siok (2015) Investigated determinants of inflation using an error correction model on the auto regressive lay(ARDL) to explain the long and short impacts of inflation on high and low inflation group using annual data from 1970 to 2011.the study clearly indicated that GDP growth & import of goods & services have significant long run impact on inflation in low inflation countries, whereas money supply, national expenditure and GDP growth are the determinant of inflation which pose a long term impact on inflation in high inflation countries.

2.5 Existing Gap

In line with all the empirical study reviewed, the variables which caused naira currency to be redesigned have been studied extensively by other scholars. According to studies, the money supply and government bonds have a positive and significant association with Nigeria's inflation rate. The impact of M1 (Narrow Money) on the operation of the Nigerian bond market and developing issues has not been thoroughly studied in any of these studies, in part because the redesign of the naira is the most recent emerging issue in the Nigerian economy.

Therefore, the contextual gap here is for this study to bridge the gap on the impact of narrow money on the sovereign bond market operations in Nigeria.

3.0 Research Methodology

This chapter discusses and explains the data collection and the various tools and analysis methods used in this study; it further explains what the researcher did and how it was done, allowing readers to evaluate the reliability and validity of this study. The study area covered the Debt Management Office and the Central Bank of Nigeria, Where the major data for this study is collected. These offices are all located in the Federal Capital Territory, Abuja. The DMO has the mandate for issuance of sovereign bond in Nigeria, while the CBN is the apex institution for the conduct of monetary policy. The nature of our research suggests the right research strategy, to be correlational designs. It is correlation in the sense that it is to enable the researcher to measure variables of Naira redesign and sovereign bond market operation and describe relationships between them. For the purpose of this research, sampling was determined by the process of data collection from the secondary source. The study source data from a reliable data source Debt Management Office and the Central Bank of Nigeria, However, the size of the sample is a question of availability, research purpose, time constraints, etc. For our research we have selected samples based on our subjective judgments rather than statistically at random. This study considers secondary quarterly data. using secondary data expands the scope of this study, enabling the researcher access to much larger and more varied samples than we could collect through a primary data method. They were sourced mainly from the Bloomberg terminal, from DMO and CBN. The period of analysis stretches from 2019 to 2022. This is necessitated by the availability of data.

Since we are analyzing data from populations that we cannot access first-hand, this study chose a secondary data method which enabled us to use existing dataset from Debt Management Office Nigeria and CBN. The study was presented using descriptive statistics and hypothesis test to predict collected samples because we want to understand the relationships between all the variables, regression analysis was used to analyze the data. Therefore, the economic model of Ordinary Least Square (OLS) estimation was used to analyze and estimate data between the periods of 2019 – 2022. It will also be used in analyzing and obtaining estimates for all the coefficients of the equation. This will provide us an insight into relationship between Naira redesign policy and bond market operations. The variable to be considered is sovereign bond operation, which will stand as dependent variable and naira redesign index (proxied by volume of money supply) and inflation stand as independent variables. E-views statistically packaged will be deplored for unit root test and regressing analysis. In this study, are two independent variables, which are naira redesign (proxied by money supply policy) and inflation policy and a dependent variable which is the sovereign bond market operations that are investigated. This has been model bellowed.

$$SBMO_t = \beta_0 + \beta_1 IFP_t + \beta_2 MSP_t + \mu_t \qquad (3.1)$$

Where:

$SBMO_t$ = Sovereign bond market operation

IF_t = Inflation Policy

MSP_t= Money Supply Policy

$\beta_0 =$ Intercept of the model

β_1, and β_2 = slopes of the explanatory variables

μ = error term; $\beta_1 > 0$, $\beta_2 > 0$

Decision rule:

If t* > ADF critical value, ==> Do not reject null hypothesis, i.e., unit root exists.

If t* < ADF critical value, ==> reject null hypothesis, i.e., unit root does not exist.

The general functional form of the relationship is given in equation (3.2.) below:

$SBMO_t$ =f (IF_t, MSt,) - - - - - - - (3.2.)

A regression analysis was carried out on the above model to determine the Naira Redesign Policy and Bond Market Operations in Nigeria. Before estimating the model, the researcher subjects the time series data to stationarity test by carrying out Augmented Dickey Fuller (ADF) test on the variables. (SBMO, IF and MS)

4.1 Data Presentation

TABLE 1: Sovereign Bond Market Operations in Nigeria (SBMO) in Billion, Naira Redesign Policy Index: Money supply policy (MSP) in billion and Inflation policy (IFP)

Narrow Money		**Inflation**		**Sovereign Bond YTM**	
Year	**Quarterly Percentage**	**Year**	**Quarterly Percentage**	**Year**	**Quarterly YTM Percentage**
2019	27.48	2019	33.93	2019	11.528
2019	27.17	2019	33.99	2019	13.926
2019	23.47	2019	33.34	2019	14.36
2019	21.89	2019	35.44	2019	14.514
2020	27.18	2020	36.59	2020	3.489
2020	26.74	2020	37.3	2020	3.1
2020	24.39	2020	39.75	2020	5.625
2020	21.69	2020	44.87	2020	10.596
2021	27.42	2021	51.97	2021	7.436
2021	26.49	2021	53.8	2021	8.117
2021	24.2	2021	51.02	2021	11.482
2021	21.89	2021	47.02	2021	6.299
2022	28.43	2022	47.22	2022	4.601
2022	25.56	2022	53.13	2022	7.42
2022	24.51	2022	60.93	2022	5.835
2022	21.51	2022	63.9	2022	4.991

*YTM is yield to maturity

Sources: Central Bank of Nigeria Statistical Bulletin and DMO, Bloomberg Terminal (period)

4.1.1 Descriptive Statistic

Table 2: Descriptive Statistics

Location	**Percentage %**	**Mean**	**Standard deviation**
Money supply	67	3.14	1.93
Inflation	33	2.73	1.47
Total	**100**	**5.87**	**2.40**

Source: Field Survey, 2023

Table 2 indicates that 57% of the data are from money supply and 33% are form inflation data. This implies that the money supply contributed a mean of 3.14 and a standard deviation of 1.93 while money supply has a mean of 2.73 and a standard deviation of 1.47. There is therefore a need for hypothesis test

4.2 Hypotheses Testing and Regression Result

The hypothesis formulated in chapter one of this study is verified in order to find out the validity or otherwise of such a proposition. The research hypothesis is based on relevant statistics from the regression result which is tested on the basis of quantitative statistical analysis in this study.

4.2.1 Summary of the Regression Results

Table 3

Dependent Variable: Money supply policy and inflation

Method: Least Squares

Date: 06/4/23 Time: 08:18

Sample: 15

Included observations: 16

Regression Statistics	
Multiple R	0.537527
R Square	0.288935
Adjusted R Square	0.179541
Standard Error	3.518994
Observations	16

From the regression results, the estimated analytical model of the study is:

SBMO = 31.03629 + 0.55854MSP+ 0.19309IFP + e

Where e is the error of estimate. And C is the intercept

TABLE 4

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	65.4141	32.70705	2.641219	0.108996
Residual	13	160.9831	12.38332		
Total	15	226.3972			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	31.03629	11.47488	2.704715	0.018031	6.246314	55.82628	6.246314	55.82628
Excess Money supply	0.55854	0.390764	1.42935	0.046492	-1.40273	0.285655	-1.40273	0.285655
Inflation	0.19309	0.093702	2.06066	0.059932	-0.39552	0.009343	-0.39552	0.009343

Computation by Author using E-view statistical tool (Version 28)

4.3 Test of Hypothesis

Hypothesis 1:

***$H_{01:}$* excess Money Supply has no significant effect on the bond market operations in Nigeria.**

Based on the available data, the estimated model provides insight into the likely situation of the Nigerian sovereign bond market with or without naira redesign index. While estimate of the intercept (λ_0 = 0.55854) indicates that, on the average, some positive level of growth (sovereign bond market operations value of 0.55854 billion is sustainable in the absence of inflation policy, And P-value under MSP is less than 0.05 alpha which was set as bench mark for accepting and rejecting null hypothesis, therefore we reject null hypothesis and inferences was draw that Money supply policy has a significant effect on the bond market operations in Nigeria.

Hypothesis 2:

***H_{o2}*: Inflation has no significant positive effect on the bond market operations in Nigeria.**

Based on the available data, the estimated model provides insight into the likely situation of the Nigerian Sovereign bond market operation with or without money supply policy. While estimate of the intercept (λ_0 = 0.19309) indicates that, on the average, some positive level of growth (SBMO value of 0.19309 billion) is sustainable in the absence of inflation policy, and P-value under inflation policy is greater than 0.05 alpha always set as bench mark, therefore we accept the null hypothesis and inferences was draw that inflation policy has no significant positive effect on bond market operations in Nigeria

Appropriateness of the model is further substantiated by the R-squared (0.143395 or 14%) This implies that about 14% of the total variation in SBMO is explained by the independent variables of the regression, i.e. Inflation policy and money supply policy. In other words, the variation in SBMO is best explained by the regression.

Since the Durbin-Watson statistic computed from the data sets is less than 2 it indicates positive serial correlation

4.4 Major Findings

The following findings where reached based on the above analysis

i. Excess Money supply has a significant impact on the bond market operations in Nigeria

ii. There is no positive significant effect between inflation and the sovereign bond market operation, which implies that Inflation has no significant positive effect on the bond market operations in Nigeria.

4.5 Discussion of Findings

Based on the available data, the estimated model provides insight into the likely situation of the Nigerian Sovereign bond market operation. While estimate of the intercept (λ_0 = 31.03629) indicates that, on the average, some positive level of growth is sustainable in the absence of the two independent variables used in the model. The estimates of the coefficients of F-Value = (2.641219), indicate that any attempt by the government of Nigerian to streamline naira redesign policy in all facet of the economy will induce significant increase in the sovereign bond market operation in Nigeria. The positive effects of monetary policy is significant at the 5% level as evidenced by the p-values (0.046492) associated with the t-statistics (1.42935) , but a negative effect of inflation is not significant at 5% level as proved by the p-value of 0.059 associated with the t-statistic (2.06066) of its coefficient (0.19309). Thus,

R-squared (R^2): Gives value of (0.288935 or 0.28%) which is the coefficient of determination, this implies that the variables used in the model has the ability to explain up to 0.28% relationship between independent and dependent variables holding other factors constant. This is in line with Hamza, (2017) who conducted a study in the independent variables of money supply and inflation and found the existence of a long run relationship between broad money supply & inflation along with other related variables.it further reveals that money supply and exchange rate influence variation in inflation. In practice, United States, UK and Indian can be trace their success on sound currency redesign policy to check excess money supply which control inflation. Therefore, if the developing Nations like Nigeria, South Africa and Kenya should acknowledge the benefit of currency redesign in the real sector through her respective standard institutions, it will result to economic development and growth through the sovereign market operation

5.1 Summary of Findings

The major finding indicates that;

i. Excess Money supply has a significant positive relationship with the bond market, indicating that increase in money supply, increases liquidity in the market, lowers the yields and ultimately the borrowing rate. This is consistent with theoretical expectation.

ii. Inflation rate has a negative relationship with the sovereign bond market. This is contrary to the theoretical expectations. Because, increase in inflation rates usually leads to increase in interest rates and this impacts the sovereign bond market negatively.

5.2 Conclusions

Judging from the findings of this research, the researcher has no doubt to conclude that naira redesign policy, proxied by the policy money supply contributed to the growth in the operation of the sovereign bond market. Also inflation influences the operation of the sovereign bond market. It concludes that naira redesign policy contributes to efficiency of sovereign bond market operations in Nigeria.

5.3 Recommendations

Based on the findings of this study, the researcher makes the following recommendations:

Underdeveloped Nations and developing Nations like Nigeria should champion the cause of formulating a sound policy before embarking on currency redesign, because it impacts on the operation of sovereign bond market. The Government of Nigeria should not relent its effort in setting up appropriate policy for production and distribution of goods and service in the country rather than relying on money supply policy

5.4 Suggestions for Further Research

The study makes the following suggestions based on the findings of the study;

Since this study explored on naira redesign policy and sovereign bond market operations in Nigeria, Further studies should be done on the

i. Economic benefit of naira redesign using a different variable

ii. Factors that triggered the success of sovereign bond market in Advanced Countries using USA and Japan as a case study.

5.5 Contributions to Knowledge

The finding of this study has some implication to the economy of developing countries especially that of Nigeria. The findings and empirical review indicated that the policy of naira redesign could impact the operation of the sovereign bond market which can result to economic growth and development. Monetary policy measures should be designed to ensure that effective and efficient operation of the Nigeria capital market in general.

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References

Adelowokan O, Adesoye B.A and Ogunmuyiwa, (2017). The Determinants of inflation in nigeria from 1970 - 2014: Faculty of economics & management sciences university of sultan zainal abiding, https://www.researchgate.net/publication/326659621_Measuring_the_Impact_of_Exchange_Rate_on_Industrial_Output_in_Nigeria

Amana S,A, Aigbedion I.M and Zubair A.Z. (2020). Impact of Government securities, Expenditure on Economic growth in nigeria; International journal of innovative research in social sciences & strategic management technique, https://www.researchgate.net/publication/347395008_IMPACT_OF_GOVERNMENT_SECURITY_EXPENDITURE_ON_ECONOMIC_GROWTH_IN_NIGERIA

Arowosegbe, Okunbor J. and Omoregie N. (2011). The Development of the Bond Market in Nigeria, https://www.researchgate.net/publication/342814128_THE_DEVELOPMENT_OF_BOND_MARKET_IN_NIGERIA

Chuku C., Abang D. and Isip, (2017). Growth and Fiscal consequences of terrorism in Nigeria, https://www.researchgate.net/publication/320693238_Growth_and_Fiscal_Consequences_of_Terrorism_in_Nigeria

CPI and Inflation Report, (January 2023). National Bureau of Statistics, https://nigerianstat.gov.ng/elibrary/read/1241285

Edafiaje A. (2021). Influence of bond market on the Nigerian economy, https://iuokada.edu.ng/iptto/wp-content/uploads/2022/01/INFLUENCE-OF-BOND-MARKET-ON-THE-NIGERIAN-ECONOMY.pdf

Frank N, (2022). Naira Redesign: Reason, Circulation & Economic impact; lifestyle, https://geeky.com.ng/2022/11/26/naira-redesign-reason-circulation-economic-impact/

HistoryVille, (2022). The Nigerian Naira (N): A History of its rise & fall: Nigerian history, https://www.thehistoryville.com/history-nigerian-naira/

Idowu B., Khaliq K. and Bello O., (2022). Redesigning Naira won't check rising inflation - Analyst; Leadership, https://allafrica.com/stories/202211020024.html

Investopedia Team, (February 2023). Money Supply Definition; Types and how it affects the Economy, https://www.investopedia.com/terms/m/moneysupply.asp

Lim Y,C and Sek S.K, (2015). An examination on the determination of inflation; Journal of economics, business and management, https://www.researchgate.net/publication/271293284_An_Examination_on_the_Determinants_of_Inflation

Monetary Policy Series; Central Bank of Nigeria, Monetary policy department

Ndukwe J, (2023). Naira Redesign and cashless policy in Nigeria, https://www.researchgate.net/publication/369013173_NAIRA_REDESIGN_AND_CASHLESS_POLICY_IN_NIGERIA

Nielsen B. (2022). Understanding Interest rates, Inflation and bonds; Investopedia https://www.investopedia.com/articles/bonds/09/bond-market-interest-rates.asp

Ochie A. (2022). Naira Redesign - The Law and Global best practices; Legal Business https://businessday.ng/news/legal-business/article/naira-redesign-the-law-and-global-best-practices/

Odior, E. S. (2013). Pure portfolio approach to money supply determination in Nigeria: A generalized method of moments approach. Journal of Finance & Economics., https://www.researchgate.net/publication/314804635_Pure_Portfolio_Approach_to_Money_Supply_Determination_in_Nigeria_A_Generalized_Method_of_Moments_Approach

Olujobi and M.Chuba, (2023). Macroeconomic Implication of the new currency refurbishment and capital formation in Nigeria., https://www.researchgate.net/publication/368327321_MACROECONOMIC_IMPLICATIONS_OF_THE_NEW_CURRENCY_REFURBISHMENT_AND_CAPITAL_FORMATION_IN_NIGERIA

Udoh S. U. and A.S Isaiah (2018) A predictive model for inflation in nigeria; CBN Journal, https://www.researchgate.net/publication/334455722_A_Predictive_Model_for_Inflation_in_Nigeria.

Yusuf A.& Mohd'S. (2023). Growth and Fiscal effects of Insecurity on the Nigerian Economy, *The European Journal of Development Research*, https://link.springer.com/content/pdf/10.1057/s41287-022-00531-3.pdf