

Impact Of Monetary Policy Instruments on Net Import in Nigeria (1993-2023)

DIGGA, DANJUMA MARK¹, AKPAN, MICHAEL S.², OGWUCHE, DAVID D.³

¹ Department of Economics Education Kaduna State College of Education, Gidan-waya.

^{2,3} Department of Economics Bingham University Karu, Nasarawa State.

Abstract- Nigeria's economic landscape has been characterized by fluctuating trade balances, with net imports playing a pivotal role in influencing economic stability. Despite the implementation of various monetary policy instruments, their effectiveness in managing net imports remains unclear. It is against this backdrop that this paper examined the impact of monetary policy instruments on net imports in Nigeria. The main objective was to assess how various monetary policy channels such as; Money Supply (MS), Interest Rate (INTR), Cash Reserve Ratio (CRR), and Exchange Rate (EXCH) affect Net Import. The study utilized an Autoregressive Distributed Lag (ARDL) model to analyse time series data on monetary policy instruments and net export, employing co-integration and error correction techniques to capture both short-run and long-run relationships. The findings revealed MS had a significant but negative impact on net imports in the short run, in Nigeria, suggesting that an increase in money supply is associated with a decrease in net imports before long term adjustments. A decrease in net imports implied that either imports were falling or exports were rising, leading to an improvement in the trade balance. Conversely, a positive and statistically significant relationship between interest rates and net imports was found, which countered the conventional expectation that higher interest rates suppress demand. This implied that, higher interest rates often attract foreign capital inflows, strengthening the domestic currency. Similarly, CRR had a positive and significant impact on net imports in Nigeria, suggesting that domestic production constrained by higher CRR could make consumers and firms turn to foreign goods to fill the gap, driving up imports in the short run. Based on these findings, specific recommendations were made to relevant institutions. The government of Nigeria should implement policies that encourage local production of goods that Nigeria heavily imports (machinery, refined petroleum products, food items) through tax incentives, subsidies, and infrastructure support.

Keywords: Monetary Policy, Money Supply, Interest Rate, Foreign Reserves and Net Import.

I. INTRODUCTION

Net import, a critical economic indicator, represents the difference between a country's total imports and exports. When imports exceed exports, the country is said to have a net import position. This concept is particularly significant for Nigeria, a nation with a complex economic structure heavily influenced by its reliance on oil exports and its need for diverse imports to sustain its population and industries (Okeke, 2018).

Nigeria's economy has historically been shaped by its status as a major oil producer. Oil exports account for a significant portion of the country's revenue, making Nigeria a net exporter in terms of crude oil. However, the nation is also a substantial net importer of goods, particularly refined petroleum products, machinery, food items, and consumer goods. This duality underscores the importance of analyzing net imports to understand Nigeria's economic health and trade dynamics (Appah, 2022).

The analysis of net imports in Nigeria gained prominence in the late 20th century as the country faced economic challenges, including fluctuating oil prices, currency devaluation, and trade imbalances. Policymakers and economists began to focus on trade data to identify trends, address deficits, and formulate strategies for economic diversification.

In Nigeria, statistics showed that overtime, imports have decreased to 4384900.26 (Million Naira) in September of 2024 from 5317277.06 (Million Naira) in August of 2024. Imports in Nigeria averaged 477015.07 (Million Naira) from 1981 until 2024, reaching an all-time high of 5431552.70 (Million Naira) in March of 2024 and a record low of 167.88

(Million Naira) in May of 1984 (National Bureau of Statistics, 2025).

Monetary policy, implemented by the Central Bank of Nigeria (CBN), encompasses various instruments such as interest rates, money supply control, cash reserve requirement, and exchange rate. These instruments are crucial in regulating economic activities, including trade flows. However, Nigeria's economic landscape has been characterized by fluctuating trade balances, with net imports playing a pivotal role in influencing economic stability.

Despite the implementation of various monetary policy instruments, their effectiveness in managing net imports remains unclear. There is a need to investigate the relationship between monetary policy instruments such as money supply, interest rates, cash reserve ratio, and exchange rates, and their impact on net import levels in Nigeria. Understanding this dynamic is critical to formulating policies that can promote sustainable trade balances and economic growth.

Therefore, it is in the interest of this study to conduct an analysis of how monetary policy instruments have impacted net import in Nigeria from 1993 to 2023, with specific objectives to analyze the impact of money supply on net import in Nigeria; assess the effect of interest rate on net import in Nigeria; evaluate the influence of cash reserve ratio on net import in Nigeria; and determine the impact of exchange rate on net import in Nigeria.

The paper addressed the following hypotheses:

- H01: Money Supply has no significant impact on net import in Nigeria.
- H02: Interest Rate has no significant impact on net import in Nigeria.
- H03: Cash Reserve Ratio has no significant impact on net import in Nigeria.
- H04: Exchange Rate has no significant impact on net import in Nigeria.

II. LITERATURE REVIEW

Monetary Policy

Monetary policy is a fundamental aspect of economic management, employed by central banks to regulate

the economy's money supply, interest rates, exchange rates, and foreign reserve. According to Ndugbu & Okere (2015), monetary policy is highly important because it does not only maintain the internal targets of the economy but also monitors the external balance.

Countries trade with each other to obtain things that are of better quality or less expensive or simply different from the goods and services produced at home. Similarly, (Dwivedi, 2015) opine that monetary policy remains an important tool that can stimulate growth and stability of financial institution in most developing economies. In the context of measuring monetary policy, it is critical to analyse specific monetary policy instruments. Key instruments of monetary policy include money supply, interest rates, exchange rates, and foreign reserve.

The money supply, which includes all the currency and other liquid instruments in an economy, plays a crucial role in determining economic activity. An increase in money supply can lead to lower interest rates, higher investment, and increased economic output, thereby enhancing the country's export capacity. However, excessive money supply can cause inflation, making domestic goods less competitive in the international market (Mishkin, 2016). In Nigeria, the regulation of money supply has been a critical aspect of the CBN's monetary policy strategy aimed at maintaining economic stability and promoting trade.

Interest rates are another vital component of monetary policy. They influence borrowing costs, consumer spending, and investment. High-interest rates tend to reduce borrowing and spending, which can slow down economic activity and negatively impact foreign trade. Conversely, low-interest rates can stimulate economic activity by making borrowing cheaper, thus encouraging investment and export growth (Acha & Kelechi, 2011). The CBN's adjustments to interest rates are therefore pivotal in shaping Nigeria's foreign trade performance by balancing domestic economic growth and trade competitiveness.

The Cash Reserve Ratio is fundamentally defined as the proportion of commercial bank deposits that must be maintained as statutory reserves with the central bank, functioning as a quantitative tool for controlling money supply and liquidity in the financial system.

The theoretical foundation of CRR rests on the fractional reserve banking system, wherein commercial banks leverage customer deposits to extend credit while maintaining specified reserve buffers (Afolabi et al., 2025). Historically, Nigeria's CRR has fluctuated significantly in response to different macroeconomic conditions and policy objectives. The tool gained particular prominence during the global financial crisis of 2008-2009, when the CBN reduced CRR from 4% to 2% as part of emergency liquidity measures (Nkoro and Uko, 2012).

Exchange rates determine the value of the domestic currency relative to foreign currencies. A depreciated currency makes a country's exports cheaper and more competitive abroad, thereby boosting foreign trade. Conversely, an appreciated currency can make exports more expensive and reduce trade volumes (Ani & Udeh, 2021). In Nigeria, the CBN actively manages exchange rates to ensure stability and foster a favorable trade environment. The effectiveness of exchange rate policy is evident in its impact on trade balance and foreign exchange earnings.

Net import

Net import refers to the difference between the value of a country's total imports and the value of its total exports. When a country imports more goods and services than it exports, it is said to have a net import. Conversely, if a country exports more than it imports, it has a net export.

Net import is a crucial economic indicator that provides insights into a country's trade balance and economic health. It is closely related to the balance of trade, which is the difference between the value of a country's exports and imports. A positive net import indicates a trade deficit, while a negative net import indicates a trade surplus (Hayes, 2022).

Empirical Review

Ogbu (2024), analyzed the effect of monetary policy on net import in Nigeria covering the period 1990 – 2020, using the linear regression method with the application of the Error Correction Model (ECM).

The findings of the study revealed that interest rate had a negative and insignificant effect on net import in Nigeria, exchange rate had a positive and insignificant effect on net import in Nigeria, broad money supply had a positive and significant effect on net import in Nigeria and there was a causal relationship between net import, trade openness and broad money supply.

The study recommended that there is need for boosting domestic production so as to contend high level of import that may have a detrimental effect on Nigeria's external reserves. Secondly; the Nigerian authorities should carry out reforms that would enhance the role of interest rate in order to mobilize funds for trade purposes.

Sana et al. (2024), investigated the effect of monetary policy instruments on Pakistani import, using annual data for the period 1980 to 2021. The Bound co-integration tests showed the existence of a long-term relationship among imports and the other variables.

Upon analyzing the import model, it was discovered that in the short term, variables such as the exchange rate and money supply exerted a significant influence on imports. Conversely, over a prolonged period, the currency rate, inflation rate, and money supply all exert positive and statistically significant impacts on imports. The study suggested that policymakers and practitioners should properly oversee trade agreements to ensure an immediate and long-term favourable effects of different variables on import.

Nzeh, et al. (2024) evaluated the response of monetary policy to capital inflows in Nigeria. The study used money supply (M2), monetary policy rate (MPR), and cash reserve ratio (CRR) as explanatory variables, and capital flows [proxy by Net Foreign Asset (NFA)] was used as the dependent variable. The study covered the period from 2007M1 to 2021M9 and employed the vector autoregressive (VAR) method to estimate the variables. The results

revealed that the broad money supply (M2) responded positively to shocks in capital inflows (proxy by NFA) in all the quarters, while the cash reserve requirements (CRR) responded positively to shocks in capital inflows only in the first quarter.

The finding equally revealed that the monetary policy rate (MPR) exhibited a positive response due to shocks in capital inflows, while the response of exchange rate to shocks in capital inflows was positive in all the quarters. In another respect, capital inflows were found to respond positively to shocks in the MPR in the first quarter, negatively in the second quarter and thereafter it responded positively in all the other quarters.

The study concluded that while monetary policy variables reacted expectedly to shocks in capital inflows within the study period, a reverse causality existed between capital inflows and monetary policy variables. The implication of the finding is that even though monetary policy variables could be effective in reducing the monetary impact of capital inflows, their implementation may end up producing unintended results.

Abonazel et al. (2023), conducted an analysis on the relationship between monetary policy and trade balance in Egypt during the period 1990 to 2021. The study used the autoregressive distributed lag (ARDL) model to estimate the long-term relationship between exchange rate, foreign direct investment, money supply and the trade balance.

The results indicated that the exchange rate had a significant negative effect on the trade balance, the money supply is positively and significantly related to the trade balance, while there was no significant effect of foreign direct investment in the long term on the trade balance deficit. The study recommended continuing the policy of liberalizing the exchange rate while working on expanding the production base to increase exports.

Khan et al. (2022), by analyzing Pakistan's balance of trade from 1980 to 2019, carried out a study to investigate the short-run and long-run effect of various factors such as exchange rate, trade barriers and money supply on trade balance. The findings

revealed a statistically significant long-run relationship between the study variables except for foreign trade policy. Furthermore, the exchange rate was insignificant in the short run at level and lag, while all other variables were statistically significant in the short-run.

Based on findings, the study suggested that the State bank is needed to play its role in fixing the balance of the trade problem by using money supply as a policy tool. Moreover, the authorities should focus upon the income rather than exchange rate policy as a tool for correcting the balance of the trade.

Nwagu et al. (2022), used the co-integration method and ordinary least square estimation to examine the impact monetary policy on Nigeria's trade balance from 1981 to 2018. The co-integration test confirmed the existence of a long-run relationship between monetary policy as measured by broad money supply (M2) and trade balance. As a result, the study recommended that the government should encourage trade policies that increase exports to attract foreign exchange inflows and foreign investments.

Sakanko and Akims (2021), empirically evaluated the effect of monetary policy on trade balance, using the Autoregressive Distributed Lag Model on time series data spanning from 1980 to 2018. The findings revealed that monetary policy instruments of real interest rate and effective exchange rate had a long-run co-integration relationship and significant adverse effect on trade balance in both the short run and long run.

Thus, the study concluded that monetary policy is a veritable tool through which Nigeria can maintain a favorable trade balance. The work recommended that policymakers should step up measures that will maintain low-interest rates to sustain a flexible exchange rate and remove all rigidities associated with the international payment system.

Sikiru (2020), investigated the impact of monetary policy instruments on net import in Nigeria during the period 1981 to 2017. The study used the Error Correction Model (ECM) to analyse predictor variables such as money supply, interest rate,

exchange rate, foreign direct investment, trade openness and net import.

From the findings of the study, the error correction term (speed of adjustment towards equilibrium) value of -0.53581 is significant at 5%. However, not all the variables used in the study are significant. For instance, interest rate shows to have a negative coefficient and not significant. Base on the analysis, the study recommends that there should be effective monetary policy management to achieve the objective of price stability by the government. The government should adopt tight trade openness by keeping trade openness rate below or at the ceiling level to ensure economic growth.

Berhe (2020), investigated the effect of monetary policy instruments on trade balance in Ethiopian over the period 1974-2016. The ARDL and Error Correction Model are applied. From the findings, real effective exchange rate, real domestic income and lending interest rate have a significant and positive effect on trade balance; whereas money supply and government expenditure deteriorated trade balance while deposit interest rate was insignificant in the long run.

This clearly shows that both elasticity and absorption approaches improved the trade balance but monetary measures have deteriorated it. Hence; the government should take follow contractionary monetary policy and absorption approach through productivity improvement, diversification of export sectors and expansion of import computing industries to overcome trade deficit.

This paper utilized secondary data sourced from a reliable institution to analyse the impact of monetary policy instruments on net import in Nigeria. The data on net import, money supply, interest rate, exchange rate, and foreign reserve were gathered from the Central Bank of Nigeria (CBN) statistical bulletin (2025).

The purpose of this seminar is to analyse the impact of monetary policy instruments on net import in Nigeria. Following modification of the model framework of Ogbu (2024). In his study, he made use

of ARDL technique to estimate the impact of monetary policy on importation, represented as;

$$NM = \beta_0 + \beta_1 MS + \beta_1 INTR + \beta_1 EXCH + \mu$$

Where: NM is net import; MS is money supply; INTR is interest rate; EXCH is exchange rate. μ is stochastic or disturbance term, β_0 is constant or intercept.

In the current study, the baseline regression equation for this paper is captured as:

$$\ln NM_t = \pi_0 + \pi_1 \ln MS_t + \pi_2 INTR_t + \pi_3 CRR + \pi_4 \ln EXCH_t + \mu_t$$

Where: NM is Net import (in million naira); MS is Money Supply (in billion naira); INTR is Interest Rate (in percentage); CRR is Cash Reserve Ration (in percentage); EXCH is Exchange Rate (nominal rate); π_0 = Autonomous parameter estimates.

$\pi_1 - \pi_4$ = Coefficients of monetary policy instruments (money supply, interest rate, cash reserve ratio, and exchange rate).

μ_t = Error term.

On apriori expectations basis, the slopes of Money Supply (MS), Interest rate, and Cash Reserve Ratio (CRR) are assumed to be negative ($\pi_1 < 0$, $\pi_2 < 0$, $\pi_3 < 0$), whilst Exchange Rate is assumed to be positive ($\pi_4 > 0$) and have significant impact on Net import. The first stage of analysis was to examine the stationarity properties of each of the variables using augmented dickey-fuller (ADF) approach. Upon confirming the stationarity of the time series data, the subsequent essential step was evaluating the possible long-term links among the variables. The research used the co-integration approach for analyzing the long-term relationship between monetary policy adoption and foreign trade in Nigeria.

The unrestricted ARDL model is captured as follows:

$$NM_t = \pi_0 + \sum_{i=0}^{p-1} \pi_i \Delta \ln MS_t + \sum_{i=0}^{q-1} \pi_i \Delta INTR_t + \sum_{i=0}^{r-1} \pi_i \Delta \ln CRR_t + \sum_{i=0}^{s-1} \pi_i \Delta \ln EXCH_t + \sum_{i=0}^{f-1} \pi_i \Delta NM_t + \pi_6 NM_{t-1} + \pi_7 \ln MS_{t-1} + \pi_8 INTR_{t-1} + \pi_9 \ln CRR_{t-1} + \pi_{10} \ln EXCH_{t-1} + \mu_t$$

Δ denotes the first difference of the variables, capturing the short-run changes.

$\pi_1-\pi_5$ are the short-run coefficients for the lagged differences of MS, INTR, CRR, EXCH, and NM, respectively; while $\pi_6-\pi_{10}$ are the long-run coefficients of MS, INTR, CRR, EXCH, and NM.

III. RESULTS AND DISCUSSIONS

Descriptive Statistics Results

Descriptive statistics provide a summary of the main characteristics of the data, offering insights into the central tendency, dispersion, and distribution of each variable in the dataset. These statistics include the mean, maximum, minimum, standard deviation, skewness, kurtosis, and the Jarque-Bera test for normality as captured in Table 1:

Table 1: Descriptive Statistics

	NM	MS	INTR	CRR	EXCH
Mean	-1447519.0	12079308	13.53236	12.93548	155.4271
Maximum	7905599	51761778	26.00000	32.50000	425.9792
Minimum	-5822589	129085.5	6.000000	1.000000	17.29845
Std. Dev.	2908140	14060468	3.819218	8.565257	114.7522
Skewness	0.888797	1.219481	0.891431	0.741294	0.824599
Kurtosis	4.637115	3.687766	5.517024	2.958525	2.913175
Jarque-Bera	7.543319	8.299197	12.28893	2.842162	3.520666
Probability	0.023914	0.015808	0.002145	0.241455	0.171988
Observation	31	31	31	31	31

Source: Researcher's Computation Using EViews-12 (2025)

The net import (NM) has a mean value of -1447519.0 (million naira), indicating a negative value of net import within the study period. The maximum observed value for NM is 7905599 (million naira), which indicated a trade balance deficit, which means there is over-reliance on foreign commodities, while the minimum value of -5822589 (million naira) reflects periods of trade balance surplus.

The standard deviation of 2908140 suggested high variability in the net import over time. The skewness value of 0.89 indicated that NM is moderately positively skewed, meaning the right tail of the distribution is longer than the left tail. The kurtosis of 4.6 is above 3, indicating a leptokurtotic distribution, meaning that the net import distribution is more

peaked and has fatter tails than a normal distribution. The Jarque-Bera test statistic of 7.54 with a probability of 0.02 suggested that NM is not normally distributed, as the result is statistically significant at the 5% level.

For money supply (MS), the mean value is 12079308 (million Naira), signifying that, on average, money supply was high during the study period. The maximum value of 51761778 (million Naira) indicated a stimulus to a boost in aggregate demand. The minimum value is 129085 (million Naira), which is relatively low signifying slow economic activity.

The high standard deviation of 14060468 (million Naira) points to the fact that MS during the study period is more spread out. The skewness of 1.22 shows that MS is substantially positively skewed, indicating a right-skewed distribution with a long tail. The kurtosis value of 3.69, which is above 3, suggested a leptokurtic distribution, implying that the data were more peaked than a normal distribution. The Jarque-Bera test statistic of 8.29 with a probability of 0.016 indicated that MS is not normally distributed.

The Interest Rate (INTR) had a mean of 13.53 percent, reflecting a moderate average level of INTR during the study period. The maximum of 26.00 percent highlighted a peak period of high interest rate pegged by the Central Bank, while the minimum of 6.00 percent represented periods of lower interest rate. The standard deviation of 3.82 percent reflected low variability in INTR. The skewness of 0.89 showed that the distribution of INTR is so close to being symmetrical with a very slight right skew.

The kurtosis value of 5.52, which was above 3, suggested a leptokurtic distribution, implying that the data were more peaked than a normal distribution. The Jarque-Bera statistic of 12.29 and a probability of 0.002 suggested that INTR deviated significantly from normality, as the probability value is less than 5%, indicating not a normal distribution.

The cash reserve ratio (CRR) had a mean value of 12.94 percent, indicating a moderate level of CRR within the study period. The maximum observed value for CRR was 32.5 percent, while the minimum

value was 1.00 percent. The standard deviation of 8.56 percent suggested low variability in the CRR over time. The skewness value of 0.74 indicated that CRR was slightly positively skewed, meaning the right tail of the distribution is longer than the left tail. The kurtosis of 2.96 which was below 3, suggested a distribution flatter than normal, characteristic of a platykurtic distribution. The Jarque-Bera statistic of 2.84 and a probability of 0.24 suggested that CRR did not deviate significantly from normality, as the probability value was greater than 5%, indicating an approximately normal distribution.

The exchange rate (EXCH) has a mean of 155.43 (Naira to 1 US\$). The maximum value of EXCH during the study period was 425.98 (Naira to 1 US\$). The minimum value is 17.30 (Naira to 1 US\$). The standard deviation of 114.75 reflected high variability, indicating that exchange rates had fluctuated widely.

EXCH has a skewness of 0.82, indicating a moderately positive skewness, which implied that the data distribution is slightly right. The kurtosis value of 2.91, being less than 3, implied a platykurtic distribution with a flatter peak than a normal distribution. The Jarque-Bera statistic of 3.52 and a probability of 0.172, highlighted a normal distribution of exchange rate data with a probability value greater than the 5% level of significance.

Unit Root Test

Unit root tests are essential in time series analysis to determine whether variables are stationary, meaning their statistical properties do not change over time. The result is presented in Table 2:

Table 2: Summary of Unit Root Test Results

Variable	ADF Test Statistics	Critical ADF Test Statistics	Order of Integration
NM	-8.550723	-3.689194*	I(1)
MS	-3.464144	-2.963972**	I(1)
INTR	-8.664299	-3.670170*	I(1)
CRR	-4.339639	-3.670170*	I(1)
EXCH	-5.210077	-4.296729*	I(1)

Note: The tests include intercept with trend; * and ** significant at 1 and 5.

Source: Researcher's Computation Using EViews-12 (2025)

The net import (NM) was found to be stationary at the first difference, denoted as I(1), with an ADF test statistic of -8.550723, which was significant at the 1% level compared to the critical value of -3.689194. Similarly, the money supply (MS) was found to be stationary at the first difference, also integrated of order one, [I(1)].

The ADF test statistic for MS was -3.464144, significant at the 5% level compared to the critical value of -2.963972. Furthermore, the interest rate (INTR) was stationary at first difference [I(1)], with an ADF test statistic of -8.664299, which is significant at the 1% level against the critical value of -3.670170.

The cash reserve ratio (CRR) was found to be stationary at first difference [I(1)], with an ADF test statistic of -4.339639, which was significant at the 1% level compared to the critical value of -3.670170. Lastly, the exchange rate (EXCH) was found to be stationary at first difference [I(1)], with an ADF test statistic of -5.210077, significant at the 1% level relative to the critical value of -4.296729.

Co-integration Results

Co-integration analysis is used to determine whether a long-run equilibrium relationship exists between non-stationary variables that are integrated of the same or different orders, typically I(1) or I(0). The co-integration result is presented in Table 3.

Table 3: Bound Test-Co-integration Results

F-Bounds Test	Null Hypothesis: NO levels relationship			
	Value	Significance	I(0)	I(1)
Test Statistic	3.443235	10%	2.2	3.09
F-statistic	4	5%	2.56	3.49
K		2.5%	2.81	3.87
		1%	3.29	4.37

Source: Researcher's Computation Using EViews-12 (2025)

The calculated F-statistic of 3.443235 was greater than the upper bound value of 3.09, the null hypothesis of no levels relationship was rejected at the 5% significance level. This result suggested that there was a statistically significant long-run relationship between net import and the monetary

policy instruments (MS, INTR, CRR, and EXCH), indicating that these instruments move together over time in a stable equilibrium.

ARDL (Short and Long Run) Estimates

The study has established a co-integrating relationship between monetary policy instruments and net imports in Nigeria; therefore, it proceeds to estimate the error correction and long-run models. The ARDL-ECM results examine how the ARDL model adjusts toward long-run equilibrium. The parsimonious result is presented in Table 4.

Table 4: ARDL-ECM and Long-run Result
 Dependent Variable: NI

ECM Estimates				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNMS)	-4252528	0.123026	0.000000	0.0000
D(LNMS(-1))	11104693	2172963	0.000000	0.0000
D(LNMS(-2))	6757741	2161851	0.000000	0.0000
D(INTR)	872356.5	154311.1	5.653234	0.0013
D(INTR(-1))	413836.1	121514.3	3.405659	0.0044
D(CRR)	410638.9	74102.96	5.541465	0.0015
D(LNEXCH)	-1470096	832012.2	-1.766916	0.1277
D(LNEXCH(-1))	4278995	910608.6	4.699049	0.0033
D(LNEXCH(-2))	-4900245	1126799	0.000000	0.0000
CoIntEq(-1)*	-0.318069	0.051682	-6.154315	0.0008
Long-Run Estimates				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNMS	2823070	10048065	0.280957	0.7882
INTR	-244501.5	1570330	-0.153701	0.8814
CRR	1371220	1888967	0.725910	0.4952
LNEXCH	-5949350	14830296	-0.401162	0.7022
Reliability Estimates				
R-squared	0.950817			
Adjusted R-squared	0.883748			
Durbin-Watson stat	2.716187			

Source: Researcher's Computation Using EViews-12 (2025)

The coefficient of the error correction term, CoIntEq(-1), in the ARDL model was -0.318069, with a t-statistic of -6.154315 and a probability of 0.0008. This result was highly significant at the 1% level, indicating a strong adjustment mechanism back to the long-run equilibrium after any short-term shocks. A coefficient error correction of -0.318065 indicated a slow adjustment, therefore, the model

suggested that 31.81% of the disequilibrium is corrected in the next period.

The coefficient for MS is -4252528, with a t-statistic of 0.000000 and a probability of 0.0000, indicating a highly significant negative relationship at the 1% level. This implied that a 1% increase in the money supply is associated with a decrease in the net import by 4252528 (million naira) in the short run.

For INTR, the coefficient was 872356.5, with a t-statistic of 5.653234 and a probability of 0.0013, signifying a statistically significant positive relationship at the 1% level. This positive relationship suggested that an increase in the interest rate contributes to an increase in net import in the short run.

The coefficient for CRR was 410638.9 and it was statistically significant at the 1% level. This meant that a 1% increase in CRR would lead to an increase in net import by 410638.9 (million naira).

The study, however, did not find statistically significant relationship between net import (NI) and all independent variables used in the study (MS, INTR, CRR, EXCH).

Discussion of Findings

Findings from the study showed that money supply (MS) had a significant but negative impact on net import in Nigeria. This implies that an increase in money supply often leads to lower interest rates, making borrowing cheaper for businesses, consequently encouraging/increasing local production and discouraging/decreasing imports, and vice versa. This aligns with the findings of Berhe (2020), who observed that increased money supply deteriorates net import. Similarly, Sikiru (2020) opined that increase in money supply and promotion of the total export of goods and services will lead to decrease in net import in Nigeria.

Conversely, the study revealed that the Interest Rate (INTR) had a positive and significant impact on net imports in Nigeria. When interest rates are found to have a positive and significant relationship with net imports, it means that as interest rates rise, net imports (imports minus exports) also increase. This is

an intriguing result because it runs counter to the conventional expectation that higher interest rates suppress demand. This implies that, higher interest rates often attract foreign capital inflows, strengthening the domestic currency. In the short run, this appreciation makes imports cheaper and exports less competitive, driving up net imports. While exports may become less competitive due to the stronger currency, imports rise, worsening the trade balance before longer-term adjustments occur. This conforms to the study of Berhe (2020), where interest rate was found to have a significant and positive effect on trade balance in Ethiopia.

Similarly, the study also revealed that cash reserve ratio (CRR) had a positive and significant impact on net imports in Nigeria. When the CRR is found to have a positive and significant relationship with net imports in the short run, it means that raising the CRR, that means forcing banks to hold more reserves with the central bank, leads to an increase in net imports during the immediate period.

This is a fascinating outcome because CRR is typically seen as a contractionary tool. A higher CRR restricts banks' ability to lend, tightening domestic credit. In the short run, this can reduce financing for local producers, weakening their ability to meet domestic demand. Hence, with domestic production constrained, consumers and firms may turn to foreign goods to fill the gap, driving up imports. This conforms to the study of Nzeh et al. (2024), who evaluated the response of monetary policy to capital inflows in Nigeria and found cash reserve requirements (CRR) responding positively to shocks in capital inflows.

IV. CONCLUSION AND RECOMMENDATIONS

In conclusion, this study provides a comprehensive analysis of the impact of monetary policy instruments on net import in Nigeria, exploring the long-run relationships between key monetary policy instruments such as money supply (MS), interest rate (INTR), cash reserve ratio (CRR), and exchange rate (EXCH); and the net import (NM).

The findings largely revealed impacts that counter the relevant economic theories, except for the impact of

money supply (MS). It indicated that MS had a significant but negative effect on net import, suggesting that increase in money supply ultimately enhances trade balance by influencing a decrease in net import.

On the other hand, INTR showed a positive and significant impact on net import, reflecting how increase interest rate in the short run may severe domestic demand but attract foreign capital inflows, . Similarly, CRR had a significant and positive impact on net import, highlighting that tightening domestic credit can reduce financing for local producers. Hence, with domestic production constrained, consumers and firms may turn to foreign goods to fill the gap, driving up imports in the short run.

The following recommendations were made based on the findings:

Considering the negative impact of money supply on net imports, the government of Nigeria should implement policies that encourage local production of goods that Nigeria heavily imports (machinery, refined petroleum products, food items) through tax incentives, subsidies, and infrastructure support.

Reflecting on the positive impact of interest rates on net imports, the government of Nigeria should implement policies that establish special intervention funds at below-market interest rates for manufacturers and SMEs to reduce reliance on imported goods.

The government, through its agencies, should apply lower CRR requirements for banks that channel credit into sectors producing import substitutes (agriculture, manufacturing, pharmaceuticals), while maintaining higher CRR for banks heavily financing consumer imports.

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