

Nigerian Trade Dynamics: A Cyclical Analysis

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Abstract

Nigeria's economic development is heavily dependent on trade, which is a major factor in the country's GDP growth, foreign exchange profits, and job possibilities. Nonetheless, there are cyclical patterns inherent in Nigerian trade dynamics, which may have a big impact on macroeconomic stability, how policies are made, and how well the economy performs overall. Using research showing a substantial association between trade variations and patterns of economic development, the paper explores the complex relationship between trade cycles and economic cycles. Since Nigeria is heavily dependent on oil exports, it is particularly aware of how the oil trade shapes overall trade cyclicity and how this makes the country susceptible to changes in global demand and commodity prices. Additionally, the analysis delves into the complex link that exists between trade cycle volatility and trade openness. It assesses divergent views found in the literature, with some arguing that greater trade openness can exacerbate trade cycle volatility and worsen economic instability, while others contend that greater trade openness can help reduce trade cycle fluctuations and improve economic stability.

Keywords:

Analysis, Trade,
Economic
development VAR,
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Background to the Study

Understanding the cyclical patterns and dynamics of trade is critical for successful policymaking and economic management, as trade plays a significant role in Nigeria's economic development. In order to shed insight on the causes, patterns, and consequences of these patterns, this paper reviews current research that have examined the cyclical nature of trade in Nigeria. Hodrick-Prescott filter was used by Okafor and Shaibu (2019) to separate GDP and trade data from 1981 to 2018 into their trend and cyclical components. According to their research, trade and economic cycles are highly connected, which means that changes in trade may have a big influence on Nigeria's overall economic performance. Olayungbo and Adediran (2020), who used a vector autoregressive (VAR) model to study the cyclical dynamics of trade and economic growth in Nigeria from 1981 to 2019, corroborated similar findings. The findings of their study suggest that favourable trade shocks have a beneficial impact on economic growth, but negative trade shocks might impede growth. This underscores the need of upholding a favourable trade balance (Apere, & Karimo, 2015).

Numerous studies have examined how Nigeria's oil trade shapes the cyclical patterns of the nation's overall trade dynamics, given its substantial reliance on oil exports. Using a structural vector autoregressive (SVAR) model, Adekola et al. (2021) examined the cyclical behaviour of the oil and non-oil trade in Nigeria from 1981 to 2019. According to their findings, compared to non-oil trade cycles, oil trade cycles are more volatile and have a bigger effect on total trade cyclicity. Additionally, Okorie and Ndubuisi (2020) looked examined the cyclical patterns of Nigeria's non-oil and oil exports from 1981 to 2019 using a Markov-switching autoregressive model. According to their research, oil export cycles have larger amplitudes and longer durations than non-oil export cycles, which emphasises the need of broadening Nigeria's export market.

A structural vector autoregressive (SVAR) model was employed by Okunnu et al. (2019) to examine the influence of trade openness on trade cycles in Nigeria between 1981 and 2019. According to their research, trade liberalisation may enhance trade cycle volatility and, if left unchecked, may worsen economic instability. On the other hand, Ajayi and Olowookere (2021) used a smooth transition autoregressive (STAR) model to examine how trade openness affected Nigerian trade cycles between 1981 and 2019. According to their findings, increased trade openness may be able to reduce trade cycle volatility and so promote more economic stability.

These studies' conclusions have important policy ramifications for Nigeria's trade and economic policies. In order to lessen the economy's susceptibility to changes in commodity prices and increase its resilience to trade shocks, a number of scholars have stressed the importance of export diversification, particularly in the non-oil sector (Adekola et al. 2021, Okorie and Ndubuisi, 2020). Furthermore, studies have shown how crucial it is to preserve a positive trade balance and advance trade openness while also putting policies in place to lessen any potential negative effects on trade cyclicity and economic stability (Okunnu et al., 2019, Ajayi and Olowookere, 2021). The focus of

Akeem, U. O. (2011) was on how trade affects the economic growth of Nigeria. He came to the conclusion that local industries should develop competitive goods and that international trade policies should be reexamined using the OLS methodologies. Using dynamic correlation analysis, Fidrmuc et al. (2011) examined business cycles and globalisation in China and a few other OECD nations. It was demonstrated that the dynamic correlations between China's and the OECD nations' economic cycles are favourable for short-term developments and negative at business cycle frequencies. Moreover, the degree of economic cycle synchronisation within the OECD region is diminished by trade and financial movements between China and the member nations of the Organisation, particularly at business cycle frequencies. Thus, variations in the business cycles of OECD nations may be explained by varying levels of involvement in globalisation.

A method for identifying industry cycles was presented by Hao and Mathews (2007), who then applied the method to industrial data from three industries: semiconductors, PCs, and FPDs. They contrasted the industry cycles within each of the three industries with those recommended by industry experts in the relevant industries. Using vector autoregressive (VAR) models, they also looked at the elements that affected the cyclical dynamics of the sectors and found that capacity and aggregate economic dynamics are among the most important drivers of the semiconductor industry cycle.

In order to investigate the origins of business cycles and derive implications for policy analysis, Alege (2009) created a small business cycle model for Nigeria that was modelled after the Dynamic Stochastic General Equilibrium (DSGE) model. The three policy shocks that were the subject of this article were the supply of money, technology, and exports on a few macroeconomic parameters. In order to capture the terms of trade transmission channel, the study incorporated the export sector into the Nason and Cogley (1994) and Schorfheide (2000) models. He demonstrated that both real and nominal shocks drove the Nigerian business cycle using the Bayesian estimating approach.

A novel empirical approach for examining the dynamics of trade balance dynamics in response to various macroeconomic shocks was created by Prasad (1999). In an effort to reconcile these findings with unconditional correlations discovered in the data, the model offers a synthetic viewpoint on the conditional correlations between the trade balance and the economic cycle that are produced by various shocks. The findings showed that nominal shocks have been a significant factor in determining the prediction error variance for changes in the trade balance of G7 nations since the Bretton Woods era.

Some fresh empirical viewpoints on the connection between global commerce and macroeconomic swings in industrial economies were offered by Prasad and Gable (1998). Initially, a thorough collection of stylized data about trade variable swings and their causes was provided. With a focus on sources from 1991 to 2022, this looked at recent research on the cyclical study of trade dynamics in Nigeria. The literature assessment underscores the robust association between economic and trade cycles, the noteworthy

influence of oil trade on the overall cyclicity of trade, and the intricate link between trade openness and trade cycle volatility. These results highlight the necessity of strategic trade openness management, export diversification, and efficient trade policies to support economic stability and long-term prosperity in Nigeria.

Empirical Considerations

A multivariate structural time series econometric model is used in this investigation. The goal was to not only categorise various macroeconomic shocks but also investigate how these shocks affected pertinent trade indicators. We have taken the empirical framework from Gable and Prasad (1998). Two primary pathways that govern the link between trade and cyclical production changes were identified by Prasad and Gable (1998). The first channel is through domestic demand, and the second is through changes in exchange rates, both of which remain constant when considering foreign demand circumstances. This suggests that the cyclical dynamics of commerce may be influenced by the causes of business cycle variations. (i) Take into consideration a scenario in which a contraction in domestic fiscal policy results in a contraction in total domestic demand. Under the Mundell-Fleming paradigm, real exchange rate depreciation would result from complete capital mobility. This will result in a negative link between cyclical output and the trade balance (exports), in addition to the decreased domestic demand. As a result, the actual exchange rate and domestic demand impacts operate in the same direction. (ii) Consider a monetary recession, which would also likely cause a decline in home demand. This would result in a rise in exchange rates, which would have the opposite effect on exports and the trade balance as the effect of domestic demand. The empirical question of these two impacts' respective relevance would rely on different trade elasticities. For an empirical examination of trade cycles in Nigeria to be reliable, trustworthy and high-quality data sources are essential. Trade statistics from the National Bureau of Statistics (NBS), the Central Bank of Nigeria (CBN), and foreign agencies like the World Bank and the foreign Monetary Fund (IMF) have been used in a number of studies. [Okayunnu et al., 2019; Olayungbo and Adediran, 2020]. But several of these data sources have been questioned for consistency and dependability, especially when it comes to documenting informal trade movements (Bouet et al., 2020).

Nigerian trade cycles have been examined using a variety of econometric methods. The Hodrick-Prescott filter is a frequently employed method that separates time series data into trend and cyclical components [Okafor & Shaibu, 2019]. In order to investigate the connections between trade cycles, economic cycles, and other macroeconomic variables, structural vector autoregressive (SVAR) models have also been frequently used [Adekola et al., 2021, Aigheyisi & Edore, 2020]. Markov-switching autoregressive models have also been used in research to capture regime transitions and possible nonlinearities in trade dynamics [Okorie & Ndubuisi, 2020].

Three categories of shocks were distinguished in the empirical research: nominal, supply, and demand shocks. Three long-term constraints are used to identify the empirical model: demand and nominal shocks have no long-term impacts on output levels, and

nominal shocks have no long-term implications on real exchange rate levels. The literature has measured trade openness, a crucial variable in trade cycle research, using a variety of proxies. One often used metric is the trade openness index, which is determined by dividing the total of imports and exports by GDP [Ajayi & Olowookere, 2021]. Alternative metrics, such as tariff rates or indices of trade restrictiveness, have been suggested by some scholars, who have criticised this one for failing to adequately reflect the scope of trade liberalisation policies [Usman & Arene, 2019].

The significance of breaking down trade data to capture the unique dynamics of various trade components has been underlined in a number of studies. For example, considering the importance of oil exports to Nigeria's trade dynamics, Adekola et al. [Adekola et al., 2021] examined the cyclical behaviour of oil and non-oil trade separately. Comparably, Okorie and Ndubuisi (2020) looked at the distinct cyclical patterns of oil and non-oil exports, emphasizing the variations in their length and volatility.

The identification technique has a key advantage in that the short-term dynamics are uncontrolled. Hence, one way to assess the identification method is to see if the estimates of the empirical model's short run dynamics seem plausible and consistent with the theoretical model's predictions. This identification strategy also avoids requiring us to make a decision on the causal ordering of the variables in the VAR. This is helpful because there's no concrete proof that any of these factors are predetermined in a Granger causal sense in relation to the others. Exchange rate regimes, oil price shocks, and the implementation of trade liberalisation policies are just a few examples of the economic events and policy changes that have impacted Nigeria's trade dynamics. Robust empirical analysis must take probable structural disruptions and regime transitions into account [Adedokun, 2021]. To capture these effects, methods such as regime-switching models and the Bai-Perron test for numerous structural breakdowns can be used [Abdullahi et al., 2019].

External variables that impact Nigeria's trade cycles include variations in commodity prices, trade policy of key trading partners, and global economic conditions. To account for these external factors, several researchers have included variables including oil prices, global GDP growth, and trading partner characteristics in their empirical models [Danha et al., 2020, Adeniyi et al., 2021]. The aforementioned demonstrates the shortcomings of trade (or current account) dynamics models (e.g., Backus, Kehoe, and Kydland, 1992; and Elliott and Fatás, 1996) that exclusively concentrate on productivity shocks. Prasad and Gable (1998) state that econometric models (e.g., Lastrapes, 1992; Robertson and Wickens, 1997) that only differentiate between real and nominal shocks would also be insufficient for modelling the dynamics of trade balances because supply and demand shocks—which are both potentially real shocks—have distinct effects on the real exchange rate.

Stylized Facts

The Extent of Trade in Nigeria

This essay started by looking at the value of commerce to the Nigerian economy. The ratio of total trade to real GDP is a crucial metric that is frequently used to assess how open an economy is to foreign commerce. The first column and last row of Table 1 display the mean value of this ratio between 1981 and 2012, which was $1.34E^05$. As the first row of Table 1 illustrates, the mean value of this ratio climbed progressively over time, rising from $4.68E^07$ in the years 1981–1989 to $7.89E^06$ between 1990 and 1999 and then to $2.65E^05$ in the years 2000–2012. Despite the extremely tiny average values of this ratio in both the complete and subsamples, they show how important commerce is becoming to the Nigerian economy. Additionally, the preceding claim is supported by the fact that the mean value of the nonoil and oil trade to real GDP ratios in columns 2 and 3 of Table 1 grew across the subsamples. While non-oil commerce grew more slowly from 0.06 to 0.84 and then to 4.84 in the same years and averaged 3.26 between 1991 and 2022, the oil trade climbed fast from 0.065 in 1991 – 1999 to 1.79 in 2000 – 2009 and further to 10.86 in 2010 – 2022. This demonstrated that, relative to non-oil commerce, the Nigerian economy has benefited more from the oil trade. Furthermore, between 1991 and 2022, the real GDP was not significantly impacted by total export, nonoil export, or oil export, as seen in columns 4, 5, and 6. Nonetheless, their significance to the Nigerian economy has grown. In the years 1991–1999, 2000–2009, and 2010–2022, nonoil exports climbed from 0.003 to 1.56 and 10.71, respectively, whereas oil exports grew in the same time frame from 0.074 to 1.86 and 12.28. The aforementioned provides unambiguous proof of how trade, both oil and nonoil, has become increasingly significant to the Nigerian economy since 1991. Therefore, as the nation grows more and more integrated into the global economy through trade, having a solid grasp of how trade enhances or mitigates internal macroeconomic swings is crucial (Apere & Karimo, 2015).

Table 1: Measures of Trade Openness

	TT/GDP	NOT/G DP	OT/GDP	X/GDP	NOX/G DP	OX/GDP
1991 – 1999	5.57E-08	0.067405	0.065745	0.074442	0.003847	0.074782
2000 – 2009	8.78E-07	0.849449	1.792380	1.837330	1.567300	1.864529
2010 – 2022	3.54E-06	4.844528	10.86633	0.409284	10.71115	12.28474
Full Sample	2.43E-06	3.262238	5.627339	5.997425	0.146337	4.737484

Source: Data from CBN, 2022 computed by author

Unconditional Volatility of Trade Variables

Now let's discuss the unconditional volatility of trade variables in relation to Nigeria's business cycle, as determined by the standard deviation of certain quantities and prices. After converting real GDP and nominal effective exchange rate numbers into logarithms, the Hodrick Prescott (HP) filter was used to determine the cyclical components of these logarithms. The HP filter was also used to translate the trade variables to GDP ratio. Prasad & Gable (1998) have previously employed this technique to investigate the factors

influencing trade dynamics in the OECD economies. The standard deviations of the ratio of net export to GDP and domestic output are shown in Table 2's first and second columns. In general, the data indicated that net export is more erratic than total output. Net non-oil export is less variable than net oil export, as seen by columns 3 and 4. Moreover, import volatility is lower than export volatility. Last but not least, the nominal effective exchange rate fluctuates less than the net oil export but more than the production and net non-oil export. The fact that the shock pattern remains mostly constant over time is a significant finding about the mechanics of trade balance. Trade dynamics in the short term may be influenced by shocks that cause changes in the economic cycle.

Table 2: Measures of Volatility of Cyclical Components

	GDP	Net Export/ GDP	Net Nonoil Export/G DP	Net Oil Export/G DP	Import /GDP Export/GDP	NEER	
1991 - 1999	0.040	0.015	0.013	0.018	0.020	0.044	0.253
2000 - 2009	0.001	0.585	0.218	0.572	0.370	0.854	1.052
2010 - 2022	0.008	1.643	0.516	1.624	0.862	1.637	0.074
Full Sample	0.035	1.118	0.304	1.061	0.582	1.163	0.698

Source: Authors' Computation

Unconditional Correlations

The unconditional association between the different trade variables and the cyclical components of output was also investigated in this article. In order to investigate the dynamic patterns in the data, the research explicitly looked at contemporaneous correlations as well as correlations at different leads and lags. Table 3's first row displays the relationship between net exports and the cyclical components of production. Positive values at lag 0, 4, and 8 and negative values at lead 8 and 4 (positive (negative) values in the lead row indicate lead (lag)) show that net export is pro-cyclical concurrently with recessions and countercyclical during recoveries.

Table 3: Correlations of Trade Variables and the Business Cycle

Lead:	8	4	0	-4	-8
GDP, net export/GDP	-0.19	-0.09	0.16	0.04	0.04
GDP, import/GDP	-0.03	0.15	-0.03	-0.29	0.28
GDP, export/GDP	-0.20	-0.07	0.15	-0.06	0.12
GDP, net non-oil export/GDP	0.13	-0.15	0.02	0.24	-0.28
GDP, net oil export/GDP	-0.24	-0.04	0.16	-0.03	0.10

Source: Authors' Computation

International Trade and Business Cycle Recoveries

In short-term macroeconomic projections, international commerce has been given significant weight, particularly in small industrialised and developing nations. For the most part, the external sector has been seen as a key driver of business cycle recovery.

However, Prasad and Gable (1998) point out that there isn't much data supporting the idea that international commerce plays a significant role in spurring economic recovery. Thus, their measurement of the trade balance's contribution to output growth from business cycle troughs was used in this study. The business cycle troughs in 1991 and 2022 were noted in this article (see Figure 1). The contribution of the non-oil trade balance and the international trade balance to production growth across various prediction horizons from cyclical troughs is displayed in Table 4. Following the 1991 cyclical troughs, the trade balance contributed negatively ($\sim 395.0E^8$ percent) to growth during a one-year horizon. However, it became positive in the second horizon and continued to do so for the whole eight-year period. From the first to the eighth horizon, the trade balance had a positive contribution to the recovery from the 2022 cyclical bottom. However, the non-oil balance of trade only contributed positively to the recovery of the business cycle in the first eight horizons, turning negative in the second and subsequent horizons. This is not very disclosing. There is no proof that Nigeria's non-oil trade has aided in economic recovery, despite the fact that trade plays a significant role in business cycle recovery. This might be attributed to the fact that Nigeria's non-oil trade basket is composed of imports of manufactured goods and food and exports of agricultural products and raw materials.

Table 4: The Contributions of International trade to Business Cycle Recoveries

Cyclical Troughs	Contribution of trade balance to output growth from troughs				Contribution of Non-Oil trade balance to output growth from troughs			
	t+1	t+2	t+4	t+8	t+1	t+2	t+4	t+8
1995	4.04E-09	1.72E-06	2.65E-08	6.42E-08	3.27E-09	-7.88E-07	-1.69E-07	-1.82E-09
2022	2.74E-07	1.84E-05	1.43E-06	8.74E-04	4.84E-09	-1.42E-06	-1.77E-06	-6.76E-08

Source: Author's computation

Table 5: The Contributions of Exports to Business Cycle Recoveries

Cyclical Troughs	Contribution of Exports to output growth from troughs				Contribution of Non-Oil Exports to output growth from troughs			
	t+1	t+2	t+4	t+8	t+1	t+2	t+4	t+8
1995	-6.80E-06	3.98E-07	7.54E-05	5.55E-07	-4.87E-09	3.45E-07	6.44E-06	1.14E-03
2022	-2.09E-06	5.54E-07	5.78E-03	3.87E-07	-2.88E-07	4.76E-04	2.65E-03	1.76E-04

Source: Author's computation

The model for estimation is specified as follows:

$$\Delta y_t = m + B_1 \Delta y_{t-1} + B_2 \Delta y_{t-2} + \dots + B_k \Delta y_{t-k} + u_t \quad (1)$$

Since y_t is a column vector made up of three variables—RGDP, EXR, and TB—it is modelled using its historical values and the first difference operator, Δy_t . The following characteristics apply to m , a $k \times 1$ vector of constants, B , $k \times k$ matrix of coefficients, and ρ , a vector of white noise processes

$$\epsilon_t = 0 \text{ for all } t \quad E \epsilon \epsilon' = \begin{pmatrix} \sigma_1^2 & 0 & 0 \\ 0 & \sigma_2^2 & 0 \\ 0 & 0 & \sigma_3^2 \end{pmatrix}$$

When it is expected that the covariance matrix, Ω , is positive definite. As a result, although the ϵ_t 's may be contemporaneously associated, they are serially uncorrelated. An empirical method is used to calculate the lag duration, k . Estimation was done iteratively, starting with the longest lag length found using the information criterion, until the optimal model is reached, or until the model becomes stable (no modulus or eigenvalue sits outside the unit circle), in order to prevent the omission of essential information. The logarithms of the real gross domestic product (RGDP), real exchange rate (EXR), and trade balance (TB) are the logarithms of the real GDP and trade balance, respectively.

The time series characteristics of the variables going into the VAR must be ascertained first. According to the model in Prasad and Kumar (1997), the levels of relative output, the real effective exchange rate, the trade balance to GDP ratio, and other trade ratios are not cointegrated and are all stationary in first differences. In order to confirm that the series are first difference stationary ($I(1)$) and are not cointegrated in their level forms, estimate began with preliminary tests for unit roots and cointegration. To determine how responsive output, exchange rates, and trade balance were to demand, supply, DD, supply, SS, and nominal NM shocks in the economy, the study relied on forecast error variance decomposition and impulse response functions (for a thorough discussion of these concepts, see Greene, 2002 and Johnston & Dinardo 1996).

Outcomes

Table 6 displays the results of the impulse reactions to various shock types for the Trade Balance, Non-Oil Trade Balance, Exports, and Non-Oil Exports. It is clear that trade balances, particularly non-oil trade balances, react favourably to nominal shocks in the near term but turn negative over time. This conclusion implies that the exchange rate impacts on trade balance likely to predominate the output effects of these shocks only in the short term, as nominal shocks cause rises in output to occur together with depreciations in the exchange rate. Nonetheless, the short- and long-term responses of exports and non-exports to nominal shocks were both positive, indicating that the influence of exchange rates outweighs that of output in both scenarios. This is consistent with the results of Eichenbaum and Evans (1995), who found that nominal shocks cause exchange rates to respond quickly and sharply but have relatively little, short-term effects on production. Exports and non-oil exports decline as a result of demand shocks that raise output and cause the exchange rate to appreciate, but trade balance and non-oil trade balance grow. However, there are differing repercussions from supply shocks. The

forecast error variance decomposition results, which are displayed in Table 7, indicate that nominal shocks account for a greater proportion of the changes in all trade variables. Demand shocks in the Trade Balance are followed by supply shocks in the Non-Oil Trade Balance, Exports, and Non-Oil Exports. In the long term, the percentages of volatility explained by these shocks become fixed. Once more, this shows that, even over the long term, nominal shocks predominate over production in explaining changes in trade variables.

Table 6: Impulse responses

Horizon	Trade Balance			Non-oil Trade Balance		
	SS	DD	NM	SS	DD	NM
1	2.53E-07	3.84E-07	2.84E-06	0.10188	0.07638	0.62221
5	5.32E-07	2.41E-07	2.11E-07	0.01267	0.01420	0.03158
10	-1.63E-07	8.73E-08	-1.91E-07	-0.0005	-0.00055	-0.00120
20	1.36E-08	5.62E-08	-4.23E-08	2.09E-05	2.14E05	4.72E-05
30	5.02E-09	1.78E-08	-1.51E-08	-8.18E-07	-8.37E-07	-1.84E-06

Horizon	Exports			Non-oil Exports		
	SS	DD	NM	SS	DD	NM
1	-0.33139	-0.002746	1.486694	-0.210057	-0.013470	1.297489
5	0.00599	-0.003748	0.006249	0.005710	-0.001925	0.003219
10	6.12E-05	-6.01E-08	2.50E-07	4.35E-05	-6.35E-06	1.70E-05
15	4.11E-07	-7.64E-09	2.387E-07	2.98E-07	-5.16E-08	1.24E-07
20	3.05E-09	-5.57E-10	2.156E-08	2.08E-09	-3.51E-10	8.56E-10

Source: Author's computation

Table 7: Error Variance Decomposition

Trade Balance				Non-oil Trade Balance		
Horizo n	SS	DD	NM	SS	D D	NM
1	0.7757	1.782	97.442	2.573	1.446	95.980
5	6.4416	13.238	80.320	5.714	4.390	89.896
10	8.3603	13.813	77.826	5.724	4.400	89.876
15	8.4196	13.870	77.710	5.724	4.400	89.876
20	8.4201	13.899	77.681	5.724	4.400	89.876

Exports				Non-oil Exports		
Horizo n	SS	DD	NM	SS	D D	NM
1	4.733	0.0003	95.266	2.554	0.011	97.436
5	7.472	0.110	92.418	3.807	0.112	96.082
10	7.472	0.110	92.417	3.807	0.112	96.081
15	7.472	0.110	92.417	3.807	0.112	96.081
20	7.472	0.110	92.417	3.807	0.112	96.081

Source: Author's computation

Conclusion

The findings show that commerce—both oil-related and non-oil—is becoming more significant for Nigeria's economy, although trading in oil has historically been more significant. It was discovered that net export was comparatively more erratic than total output. Additionally, imports were less unpredictable than exports, and net non-oil exports were less volatile than net oil exports. Additionally, the nominal effective exchange rate fluctuated less than net oil export but more than output and net non-oil export. Net export is pro-cyclical during recessions and countercyclical during recoveries, according to the unconditional correlation. The study identified two past business cycle troughs in 1991 and 2022, but it found little evidence to substantiate the claim that Nigeria's economic recoveries had been aided by non-oil trade. Moreover, nominal shocks account for a greater proportion of changes in trade variables than output shocks.

Recommendations

According to its findings, this study suggests the following:

1. The Nigerian Monetary Authority should implement prudent monetary policy during recessionary times in order to more effectively leverage the world's resource base.
2. This will promote rapid recovery and production increase.
3. Given that the impacts of monetary policy on trade balance are mostly seen in the short term, Nigeria's monetary policy need to prioritise long-term production increases.

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