

## Foreign exchange volatility and inflation rate in Nigeria

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### Abstract

The study examined exchange rate volatility and inflation rate in Nigeria. This research work is purely based on desk research where the researchers reviewed and discussed what other scholars have done on the subject matter in identifying and analyzing information. The study found that, foreign exchange volatility significantly influences inflation in Nigeria, primarily through imported inflation and altered consumer behaviour. Also, persistent fluctuations in the Naira's value pose challenges to price stability and economic growth. Higher import costs driven by currency depreciation led to increased prices for consumers, eroding purchasing power and creating economic uncertainty. Thus, to mitigate the adverse effects of foreign exchange volatility on inflation, Nigeria must implement comprehensive strategies, including enhancing domestic production capacity, promoting currency stability, and diversifying the economy away from oil dependence. Furthermore, stabilizing the exchange rate, diversifying the economy, and strengthening institutional frameworks will help Nigeria manage forex volatility and maintain sustainable inflation levels, fostering economic resilience.

**Keyword:** Consumer; Desk research; Exchange rate; Fluctuation; Inflation rate; Volatility

### 1. Introduction

Nigeria's economy is heavily influenced by fluctuations in the foreign exchange market, which results in currency instability that directly influences inflation rates. Therefore, exchange rate volatility is the unpredictable and frequent changes in the value of the Nigeria naira relative to other nations currencies (Ojo, 2017). This volatility can lead to inflationary pressures, affecting consumer prices, purchasing power, and overall economic stability (Adebiyi, 2020). Understanding the interplay between forex volatility and inflation is crucial for policymakers aiming to stabilize prices, promote economic growth, and improve fiscal resilience. Similarly, the variability in exchange rate has generated serious discuss amongst public commentators as a result of the essential role plays by exchange rate in the international trade and finance (George-Anokwuru, Obayori & Oriji, 2018).

Nigeria's dependence on imported goods and raw materials makes its economy particularly susceptible to forex fluctuations. Sharp depreciation of the Naira often leads to increased costs for imported goods, which can translate into higher inflation. Conversely, currency appreciation might help contain inflation but could harm export competitiveness (Central Bank of Nigeria, 2023).

Furthermore, the fluctuation of the naira's value against the international currencies in recent years necessitates a comprehensive study of exchange rate volatility and its effect on export trade. This is because of recent, Nigerian economy has been severely impacted by exchange rate volatility and this has hindered the facilitation of trade flows towards the last quarter of the year 2015 till date (Aminu, Nkanta & Obayori, 2025).

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Meanwhile, since Nigeria's independence in 1960 till date, Nigerian government has introduced various exchange rate regimes ranging from fixed exchange regime at par with the British pound and later the American dollar. However, the emergency of the Structural Adjustment Programme (SAP) in 1986 marked the beginning of exchange rate volatility in Nigeria. But to a great extent the fluctuation in the values of the naira to other international currencies remain unabated (Nkanta & Obayori, 2025).

Given the importance of exchange rate in the Nigerian economy, this paper seeks to explore the intricate dynamics between foreign exchange volatility and inflation rates in Nigeria; by examining historical data and relevant case studies, it aims to uncover the mechanisms through which exchange rate fluctuations influence inflation, analyze the prevailing trends, and propose strategies to mitigate the adverse impacts of currency volatility.

## 2. Literature review

### 2.1. Conceptual Clarification

- **Foreign Exchange Volatility**

Foreign exchange volatility pertains to the degree of variation in the exchange rate over time, reflecting market uncertainty and fluctuation intensity (Aminu, Nkanta & Obayori). High volatility indicates unpredictable exchange rate movements, often driven by political instability, oil price shocks, speculative activities, and global economic trends (Johnson, 2018). In Nigeria, the Naira has experienced considerable volatility due to factors such as changes in oil prices, government policies, and global economic conditions (Johnson, 2018). This volatility can pose challenges for businesses, consumers, and policymakers, particularly when it results in heightened inflationary pressures

- **Inflation Rate**

Rising inflation can erode purchasing power and diminish consumer confidence, leading to economic instability. In Nigeria, inflation often arises from various sources, including supply chain disruptions, changes in demand, and currency fluctuations. High inflation rates may prompt central banks to adjust interest rates in an attempt to stabilize the economy. Understanding the relationship between foreign exchange volatility and inflation is vital for formulating effective monetary policies aimed at fostering economic growth and stability. In Nigeria, inflation has been volatile, often linked to exchange rate movements, fiscal deficits, and supply-side constraints (Agbada, 2018).

#### 2.1.1. Overview of Exchange Rate and Inflation in Nigeria

Nigeria's exchange rate regime has evolved over decades, shifting from fixed and pegged rates to managed floating systems. Historically, the Naira experienced periods of stability, followed by episodes of sharp depreciation, especially during oil price collapses and policy inconsistencies (Ojo, 2017). The link between exchange rate movements and inflation has been well-documented, with depreciation often correlating with rising inflation rates (Ibraheem, 2011). Nigeria's currency, the Naira, has experienced a long and complex history of devaluation, significantly impacting the nation's economic and social landscape. Tracing its roots back to the pre-independence era, understanding this history requires examining key turning points and their contributing factors.

**Early Devaluations (1960s-1970s):** Following independence in 1960, the Naira maintained a fixed exchange rate pegged to the British Pound. However, the discovery of oil in the late 1960s led to increased government spending and rising imports, putting pressure on the currency. Devaluations in 1967 and 1971 aimed to address this imbalance but were met with limited success (CBN, 2023).

**Structural Adjustment Era (1980s-1990s):** Since the 1980s, Nigeria has witnessed frequent episodes of currency devaluation and exchange rate adjustments, often as a result of economic reforms and external shocks. The economic reforms of the International Monetary Fund, which introduced Structural Adjustment Program (SAP) in the 1980s led to significant volatility, which, in turn, contributed to soaring inflation rates (Ibraheem, 2011). The 2008 global financial crisis and subsequent decline in oil prices triggered further depreciation of the Naira, resulting in a pronounced inflationary environment.

**Managed Float and Further Devaluations (2000s-Present):** By the late 1990s, Nigeria adopted a managed float system, allowing the Naira to fluctuate within a band determined by the Central Bank of Nigeria (CBN). However, external shocks like the 2008 global financial crisis and declining oil prices triggered further devaluations in 2008 and 2016 (World Bank, 2023). In recent years, Nigeria has experienced persistent inflation, driven by volatility in foreign

exchange rates. The Naira's depreciation increases the cost of imports, putting upward pressure on prices within the economy (Okafor, 2019). Consequently, consumers face higher prices for essential goods and services, resulting in erosion of purchasing power and potentially leading to social unrest.

**Impact and Ongoing Challenges:** Currency devaluation in Nigeria has had multifaceted consequences. While it can boost exports and attract foreign investment, it often leads to higher import costs, inflation, and reduced living standards. The impact falls disproportionately on low-income earners and can exacerbate social inequalities (Agbada, 2018).

Looking ahead, managing currency stability remains a challenge for Nigeria. Balancing the need for export competitiveness with controlling inflation and protecting citizens' purchasing power requires a multi-pronged approach. Diversifying the economy away from oil dependence, promoting non-oil exports, and strengthening fiscal discipline are crucial steps towards a more stable and resilient currency.

#### *2.1.2. Causes of Forex Volatility in Nigeria*

**Fluctuations in global oil prices:** Fluctuations in global oil prices significantly contribute to Forex volatility in Nigeria, largely due to the country's heavy reliance on oil exports. As one of Africa's largest oil producers, Nigeria's economy is deeply intertwined with the performance of the oil market. Fluctuations in global oil prices serve as a significant driver of Forex volatility in Nigeria, creating a complex interplay between economic performance, government revenue, investor sentiment, and inflationary tendencies. Understanding this relationship is crucial for policymakers and investors alike in navigating the challenges of the Nigerian economic landscape.

**Political and economic uncertainties:** political and economic uncertainties play a crucial role in influencing Forex volatility in Nigeria. The resulting environment of unpredictability affects investor confidence, capital flows, and exchange rates. Addressing these uncertainties through stable governance, consistent policy frameworks, and improved security can contribute to a more stable currency and lower volatility in the foreign exchange market.

**Capital flight and speculative activities:** Capital flight and speculative activities significantly contribute to Forex volatility in Nigeria. The combined effects of these factors can create an unstable economic environment, impact the value of the Naira and complicating the landscape for both local and foreign investors. Addressing these challenges is essential for stabilizing the Forex market and fostering sustainable economic growth.

**Foreign direct investment variations:** variations in Foreign Direct Investment significantly influence Forex volatility in Nigeria. The interconnectedness of FDI flows, capital movement, and investor sentiment determines the strength and stability of the Naira in the foreign exchange market. By addressing the factors that drive FDI variability, Nigeria can work towards reducing currency volatility and fostering a more stable economic environment.

**Policy inconsistencies and foreign exchange interventions:** policy inconsistencies and foreign exchange interventions significantly impact Forex volatility in Nigeria. The lack of coherent policies and the nature of interventions can create an unpredictable currency environment that affects investor behavior, capital flows, and overall economic stability. Addressing these challenges is crucial for fostering a more stable and resilient Forex market in Nigeria.

## **2.2. Theoretical Review**

One theory that provides a foundation for understanding how exchange rate fluctuations influence inflation is the purchasing power parity (PPP) theory. PPP suggests that in the long run, exchange rates should adjust to equalize price levels across countries. Thus, significant deviations or volatility in the exchange rate can lead to inflationary or deflationary pressures. When the Naira depreciates sharply, the cost of imported goods rises, fueling inflation. Conversely, stable or appreciating exchange rates tend to help contain inflation.

According to the PPP theory, changes in exchange rates should reflect changes in relative price levels between countries, assuming the absence of transaction costs and barriers to trade. In the context of currency devaluation, when a country's currency depreciates relative to another, its goods become cheaper for foreign buyers, potentially increasing export volumes.

Conversely, imports become relatively more expensive for domestic consumers, which may lead to a decrease in import demand (Jones, 2020). However, the extent to which changes in exchange rates affect import and export volumes depends on various factors, including the elasticity of demand for traded goods, trade policies, and economic conditions.

Additionally, the PPP theory suggests that currency devaluation can influence inflation rates, which, in turn, may affect consumer purchasing power and overall demand for goods and services. Overall, the PPP theory provides a framework for understanding how changes in exchange rates, such as currency devaluation, can affect inflation rate and consumer purchasing power in Nigeria

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### 3. Methodology

This research work is purely based on desk research. Desk research is a research type that uses secondary research. Here the researcher review and discuss what other scholars have done. The research approach is the practice of identifying, selecting, processing and analyzing information. The discussion approach entails the use of currently existing evidence in desk research via research publications and related papers contained in research studies.

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### 4. Findings

The findings based on the desk research are highlighted below;

- **Exchange Rate Movements and Price Levels:** Devaluation or depreciation of the Naira increases the local currency cost of imported goods and raw materials, directly translating into higher consumer prices (Jones, 2019). For Nigeria, imports constitute a significant portion of consumption and production inputs, making inflation highly sensitive to exchange rate shocks.
- **Imported Inflation:** Forex volatility often leads to imported inflation, as higher costs of foreign goods are passed onto consumers (Johnson, 2018). During periods of sharp Naira depreciation, prices for imported food, fuel, machinery, and raw materials surge, contributing to overall inflation.
- **Consumer Purchasing Power and Spending Patterns:** Exchange rate fluctuations influence consumer behaviour. Depreciation diminishes the Naira's purchasing power, forcing households to spend more on essential imports, thereby reducing disposable income and altering consumption patterns (Agbada, 2018). This dynamic can perpetuate inflationary trends, especially when combined with supply-side shortages.
- **Inflation Expectations and Policy Response:** Market expectations of continued depreciation can lead to anticipatory price increases, further fueling inflation. Policymakers often respond with monetary tightening, but persistent volatility complicates effective inflation control (CBN, 2023).
- **Empirical Evidence:** During the 2016 Naira crisis, the exchange rate depreciated significantly, and inflation soared to double digits, reaching 18.55% in 2017 (World Bank, 2023).
  - Oil price shocks have historically triggered currency depreciation and inflation spikes, as seen in the early 2000s and 2016.
  - Recent data indicate that periods of high forex volatility correlate with inflation rates exceeding 20%, underscoring the link between exchange rate instability and price level increases (CBN, 2023).

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### 5. Conclusion

Foreign exchange volatility significantly influences inflation in Nigeria, primarily through imported inflation and altered consumer behaviour. Persistent fluctuations in the Naira's value pose challenges to price stability and economic growth. To mitigate these effects, a comprehensive approach combining monetary, fiscal, and structural policies is essential. Stabilizing the exchange rate, diversifying the economy, and strengthening institutional frameworks will help Nigeria manage forex volatility and maintain sustainable inflation levels, fostering economic resilience.

The intricate relationship between exchange rate movements and inflation highlights the challenges faced by policymakers in managing economic stability. Higher import costs driven by currency depreciation led to increased prices for consumers, eroding purchasing power and creating economic uncertainty.

To mitigate the adverse effects of foreign exchange volatility on inflation, Nigeria must implement comprehensive strategies, including enhancing domestic production capacity, promoting currency stability, and diversifying the economy away from oil dependence. By addressing these challenges, policymakers can foster a more resilient economy that is less susceptible to the fluctuations of global markets.

Overall, understanding foreign exchange volatility as a critical factor influencing inflation allows for more informed decision-making regarding economic policy, helping to ensure fiscal stability and promoting sustainable economic growth

### Policy Implications

- **Exchange Rate Stabilisation:** Implementing measures to reduce forex volatility through currency interventions and market regulation.
- **Inflation Targeting:** Adopting monetary policies focused on inflation control, including interest rate adjustments and reserve requirements.
- **Diversification:** Reducing dependence on oil exports to mitigate external shocks that trigger currency swings.
- **Market Development:** Improving the forex market depth and transparency to foster stability and investor confidence.
- **Fiscal Discipline:** Ensuring prudent government spending to prevent fiscal deficits that pressure exchange rates.

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### Compliance with ethical standards

#### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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