A Theoretical Exploration of the Effect of Volatile Foreign Exchange Rate on Growth of Nigerian Economy

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Abstract

This paper explore the empirical evidence on the effect foreign exchange currency would have the economy growth of Nigeria. The paper is purely a content analysis using existing studies. Economic being the quantity of economic activities undertaken by economic agent (individually and in aggregate). It is measured the increase in country's gross domestic product (GDP). The recent increase in foreign exchange rate, which led to the depreciation of Naira, renders majority of economic agent jobless. This follows the actions of investors and entrepreneurs to closedown business enterprises. Two theories were discussed, that is the balance of payment theory and the purchasing power parity theory to support the paper. While on model specification the Trilemma (Impossible Trinity) hypothesis was also analysis together with its criticism. In view of this, the government needs to revisit its decision on the appropriate rate of foreign currency to be use. To easy this policy, government should endeavor to accelerate development of local resources to be use within the country and enhance exportation of it in the international market. This will help the country to achieve economic competitiveness and international independence.

Keywords: **Volatility, Exchange rate, Economic growth, Economic agent, Economy**

I. Introduction

Nigeria being one of the major exporter of crude oil depend largely on the oil proceed as a source of its foreign exchange. This make it a mono and singular economy and subject all shocks that affects International Currency Markets (Augustine, 2015). Since the major source of income is oil proceed, there is possibility of volatility in the prices of items. Although, Charity, et al. (2019) opined that, foreign currency exchange provide an opportunity for a country to have stable economy. Since the beginning of the Seventieth century, it became imperative for a country to effectively choose, manage and safeguard it foreign exchange currency for a better and competitive economy growth (Akinwolere, 2021; Mohammed 2016; Ilechukwu & Nwokoye, 2015). This is because international trade can only be a success if there is stable exchange rate that is favourable to a country. The more the country's currency depreciate against the counterpart currency, the low might be the level of economic (Ismaila, 2016). This may significantly create foreign currency risk flow and lower internal trade relative to country's export.

Despite the huge investment by Nigerian government and concern by many entrepreneurs to boost the country's productivity level for sustainable growth and development. The results seems to be not encouraging, given the poor condition of infrastructure, social amenities, education standard and the standard of living the citizens are in with greater social vices. Emeka, Nneka & Nonso (2020) and Ismaila (2016) pointed that the cause of these was the continued depreciation of Naira against the international currency and its instability in the foreign currency market. It also create competitive backwards of the

Nigerian non-oil export in the international commodity market (Benjamin, 2019). Therefore, it became imperative to manage the foreign currency exchange in such a way that it will foster economic growth, prosperity and sustainable Growth Domestic Product (GDP) that will stimulate investment opportunities with reduce risk exposure (Iyeli & Clement, 2017). This will also help in controlling inflation, interest rate and opens up opportunities for domestic investment and access to foreign inputs (Mohammed & Omale, 2020).

However, the high need for foreign currency couple with constant depreciation of Naira in the international currency market occasioned by high import created greater variation of Nigerian currency. The variation created serious domestic concern that results in artificial inflation, money supply crunch and high interest rate (Ewubare & Ushie, 2022; Mohammed & Omale, 2020; Olajide, 2014). The effect more also created implications on the production and employment opportunities. As businesses where left with option than to suspend operation and close down, while able to do economic agents were left jobless. According to Ewubare & Ushie (2022) and Ewa (2011) up to the end 1970 when agriculture contributed to more than 70% of Nigerian export, the Naira maintain stability against the foreign currency.

II. Conceptual Development

Exchange rate

Exchange rate became a topical issue of discussion since the beginning of 1970s, which serves as one of the macroeconomic factor that influences country's economic activities (Mohammed & Omale, 2020; Benjamin, 2019; Iyeli & Clement, 2017). Because it used to ensure stable international trade balances and provide access to cross boarder finances. Exchange refers to the value in which one currency is interchange in relation to the other. Iyeli & Clement (2017) defined exchange rate as the price of one currency in terms of another currency. This can be used to measure the currency's strength, weakness and its competitiveness in the world currency market.

In a bid to stabilize economic activities among economic agent, Nigeria introduces various exchange rate policies in order to effectively and efficiently allocate economic resource for smooth investment decisions. According to Okoroafor & Adeniji (2017), the reason for the exchange rate policy was that none of them was perfect to address the lingering macro-economic objectives. For instance, the agricultural boom witnessed between the periods 1960 to 1981 led to the introduction of Direct Exchange Rate by the government for stabilizing the economy and stimulate productivity and growth. While, Parallel Exchange Rate was introduced from 1981 to early 1986 to tackle the effect of high foreign currency demand associated resulting from lower foreign earnings (Mohammed & Omale, 2020). Furthermore, to balance and stabilizes the economy against dwindling depreciation of the Naira, the government introduces of Structural Adjustment Programme (SAP) in the 1986. This saw the emergence of Different Foreign Exchange Markets, where Second-Tier Foreign Market (SFEM) and Unified Official Market (UOM) emerged (Ewubare & Ushie, 2022; Benjamin, 2019; Iyeli & Clement, 2017).

However, the 1995 foreign currency crunch and the economic crisis left the government with no other option than to liberalize the foreign exchange market. This saw the introduction of the Autonomous Foreign

Exchange Market (AFEM). While Inter-Bank Foreign Exchange Market (IFEM) in 1999 but the Naira still felt down. With the continual dropped in the Nigerian foreign reserves; and to respond to the high demand in foreign currency by importers, the government further deregulated the exchange market and introduces the Dutch Auction system (DAS) in 2002 and Wholesale Dutch Auction System (WDAS) in 2006. The DAS and WDAS stabilizes the Naira against the Dollar in 2005 and 2008 for a short period (Benjamin, 2019). The 2009 financial crisis further worsen the Nigerian foreign reserve due to the country's high dependent oil revenue (Ruth, 2020; Benjamin, 2019; Ismaila, 2016).

Consequent upon this, the aggressive economic environment accessioned from government measures to control the economy forces foreign investors to withdraw their investment. This also affect the supply of foreign exchange couple with the fall of the oil revenue. To control the situation, the government further devalue the Naira to around ₦350 in 2017 (Mohammed & Omale, 2020; Benjamin, 2019). While recently the present government introduces Floating Exchange system, where the exchange rate will be determine based on the market forces of demand and supply. This saw an upward review of the exchange of the Naira against the Dollar to about ₦900 per $1. This also created severe economic hardship to generality of the citizens, where inflation rises to 25.8% in August 2023 and the Naira continue to have lower purchasing power (NBS, 2023). This will further worsen the country's foreign reserve and create wider unemployment problem.

Economic growth

Economic growth is a term used to be interchange with economic development. While in actual sense the two terms differ from so many perspectives and dimension. Economic growth refers to the increase in quantity of country's economic activities over a given period. The growth is being measured using the total production of goods and services produced within the country by all its economic agents (Mladen, 2015). The total production is proxied by Gross Domestic Product (GDP). Developing countries can use economic growth to combatting poverty and improve the quality of life of their citizens and greater social inclusion in terms education, employment and entrepreneurship. All these will result in human capital development and progression.

Andrea & Stefano (2001), suggest the following as the main determinants of economic growth- physical capital accumulation and human capital development. This is because, formal skills and experience allows economic agents to participates economic activities and contribute positively to the GDP. Nevertheless, the economic activities can be possible if enabling environment of physical capital are available, hence, inflationary effect will be on goods and services will be low (Kazeem, 2014, Nicolas & Ananth, 2014).

Empirical review

Scholarly documents depict evidences on the relation between foreign exchange and economic growth of a nation using varied methodology, factors and time. To this end, summary of such evidence where presented to support this paper.

Ukangwa & Ikechi (2022) study on the effect of exchange rate on economic growth of Nigeria revealed that Naira has no significant effect on the economic growth but can influence the rate of inflation. Hence, they encouraging local manufacturing base in order to boost export base of the nation. Yacine, Ephraim, Vincent & Salma (2021) study that examine the effect of exchange rate fluctuations on the performance of small and medium sized enterprises: implications for Brexit using time varying nature found strong negative effect between exchange rate fluctuation and performance of small and medium sized enterprises of the Pound and Dollar equivalent.

Benjamin (2019) who empirically assess the impact of exchange rate volatility on the Nigerian economic growth the findings of the study shows a negative and significant association between inflation and economic growth. He recommend that the government should adopt holistic policies that would ensure stability of the exchange rate and boost local production. Miftahu, I. & Isaac, S. (2023) who empirically assess the impact of exchange rate fluctuation on economic growth in Nigeria, using secondary data from Central Bank Bulletin between the periods 1986 to 2019, observed that there is positive but not significant effect between exchange rate and firms' performance. Nevertheless, interest rate have negative effect on economic growth. They recommend that government should provide conducive business atmosphere through the provision of needed infrastructures and promote export strategy so that will sustain surplus and favourable international balance of trade.

While Jonathan & Ezekiel (2019) study on effects of exchange rate fluctuation on economic growth in Nigeria using autoregressive distributed lag model from 1981-2018, found out mixed statistically significant result between the proxy dependent and independent variables both in short and long terms. As a way forward, they suggest that government should pursue policies that would encourage, promote and development of local raw materials in order to enhance local production and discourage importation to stabilize exchange rate volatility. This will help in adding more infrastructures needed for local production of goods and services.

However, Mohammed & Omale (2020) that investigated the relationship between exchange rate and economic growth in Nigeria for the period 1996-2017 using Autoregressive Distributed Lag. They observed that positive and long-term significant relation exist between depreciation in the Naira value and economic growth. Thus, they recommend for a free-floating depreciation policy in favour of expansionary monetary policy in order to boost economic growth.

While Onuoha (2014) who examine the impact of exchange rate variation and inflation on the economic growth of Nigeria using ordinary least square method on real GDP and inflation rate from 1980–2010. The result reveals that both import and export variables showed a positive but not statistically significant relationship between inflation rates and exchange rates. He therefore, opined that government should embark on macro-economic strategy that will enhance sustainable economic development to combat the effect of inflation to boost production and human capital development.

III. Theoretical framework

Theories provide bedrock upon which to base any critical argument. They help in shaping and directing research (Saunders, Lewis and Thornhill, 2016). Despite lack of a single acceptable exchange rate theory, the following theories were considered instrumental in explaining the relationship between volatile exchange rates on growth of Nigerian's economy (Bala et. al. 2016):

The Balance of Payment Theory

Balance of payment theory is based on the argument that country's currency depends on its ability to produce and sell its products and services in the international scene. Therefore, exchange rate is the function of market forces (Mohammed & Omale, 2020). A country with unfavourable balance of payment will continue to face higher exchange. This become imperative for a country that want to maintain sustainable development to create enabling environment that will translate into more economic activities for its citizens (Ewubare & Ushie, 2022). Therefore, government should endeavor to encourage and accelerate export rather than import so that a favourable balance of trade can be achieve and maintain for international competitive, through the use of local materials (Jonathan & Ezekiel, 2019; Bala et. al. 2016).

The Purchasing Power Parity Theory (PPP)

According to Bala et. al. (2016), the modern PPP theory was credited to Gustav Cassel in 1920. The theory assumes that each currency must have an equilibrium, which can be used to exchange for one another. Thus, any currency with higher purchasing due to its country's productive will tend to be exchange higher than it counterpart (Ukangwa & Ikechi 2022). To this effect, currencies are exchange using their nominal value (Bala et. al. 2016). However, Jhingan (2011) as sited by Mohammed & Omale (2020) suggest the use of absolute purchasing power parity that takes into account all associated cost related to a transaction. Jonathan & Ezekiel (2019) opined that the lower a country's currency, the more expensive imported goods and services would be in the country.

Framework Specification

This paper adopt the Trilemma (impossible trinity) hypothesis domain that defined the functionalities between lower currency volatility and stable monetary policy. The framework requires a country to choose between the monetary independence, exchange rate stability and financial integration exchange policy framework (Ilechukwu & Nwokoye, 2015). Although, the policies are mutually inconsistence, but a country can choose a combination of two policies (Rajeswari, 2015). Roman (2011) opined that the best strategy is for a country to maintain an open exchange regime, where exchange can be on a floating basis to enable them control inflation. Because in a perfect capital flow with fixed exchange system, nominal interest rate of a country should not be set below the international standard, to enable the country maintain its foreign reserves (Ricardo, 2016). Aizenman (2013) further argued that, as a vial out mechanism to the exchange rate dilemma, the disadvantage countries should device a means of hoarding enough and excess foreign currency to enable maintain economic competitiveness and international independence. However, this can be possible by engaging local input and materials when it comes to production and the ability to prioritize export activities than import dependence.

However, despite Aizenman (2013) contribution to Trilemma's theory, he disagree with it on the ground that perfect international market does not exist in reality, which Trilemma theory was based upon. Moreover, Serrano & Summa (2014) also pointed out that looking at the risk of credit rationing, there is no certainty that any additional capital flow can influence a country to lower its exchange interest rate to the level international level. While Lavoie (2001) position on the Trilemma's theory was that, there is no automatic and natural mechanism to adjust the local interest rate by concern authority because adjustment of local interest rate in based on the assumption of non-sterilization of interventions.

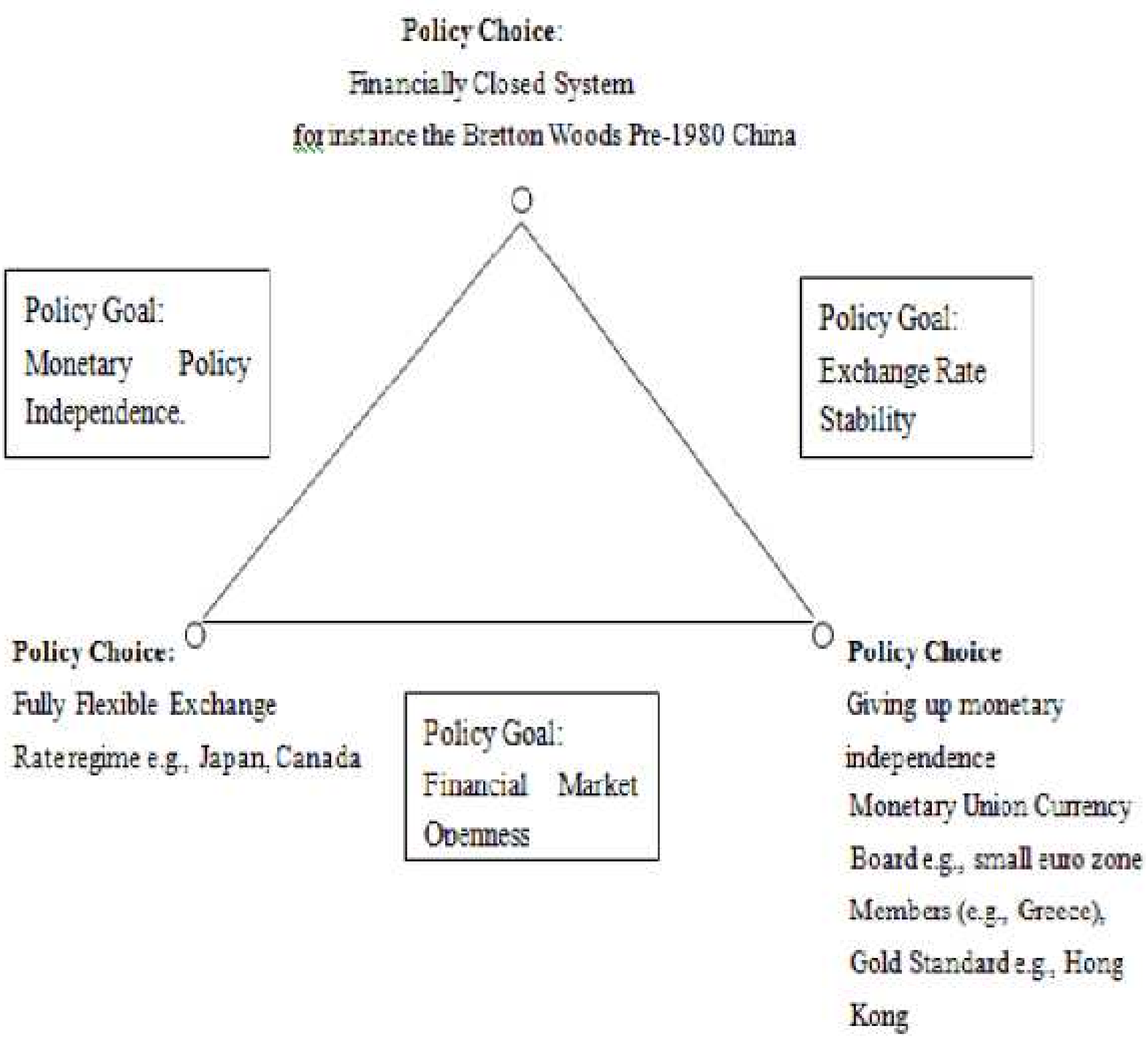

Figure 1: The Trilemma (Impossible Trinity) Hypothesis
Source: Ilechukwu & Nwokoye 2015

IV. Conclusion

The paper give a theoretical exploration of how volatile foreign exchange rate on affect the growth of Nigerian economy by examining empirical studies both within and outside Nigeria. The study revisit the definition of economic growth, which is not the same with economic development. Majority of the study reviewed revealed a positive and significant relationship between their study variables. The paper dwelled on two theories to support existing argument (balance of payment theory and the purchasing power parity). As part of recommendations, government should ensure the promotion of local resources to be use within the country to boost indigenous industries to enhance exportation and reduce importation. This will help Nigeria to achieve competitiveness in the international market and maintain financial freedom, independence, quality of life and sustainable economic growth.

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