Impact of Exchange Rate Fluctuation on the Standard of Living in Nigeria

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ABSTRACT

The study examined the effect of the exchange rate fluctuations on standard of living in Nigeria. The variables of gross domestic product per capita (GDPPC), per capital income and unemployment proxied standard of living while the explanatory variables were exchange rate (EXCR), Inflation (INF) Interest rate (INTR) and money supply secondary data was used covering between the period of 1990-2023. Unit root test were carried out to ascertain the stationary of the variables the result of which Autoregressive Distributed Lag (ARDL) was used to estimate the parameters as they were integrated in the order of 0 and 1. The findings reveal that Exchange rate fluctuation has a significant long and short run relationship with the gross domestic product (GDP) per capita, per capita income and unemployment rate in Nigeria. The implication of this is that living standard in Nigeria is greatly influenced by the alterations in exchange rate. As such the study recommended amongst other things that Government should improve on the productive sector of the economy as the primary sector of the economy that produces the basic commodities used to produce goods and services thereby reducing unemployment and improving standard of living. They should strive to put in place positive economic reforms tailored towards enhancing the economic performance and reducing unfavorable impact of exchange rate fluctuations on the standard of living in Nigeria.

INTRODUCTION

Exchange rate fluctuation is one of the burning issues in finance debate in Nigeria of late. This is so given its importance as a major macroeconomic determinant for countries and which help these countries to achieve its optimum growth and development (Ewbare & Usheng, 2022). A country's exchange rate is the price of a country's money in relation to another country's money. It is a relative price of one currency expressed in terms of another currency (or group of currencies). It is an important economic variable that has direct impact on other macroeconomic variables such as price stability, employment rate, poverty reduction, trade in goods and services and others. Oladipupo and Onataniyouwo (2011) expressed the effect of exchange rate movement on other micro economic variables such as inflation rate, money supply unemployment as a domino effect. This domino effect they explained emphasizes the effect of the exchange rate on the standard of living and the overall wellbeing of the economy of the country.

The exchange rate is a fundamental factor in the attainment of economic growth and long-term economic development objectives in developing countries, both in the short and long term. Though these economies have experienced successful growth over the past years, the desired growth level has not always been achieved. Many developing and developed economies intentionally drive at achieving sustainable growth and development through the adoption of appropriate exchange rate management. Consequently, Exchange rate has been proven to be an important macroeconomic indicator used in determining the level of performance of an economy because the overall changes in exchange rate tends to have multiplier effects on macroeconomic variables (Asaleye, Okodua, Oloni & Ogunjobi, 2017).

As an integral part of macroeconomic policy, exchange rate policy is expected to select the most appropriate

exchange rate regime that minimizes the likelihood of exchange rate imbalances. According to Elbadawi and Kamar (2006), the exchange rate regime refers to the decision taken by the government on the specific behavior of its exchange rate relative to other currencies over a specific time frame. However, making the wrong decision could result in abrupt and drastic changes in the exchange rate and cause actual economic and financial harm. The goal of every economy is to have a stable rate of exchange with its partners in trade. Although Nigeria has engaged in numerous devaluation exercises to encourage export and stable the exchange rate, it is clear that this objective has remained a mirage in that nation. The nation's inability to achieve this goal has consistently reduced household welfare and living standards and, in fact, had a negative impact on the macro economy.

Nigeria practices the floating exchange management system with the intention of improving trade balances and increasing output, especially from the real sector. "However, Regardless of the exchange rate regime a country opts for, there are propensities for the economy to be subject to various imbalanced shocks that could lead to economic imbalances and the need for exchange rate adjustment policy over time" (Abiola et al., 2021; Okoronta and Odoemena, 2016; Nwosu, 2016; Nsofo, Takson & Ugwuegbe, 2017, Iyeli&Utting, 2017). This is because Exchange rate fluctuation has overtime resulted in uncertainties and prevented foreign trade among nations. Exchange rate fluctuations are a major source of uncertainty in trade transactions, which can lead to a variety of issues, including inflation. Additionally, the low naira-to-dollar exchange rate has caused many small and medium-sized enterprises to close down. Consequently, the exchange rate fluctuations need to be addressed in order to provide better macroeconomic policy solutions that can be implemented in the society, thereby improving the quality of life of the population and contributing to the overall prosperity of the economy.

Sachs and Warner (2005) noted that exchange rate instability can lower a household's standard of living by unnecessarily raising living expenses and causing the local currency to lose buying power. The living standard is not a new concept both in finance and economics. It is a measure of the physical aspects of a national or regional economy. It calculates the quantity of goods and services that are produced and available for purchase by a person, family, group or country. It is an indicator of the quality of life of the citizen of a country. It focuses on the value of goods and services produced and consumed within a given time period by persons, or group of persons. The commonly accepted measure of standard of living is GDP per capita. It is a country's gross domestic product divided by its population. GDP is the total output of goods and services produced in a year by all within the country's borders. Real GDP removes the effect of inflation or any price increase and so is a better measure of the standard of living than nominal GDP. Consequently, a country that produces a lot will be able to pay higher wages which will in turn further boost production and reduce the level of unemployment among the populace.

In Nigeria, where most of the heavy equipment and raw materials are imported, the situation can lead to an unfavourable exchange rate which may discourage investment and thus reduce welfare. Mckillop (2004) posited that higher exchange rate leads to higher interest rates and is capable of plunging an economy into recession. In the economies of most developed countries, having an appropriate, stable and a more effective exchange rate has been one of the most important factors for economic growth, whereas regular fluctuations or an inappropriate exchange rate have been a major impediment to economic growth in many African countries, including Nigeria. In a desperate attempt to improve living standards, reduce
poverty, and gain the economic and political strength, stability and prestige, Nigeria authorities have been actively pursuing internal and external balancing goals since the country's independence in October 1960. They achieved this through administrative means by altering the local currency's foreign exchange rate in light of the particular and current economic conditions (Osuka and Osuji, 2008). Consequently, exchange rate management in Nigeria has been quite challenging owing to the myriads of problems both on the part of the regulators and the operators alike. In the light of the above, this study seeks to empirically establish the effect of exchange rate fluctuations on the standard of living in Nigeria and to try and suggest policy

implications of the findings on the economic well-being of the nation.

Foreign Exchange Management in The Period Before the Structural Adjustment Programme (1970 - JUNE 1986)

The objectives of foreign exchange management during this period was to harness foreign exchange resources, prevent dis-equilibrating foreign exchange movements, preserve the nation's foreign exchange reserves and the international value of the domestic currency. During the period, exchange control was the main instrument adopted to manage foreign exchange resources. The control measures applied derived mainly from the income-absorption approach. As the exchange rate was administratively determined, it was not an active instrument for foreign exchange management. The administration of the exchange rate failed to isolate the economy from the vagaries of international trade, international price movements and above all it made it impossible for independent monetary policy initiatives to be effective. The basic framework for foreign exchange management was the Exchange Control Act of 1962 which was reinforced by the Economic Stabilization (Temporary Provisions) Act, 1982._The 1962 Act made provisions for measures to increase foreign exchange· resources, reduce the disbursement of foreign exchange and preserve the-nation's international reserves: Other policies that were adopted were either in pursuance of the objectives of the 1962 Act or meant to reinforce the provisions of the Act. The specific policies that were applied during this period are as follows: trade and exchange controls, export promotion, external reserves diversification, external debt and exchange rate administration.

Foreign Exchange Management Under Sap (JULY 1986 – 1990)

The pitfalls of exchange control led to its abandonment. Consequently, a market based system commenced in July 1986 with the structural Adjustment Programme (SAP). The SAP objectives include the achievement of balance of payments and fiscal viability, the rationalization of public enterprises through privatization and commercialization, the reduction in the level of unemployment and the attainment of sustained economic growth. To achieve the objective of balance of payments and fiscal viability, a market determined exchange rate mechanism was put in place, fiscal and monetary policies were tightened to be consistent with the achievement of balance of payments equilibrium. The key element of the SAP is the free market determination of the naira exchange rate through an auction system. Apart from the shift to market-determined exchange rates and exchange control deregulation, other policy measures adopted under the previous system were continued with modifications where necessary to accord with the policy framework of deregulation. The policies applied during this period were based largely on the income-absorption and monetary approaches. This is because, the policies emphasized increase in domestic output and foreign exchange receipts, curtailment of foreign exchange expenditure, domestic monetary stability and reliance on relative prices in the allocation of scarce foreign exchange resources.

Appraisal Of Policy Measures Under Sap and Prospects for The Future

Policy measures applied under SAP were fashioned deliberately to, eliminate price and output distortions in the economy, reduce foreign exchange leakages and excessive outflow of foreign exchange, eliminate the over-valuation of the naira exchange rate in order to reduce the excessive demand for foreign exchange, increase domestic output and the supply of foreign exchange, stabilize foreign exchange transactions and guarantee external equilibrium without compromising the goal of domestic monetary stability. These policies were anchored on a flexible exchange rate mechanism propelled by market forces. To a large extent some successes have been recorded since SAP policies were put in place. Emphasis appears to have shifted from ad-hoc policy formulation designed to tackle problems as they, emerged to policy consistency based on a forward looking approach. The realization of the "fire extinguisher" approach to economic management was inimical to sound foreign exchange management is a major achievement of the current system. The freedom given to economic agents to determine the level of prices, output and the volume of

foreign exchange transactions without encumbrances is another good point of the market based system of foreign exchange management. In real terms, the success of the new dispensation which has resulted in relatively more relaxed atmosphere for foreign exchange management can be measured by various economic indicators. For instance; foreign exchange receipts which dropped from $12310.2 million in 1985 to $6976.5 million in 1986 rose to $9562.1 million in 1990 (see table 1). Reserves import ratio also improved from 2.9 months in 1985 to 9.5 months in 1990 (see table 3). During the same period, the balance of trade, which dropped from $5.7 billion in 1985 to $2.8 billion in 1987, rose to $9.0 billion in 1990. This was achieved as a result of the consistent improvement in exports which averaged $7.4 billion between 1987 and 1989 before climbing to $14.7 billion in 1990 and the relative stability in the value of imports during the review period after it was ·brought down drastically from the high level of the early 1980 s.

The accommodation of unpaid claims on Nigeria under the short-term capital account in addition to the comfortable external trade position resulted in the consistent improvement in the overall balance of payments. The balance of payments improved from a surplus of $1185.0 million in 1989 to $2124.5 million in 1990. The system of payment under the current dispensation has eliminated payments arrears on current transactions due to the holding of disbursements within the limit of resources and the encouragement of autonomous foreign exchange transactions. The design of the new system which limits transactions in the foreign exchange market to current commitments is a resounding achievement. In real terms remarkable gains have been made. As a result of the impact of relative price adjustments, capacity utilization which dropped to 38.9 per cent in 1986 as a result of the scarcity of foreign exchange increased gradually as a result of increased local sourcing of raw materials and the more effective foreign exchange management mechanism.

In 1989, capacity utilization improved to 42.5 per cent before declining to 37.5 per cent in 1990 due to increased cost of sourcing raw materials both locally and in the international market. However, the performance of non-oil exports· has not been encouraging. Non-oil exports declined from a high of $962.8 million in 1988 to $284.3 million in 1990 (see table 2). However, in terms of its composition, non-oil exports have recorded some achievements. Apart from traditional cash crop exports, the non-oil export list now include such new items like yams, kola nuts, cashew nuts, precious metals, ginger, vanilla, cars and detergents. The fact that cocoa remains the dominant non-oil export is a major problem of this sector. The initial over-valuation of the naira exchange rate has also been corrected. However, since the deep-seated problems of the external sector which necessitated the introduction of the market mechanism have not been corrected, an administered revaluation of the exchange rate is not a feasible option. However, debt servicing remained a major problem. The debt service ratio has remained high, rising from 25.7 per cent in 1988 to 33.1 per cent in 1990. The situation would have been worse were arrears on debt service payments not accumulated during this period. The industrial sector which consumes most of the nation's foreign exchange, over 60 per cent, has compounded the foreign exchange prol5lem by its continued demand for the same share of foreign exchange while contributing insignificant amount to the pool of foreign exchange available to the economy. The gap between its demand and what it earns in foreign exchange is unreasonably large. Most of the non-oil export receipts are due to the export of unprocessed commodities and receipts due to services. The agricultural sector which should · have been developed to provide the necessary linkage with the industrial sector through the provision of required raw materials to stem further the demand for foreign exchange has been less favoured. Allocation to this sector has remained at a level below 3.0 per cent since SAP commenced. Apart from the traditional problems of a flexible exchange rate system such as inflation and exchange rate instability, the inadequacy of foreign exchange remained a critical factor for the success of the new approach to foreign exchange management. Over-dependence on crude oil as the principal source of foreign exchange earnings is a basic constraint on the nation's ability to expand the sources of its foreign exchange.

The adverse effects of·the above mentioned constraints on the future of the current foreign exchange

mechanism are enormous. For instance, the continuous depreciation of the naira exchange rate has contributed to the rise in the cost of production in the manufacturing sector, leading to the· overall rise in prices. In addition, the inadequate supply of foreign exchange to the official segment of the foreign exchange market due to low receipts has led to a situation where there exists a spill-over of demand from the official to the parallel market. This has resulted in the substantial divergence between the rates in the two markets. As a result of the persistent excess demand for foreign exchange caused by foreign· exchange shortage and excess liquidity in the domestic economy and the activities of speculators and arbitrageurs, the exchange rate will continue to depreciate if left entirely to market forces. This is only a natural consequence of the inter-play of market forces. The prospects for improving the value of the domestic currency and ensuring stability.in the foreign exchange market will continue to elude the authorities under the current system if the-basic problems are not tackled.

However, if adequate attention is devoted to improving the supply of foreign exchange through policies geared at stimulating output of both traded and non-traded goods which may help to cut down on imports and excess liquidity in the economy is sufficiently mopped-up, foreign exchange would be more adequate to service the economy. It will be possible to achieve temporary stability in the foreign exchange market with the mopping-up of excess liquidity. However, since improvement in the supply of foreign exchange will take a long time to come through, effective realisation of the objective to reduce pressure on foreign exchange resources cannot be assured under the current situation. The prospects for a radical improvement in foreign exchange resources are therefore not very bright. Improvement will be gradual and would depend on the effectiveness of supply side policies. However when the petrochemical, liquefied natural gas and Oso conderu.ate schemes-start generating foreign exchange, the pressure would be reduced considerably.

Recommendations For Ensuring Sustained Reduction Of Pressure On Foreign Exchange Resources

Measures to reduce pressure on foreign exchange resources are articulated around supply, demand and exchange rate measures. These are examined below.

A. Supply Side Measures: To increase the supply of foreign exchange to the economy, current measures to stimulate non-oil exports should be vigorously pursued. In particular, the diversification of the non-oil export base should ·be intensified in order to reduce reliance on the oil sector and raise the level of non-oil receipts. Exporters should be allowed to exchange their foreign exchange earnings at any source of their choice. Export ban as a measure to stimulate local processing of agricultural commodities should not be a deliberate policy stance. The -processing of traditional commodity exports can better be encouraged through generous incentives.

Government agencies dealing with the promotion of Nigeria's exports should be more aggressive in sourcing favourable markets for our exports. In addition, the packaging and quality of Nigeria's exports should be enhanced to make them internationally competitive. In order to generate additional exports and ensure an overall conservation of foreign exchange resources, the level of domestic output should be raised. The increased production of both tradable and non-tradable commodities would reduce pressure on foreign exchange resources. The agricultural and industrial sectors of the economy need special attention in this regard. This is because the development of these sectors is a necessary condition for promoting economic growth. With increased agricultural production, primary commodity exports would increase and surpluses from this sector could be traded as raw materials for the industrial sector which would then cut down on its demand for imports. The implied reduced cost of production from local sourcing of raw materials may place the industrial sector in a competitive position in the arena of international trade.

B. Demand Side Measures

The demand management policies in place, especially the one dealing with issuance of stabilization

securities, need to be re-examined. The allocation of stabilization securities to banks based on the extent of their excess liquidity may not result in a permanent reduction in the demand for foreign exchange, unless the exercise is carried out routinely and wider a comprehensive framework that does not give room for liquidity adjustments. Experience has shown that when excess liquidity is withdrawn from the banking system, the exchange rate appreciates during the period and after a short time the exchange rate -starts to depreciate again. This is so because banks that are hard pressed for cash are able to get relief from those that are not experiencing liquidity problems through inter-bank dealings. In the light of the above, the issuance of stabilization securities should be done more routinely to reduce the ability of the banks to adjust their liquidity positions.

As a lasting measure, the issuance of stabilization securities should be considered within the wider framework of open market operations~-'Overall, monetary policy stance should continue to be tight. However, if credit ceilings are imposed, interest rates should be freed but liquidity ratio and cash reserve requirements could be raised. On the other hand, if credit ceilings are not imposed, interest rates could be regulated and accompanied with restrictive liquidity and cash reserve requirements: As a complementary measure, expansionary fiscal policy should be discouraged. This is because expansionary fiscal policy would lead to increased demand for foreign exchange through its multiplier effect on money supply which increases effective demand for foreign exchange.

The imposition of high tariffs on non-essential imports should be considered so as to further reduce the demand for foreign exchange. In addition, debt service payments should be made less burdensome by negotiating a-comprehensive multi-year rescheduling Program for Nigeria's outstanding debts and pushing for debt reduction concessions like the ones already panted to Poland and Egypt by the Paris Club of Creditors. The policy of economic diplomacy being pursued by the government would assist in this direction. To permanently reduce the problem of foreign exchange scarcity, local sourcing of raw materials should be encouraged and the domestic capital goods industry should be developed so as to reduce the need for imports.

This is informed by the data for foreign exchange allocation which indicated that disbursement to the industrial sector took more than 60 per cent of total foreign exchange put up for sale by the Central Bank since September 1986. The need to reduce foreign exchange allocation to the industrial sector in the long term is further reinforced by the fact that the industrial sector continues to demand most of the foreign exchange put up for sale by the Central Bank while its contribution to the pool of foreign exchange available to the economy is negligible.

C. Exchange Rate Measures

A fixed exchange rate system encourages inefficiency and makes movement towards short-run equilibrium impossible. On the other hand, a freely floating exchange rate system is usually unstable, inflationary and impairs corporate decision making when not subjected to some form of regulation. The two extremes may not be ideal for any economy. The exchange rate is likely to be more ideal somewhere between the two extremes.

To avoid the problems with the two systems, the exchange rate should be allowed to float within a band. There should be a Lower and an upper band. The divergence between the bands should not exceed 5 per cent. The band of 5 per cent was arrived at from the observed movement in the naira exchange .rate in the official market in 1990 and during the first half of 1991. Between April and May 1990, the exchange rate depreciated by approximately 5 per cent. In November and December, there was a depreciation of 4.4 per cent. However, during the first half of 1991, the naira exchanges rate fluctuated violently between + 6.6 and -7.9 per cent. If stability is the short term objective of exchange rate policy, the scenario shown by the first half data for 1991 cannot be relied upon. As a result, the 1990 data which were relatively less volatile were

relied upon. The prescribed band should be operated only when the exchange rate has approached the theoretic equilibrium which ·could be determined through the purchasing· power parity {PPP) in conjunction with movement in other economic variables. Such economic variables like the balance of payments, external reserves, money supply and domestic production are relevant in this case.

The need to move the exchange rate towards and equilibrium level before fixing a band is informed by the desire not to leave the naira exchange rate at a permanently undervalued and highly depreciated level. The movement towards a realistic exchange rate could be aided by restrictive monetary and fiscal policies. The exchange rate so determined through rational approaches should be taken as the central rate around which the 5 per cent band would be applied with a fluctuation range of V.5 per cent. The range of the band should not be too narrow so as not to deviate too much from the freedom the market mechanism is supposed to entrench in the new system. In addition, if the band is too narrow, there would be a tendency towards a fixed exchange rate regime. The main attractions of determine the exchange rate within prescribed bands would be the reduction in wide exchange rate depreciations, the curtailment of the inflationary effect of persistent exchange rate depreciations and the elimination of speculative foreign exchange dealings.

Since the private sector which demands most of the foreign exchange supplied by the Central Bank contributes little to the pool of foreign exchange available to the economy and since the Central Bank is the sole supplier of foreign exchange to the foreign exchange market, it should not shy away from using its monopoly power. In this regard, the .Central Bank can determine the price it wants to sell its foreign ·exchange and the banks would be allowed to determine what they want to pay subject to the 5 per cent band.

To further liberalize the foreign exchange market, the Bureau de Change should be allowed to finance imports from their funds that are usually sourced autonomously.

REVIEW OF RELATED LITERATURE

Concept of Standard of Living

Standard of living refers to the level of wealth, comfort, material goods, and necessities available to a certain socioeconomic class or geographical area. It does not actually connote the subjective concept of life quality, which can quantify happiness. Various measures, including wealth levels, comfort, goods, and necessities that are accessible to people of different socioeconomic groups in a given location, are frequently used to assess standard of living. There are things that are simple to quantify, such as income, employment prospects, the cost of products and services, and poverty rates, are used to gauge standard of living. The list also includes elements like life expectancy, the rate of inflation, or the number of paid vacation days that people get annually. Class disparity, the poverty rate, the affordability and quality of housing, the gross domestic product, inexpensive access to quality healthcare and/or education, and enough infrastructures are additional criteria that are frequently linked to standard of life. Also Stability in terms of the economy, politics, and the protection of people's lives and property all measure the living standard. The core material components of standard of living, such as income, gross domestic product (GDP), life expectancy, and economic opportunity, are the focus. In the words of Anyawuocha, (2000) the standard of living is defined as "the degree of welfare attained by people in a country at a specific time." This level of welfare is measured in terms of the individual's income level, the amount and quality of food and water a person consumes, as well as their access to affordable and high-quality housing, quality education, a healthy environment, employment opportunities, life expectancy, and the price of goods and services, is just a few examples.

Theoretical Review

Exchange rate as earlier defined Is the rate between the currency of one country and the currency of another.

However, having a reliable and practical exchange rate that is in line with other macroeconomic fundamentals is a problem. This is as a result of currency rate instability, which can really have negative effects on speculation, costs, and global exchange options. A realistic exchange rate is one that accurately reflects the quantity of inbound and outbound international trade, the availability of goods, and also ensures a balance in a crucial position of payments that is consistent with the price and value levels of trading partners. Although the output effect of exchange rate changes has long been acknowledged in the literature, the direction of the effects is still up for debate. There have been numerous attempts to theoretically explain how exchange rates are set. The Purchasing Power Parity (PPP) theory of exchange rate determination is one of the most significant, and it will also serve as the study's main driving force.

Purchasing Power Parity Theory

One of the earliest and arguably most popular theories that describes exchange rate theory is the Purchasing Power Parity (PPP). This hypothesis can be traced back to Swedish economist Gustav Cassel's work from 1918, who suggested that the relative purchasing power of two countries' currencies influences the exchange rate between them. The equilibrium rate of exchange, according to this idea, is established when the purchase power of two irredeemable paper currencies is equal. This indicates that the exchange rate of two non-convertible paper currencies is influenced by the internal price levels of two nations. This implies that if certain goods cost $1 in the Unites States and a similar amount of goods cost N80 in Nigeria, then it is clear that the purchasing power of $1 in United States is equal to the purchasing power of N80 in Nigeria. Thus the rate of exchange according to purchasing power parity theory will be $1 = N80. This concept of PPP is often termed absolute PPP. Relative PPP is when the rate of depreciation of one currency in relation to another matches the difference in the rate of inflation of all prices between the two countries, then it is said that holds. By implication, the nominal exchange rate, which is the cost of one currency relative to another, becomes the real exchange rate when the price level difference is taken into account.

The Balance of Payment Theory

The balance of payment theory stipulates that under free exchange rates, the exchange rate of the currency of a country depends upon its balance of payment. Balance of payment model is anchored on the market determination of exchange rate otherwise known as the free-floating system. The framework of this model assumes that the various balance of payment positions of the countries are a function of the convertible and exchangeable values of the currencies of trade countries. This suggests that, in the event of a favorable balance of payments, this position would result in an appreciation in the currency rate, and vice versa. Consequently, the exchange rate is determined by supply and demand.

The Optimal Currency Area Theory

Optimal Currency Area is also another earliest and leading theoretical foundation for the choice of exchange rate regimes. The optimal currency area (OCA) theory was developed by Mundell (1961) and McKinnon (1963). Trade and the stability of the business cycle are the main topics of this 37 literature. It is predicated on ideas such as shock symmetry, openness, and labor market mobility. The hypothesis states that a fixed exchange rate regime can boost trade and production growth by decreasing exchange rate uncertainty and, consequently, the cost of hedging. It also claims that a fixed exchange rate regime can boost investment by reducing the currency premium over interest rates. On the other hand, by preventing, postponing, or slowing the essential relative price adjustment process, it can also lower trade and output growth. In a similar spirit, Hossain (2002) concurred that the exchange rate influences the number of imports and exports, the position of the country's balance of payments, and also serves to connect the price systems of two distinct countries by enabling international trade.

Empirical Review

Exchange rate fluctuation and the standard of Living have no doubt been a front burner issue in the economics and finance debate and more specifically in Nigeria in recent times. There have been investigations by various researchers and scholars alike both from the developed and emerging economic perspectives. The question of how exchange rate variations affect the standard of life in Nigeria has generated discussion among policymakers over the years, and studies have attempted to demonstrate how much an exchange rate contributes to either a high or low standard of living. The impact of currency rate fluctuations on the performance of Nigeria's manufacturing sector was assessed by Oyedepo, Rasaki, and Onasokhare in 2023. In their research, they looked at the impact that exchange rate fluctuations had from 1990 to 2020 on Nigeria's manufacturing sector's performance. Data for annual time series were taken from the Statistical Bulletin of the Central Bank of Nigeria and World Development Indicators. The long and short run forms of the autoregressive distributed lag model (ARDL), which was used for the data analysis, offered the most accurate estimations of the co-integrating regression. Manufacturing capacity utilization (MACU), exports (EXP), raw material imports (IMP), exchange rate fluctuations (EXRF, EXCR), interest rate (INT), and inflation rate (INFR) were all given as explanatory variables for the model. The analysis's findings showed that the model fit the data well, with an adjusted R^2 value of 96%. The ARDL model demonstrated a long-term association between the variables and further demonstrates that (EXRF) and (IMP) significantly reduced Nigerian manufacturing output. On the other hand, MGDP and MACU had a strong positive association. EXRF, IMP, INT, and INFR all demonstrated strong negative relationships with MGDP in the short term. The study comes to the conclusion that the MGDP in Nigeria is significantly impacted by exchange rate fluctuations. According to the study's recommendations, the government should implement measures to help stabilize the currency rate system in Nigeria. Domestically available raw materials should be subject to import limitations, and facilities that can boost the manufacturing sector's capacity utilization should be made available. This will significantly increase Nigeria's manufacturing sector production and promote global competitiveness.

Ani and Udeh (2021) looked at how the exchange rate affected Nigeria's economic expansion. The effects of exchange rates on the gross domestic product (GDP), gross national product (GNP), and unemployment were carefully examined. The data used were secondary data obtained from the Central Bank of Nigeria Statistical Bulletin, which was compiled from 2009 to 2018 over a ten-year period. Ex-post facto research methodology was used. While some diagnostic tests were carried out to confirm the integrity of the data and their relatedness in both short and long term basis, Ordinary Least Square technique was employed in the evaluation of hypotheses. It was found that while exchange rate had significant effect on GDP and GNP, it was non-significant on unemployment. This implies that micro economic indices of GDP and GNP could be used to consciously adjust standard of living of the citizens. The study recommends, among other things, the adoption of policies that will affect GDP in a way that will improve people's welfare. It concludes that exchange rates should be managed with the utmost care by experts in the field to avoid unnecessary fluctuations that may inflict unbearable economic consequences on the Nigerian people.

Iheanachor and Ozegbe (2021) assessed the consequences of exchange rate fluctuations on Nigeria's economic performance. The goal of the study was to determine why the Nigerian monetary authorities' coordinated attempts to pursue internal and external balances resulted in little to no progress over the study period. Using annual time series data from 1986 to 2019, the study used the autoregressive distribution lag (ARDL) technique to examine the short- and long-term effects of exchange rate variations on economic growth. The empirical finding showed that the long-term effects of the currency rate, net foreign direct investments, and inflation rate on Nigeria's economic growth were significantly negative. The overall finding of this study showed that excessive exchange rate swings are bad for Nigeria's economic expansion. This paper advises Nigerian agro-investment and export diversification in agriculture on the basis of the

empirical findings. The state should influence the foreign exchange system by trustworthy changes to lessen the negative consequences of an unstable foreign exchange system on the Nigerian economy.

Toriola, Folami, Afolabi and Ajayi (2020) examined the effect of exchange rate fluctuations on human welfare indicators, and assessed the direction of causality between exchange rate and human welfare indicators in Nigeria. The study used an ex post facto research design, and data from the World Bank Development Index (WDI) and the Statistical Bulletin of the Central Bank of Nigeria (CBN) between 1981 and 2017 were used. The actual estimation made use of the Ordinary Least Squares (OLS) and Ganger causality test. The findings indicated that whereas inflation and currency rate variations have a negligible impact on human welfare in Nigeria, interest rates have a large beneficial impact. The Granger causality test found that human welfare has a unidirectional causal relationship with changes in the currency rate in Nigeria. According to the report, the government should forbid the importation of any goods that can be produced domestically and that the nation has the resources to do so.

Nigeria's economy relies heavily on imported goods in order to survive. The craze for imported goods has over time exerted pressure on the exchange rate. This has in turn brought about a decline in the Nigerian productive sector causing spiral unemployment leading to a drop in the standard of living of most Nigerians. To explain this, Nwobia, Ogbonnaya-Udo and Okoye (2020) conducted a study from 2000 to 2019 on the impact of currency rate fluctuations on Nigeria's external trade. The study made use of secondary data sourced from central bank of Nigeria statistical bulletin of various issues from 2000 being the year of monetary authority regime of flexible exchange rate to 2019. The data were analyzed using Ordinary Least Square (OLS) regression analysis and correlation. The result shows that the three variables ;exchange rate, balance of payment, and inflation rate have significant effect on the Gross Domestic Product (GDP) and external trade of Nigeria; Exchange rate has a negative effect on the GDP because as it increases, the external trade is negatively affected. They recommended that the government support export promotion initiatives in order to maintain a positive balance of payments on trade and establish a favorable exchange rate that would increase the GDP of the country. The standard of living, according to Ogbebor, Oguntodu, and Oyinloye (2020), is crucial to every economy. It provides a comprehensive picture of how the economy is doing on a worldwide level. A person's marginal propensity to spend (MPC) increases if they are unable to purchase the basic essentials due to having limited purchasing power, which makes it harder for them to live comfortably and lowers their standard of living. Their research looked at how inflation affected Nigeria's level of living in order to support this. Time series data on inflation rate and living standard proxied by the Human Development Index (HDI) between 1998 and 2017 was used for this research. Augmented Dickey Fuller and Phillip-Perron unit root tests was used as a test for stationarity of the data and for inferential studies, the Auto Regressive Distributed Lagged (ARDL) model was chosen. Among the descriptive statistics used are skewness, kurtosis, Breuch-Pagan test, Godfrey serial correlation LM test, Jarque-Bera test, and Breuch-Pagan test for heteroscedasticity and the Durbin-Watson test. Results indicated that inflation and standard of living have a long-term link. With a coefficient of -0.034 and a P-value of 0.017, inflation showed a negative and significant impact, suggesting that each unit increase in inflation results in a 0.034 unit drop in standard of living over the study period. Based on findings it was recommended that a proper blend of monetary and fiscal measures should be employed to improve the living conditions of Nigerians. House, Proebsting and Tesar (2019) exploited the effects of exchange rate changes on economic activity at the business cycle frequency and disparities in trade exposure across U.S. states were identified. They observed that Increase in exports, a drop in unemployment, and an increase in hours worked are all linked to depreciation in the state-specific trade-weighted real exchange rate. The impact is most noticeable during lean economic times. A multi-regional model was created with inter-state trade and labor movements, and it was calibrated to match the export orientation at the state level as well as the volume of trade and labor migration between states. The model accurately captures the connection between unemployment and currency rates. In the first year, shocks are mostly transmitted across states by the high level of interstate trade, but subsequent years see interstate migration shape cross-sectional patterns.

The model predicts that a 25% Chinese import tariff on American goods would have an impact across the country, including in states with just marginal direct ties to China, and would result in a short-term increase in unemployment rates of 0.2 to 0.7 percentage points. Akpanke (2019), who recognized that the relationship between the exchange rate and economic growth has been called into question for a number of reasons, used annual time series data from 1986 to 2016 to analyze the effects of currency exchange rate fluctuations on Nigerian economic growth. The secondary data were taken from the Nigerian Central Bank's statistical bulletin and were used. Prior to 1986, the Nigerian economy operated in a setting with fixed exchange rates; however, since 1986, a flexible system of currency rates has been in place. The Ordinary Least Squares (OLS) method is used to analyze the data. The outcome demonstrates a negative correlation between the exchange rate and GDP growth. EXC will drop by 0.324593 as a result of a change in GDP growth rates. The null hypothesis that the exchange rate has little to no important impact on Nigeria's economy was accepted since the probability value of GDP growth does not, however, approach statistical significance at 5%. According to the study's findings, strict foreign exchange control regulations should be put into place to help with the precise calculation of the exchange rate's value. In Nigeria, the impact of exchange rates on industrial output was quantified by Ogunmuyiwa and Adelowokan (2018).

They noted that the importance of exchange rates in determining industrial output, a topic that has long been studied by academics from both wealthy and developing nations. However, they added more data to their analysis and made a contribution to the body of literature due to its ongoing relevance and significance in determining the industrial sector's production. On time series data from 1986 to 2016, several econometric techniques were used, including the Augmented Dickey Fuller unit root test, the Box Jenkins O.L.S methodology, and the Chow break point test. Although there is no long-term correlation between exchange rate and industrial output, the empirical results show that exchange rate has a positive and considerable impact on industrial output in Nigeria. Additionally, the Chow break point test confirms that a structural change in the pattern and direction of Nigeria's industrial output and exchange rate genuinely took place from the start of the 4th republic in 1999. Although the exchange rate influences industrial output in Nigeria, this study advises that it be carefully maintained to avoid an inflationary spiral in the costs of goods and services due to a contagious impact.

Edeme and Okafor (2017) also investigated the impact of exchange rate fluctuations on household welfare, They sought to provide empirical evidence on the causal relationship between exchange rate fluctuation and household welfare in Nigeria. Household welfare was a dollar's value in naira was defined as the exchange rate, which was proxied by household consumption spending per capita. On annual time series data from 1980 to 2014, the study used the linear regression approach, Ordinary Least Squares (OLS) estimation technique, and Granger causality test. The analysis's findings showed that changes in exchange have a favorable and significant impact on household welfare. The Granger causality test's conclusion also showed that exchange rates are Granger-causes of household welfare. Even if exchange rate fluctuations have a favorable effect, household welfare is reduced because fewer items may be purchased with more naira. Therefore, there is a negative overall effect of currency rate changes on household wellbeing in Nigeria. It was suggested that the government develop an exchange rate management strategy that will strengthen the naira against the dollar given the exchange rate's favorable impact on household consumption expenditure and its attendant consequence of depleting savings in order to smooth consumption. In the same vein, Oniore, Gyang, and Nnadi (2016) conducted an empirical investigation of the relationship between Nigerian private domestic investment and exchange rate volatility. The econometric technique and descriptive statistics were used. Thus, to assess the numerous trends in the data, simple averages of descriptive statistics and the Error Correction Model (ECM) technique within the Ordinary Least Square estimation were used. The exchange rate variable's exceptionally high standard deviation serves as an illustration of the vast differences in the variables, which are demonstrated by the descriptive statistics of the variables included in the model. This shows that the exchange rate was highly volatile over the time period under investigation. The results indicate that private domestic investment activities in Nigeria are not sparked by currency and

interest rate depreciation. Infrastructure, the size of the government, and inflation rate, on the other hand, had a favorable impact on private domestic investment in Nigeria. It is thus recommended that monetary authorities should adopt appropriate policy in appreciating the value of the naira as devaluation has been a mistake since 1986, reduce borrowing and lending charges to boost the performance of private domestic investment through stable macroeconomic environment.

To offer recommendations to Nigerian policymakers on how to achieve the appropriate exchange rate that would accelerate industrialization and industrial production using annual time series data from 1980 to 2013, Ilechukwu and Nwokoye (2015) investigated the effect of exchange rate stability on industry output in Nigeria. Ordinary least squares technique was used. The study outcome revealed that the domestic capital, foreign direct investment, population growth rate, Real exchange rate, interest rate, and GDP growth were important factors of industrial output. The adjustments in inflation and the external balance had little to no impact on industrial output. Based on these findings, the researchers urged the government to make purposeful efforts to adjust the various macroeconomic factors in order to create an atmosphere that encourages industrial output and ultimate economic growth.

The asset and goods markets connect the economy of every nation in the world, either directly or indirectly. Trade and foreign exchange make this connection possible. The price of foreign currencies in relation to a local currency (also known as foreign exchange) is crucial to understanding the global growth trajectory. Significant exchange rate misalignments can have negative effects on output and cause severe economic hardship. These raise the question of the appropriate exchange rate required to accomplish a collection of varied goals. Economic expansion, inflation control, and preservation of international competitiveness are the major goals.

METHODOLOGY

Sources of Data

Data used in this was predominantly secondary source of data. These data are time series data collected using the desk survey approach from, journals articles, internet, the CBN statistics bulletin, and other relevant statistical publications. The proxy variables used to measure standard of living as the dependent variables were (GDP per capita (GDPPC), Per capita income (PCI), and Unemployment rate (UNEMP)) while the independent variable was exchange rate alongside other likely variables (inflation (INF), Interest rate (INTR), and money supply (MS)) that has influence on the connection between the exchange rate and standard of living. The research period was from 1990 to 2021.

Model Specification

The relationship subsisting between the independent and dependent variables was represented functionally as

GDPPC= f (EXCR, INF, INTR, MS)...(3.1)

PCI = f (EXCR, INF, INTR, MS)… ....(3.2)

UNEMP= f (EXCR INF, INTR, MS)… ....(3.3)

Transforming the above functional representation to an econometric form with the intention of analysis is stated thus;

$$LOGGDPPC = \beta_0 + \beta_1 LogEXCR_t + \beta_2 LogINF_t + \beta_3 LogINTR_t + \beta_4 LogMS_t + e_t$$

$$LOGPCI = \beta_0 + \beta_1 LogEXCR_t + \beta_2 LogINF_t + \beta_3 LogINTR_t + \beta_4 LogMS_t + e_t$$

$$LOGUNEMP = \beta_0 + \beta_1 LogEXCR_t + \beta_2 LogINF_t + \beta_3 LogINTR_t + \beta_4 LMS_t + e_t$$

Where:

GDPPC = Gross domestic product per capita proxy for Standard of Living

PCI = Per capita income (standard of living index)

UNEMP = Unemployment rate (measure of living standards)

EXCR = Exchange rate

INF = Rate of inflation

INTR = Interest rate

MS = Money Supply

B_0 = Intercept

$\beta_1 - \beta_4$ = Regression Parameters/Coefficient of the independent variables

e_t = Stochastic error

A-priori Expectation

Table 3. 1: A list of the a priori Expectations

Variables	Definition and Measurement	Expected Signs
Exchange rate	Natural log of exchange rate value	–
Inflation rate	Natural log of Inflation rate value in %	–
Interest rate	Natural log of Interest rate value as obtained from CBN Bulletin	+/-
Money Supply	Natural log of the sum of all currency and other liquid assets	+/-

Source: Authors Compilation 2023

Method of Data Analysis

For estimation, time series data for 1990 to 2021 was employed. In analyzing the data gathered the outcome of the pre estimation test of unit root was used to establish the specific technique that was used in order to avoid having a spurious regression. Augmented Dickey-Fuller (ADF) test of unit root for stationarity was employed to ascertain the variables' integration order of the variables. The result showed a mixed order of 1(0) and 1(1) necessitating the use of Auto regresive Distribution Lag (ARDL) analysis technique and the Error Correction Model (ECM) to determine the variables' short- and long-term relationships. Descriptive statistics were also carried out to ascertain the level of normality of the data set under review. The research made use of econometric approach in estimating the connection between changes in currency rates and living standards in Nigeria. Ordinary least Square (OLS) technique will be employed in obtaining the numerical estimates of the co-efficient in different equations in the three models.

DATA PRESENTATION AND RESULTS ANALYSIS

Data Presentation

This section presents the data employed in the study sourced from CBN statistical bulletins, National Bureau of Statistics reports and World Bank databases both in the natural and logged form. The logged form is as displayed in Table 4.1. See natural form of variables in Appendix

Data Analysis

Data analysis was done with the aid of E-Views 10 and presented in the following sections:

Descriptive statistics

Descriptive statistics for both factors that are dependent and independent variables are presented in table 4.2

Table 4. 2: Descriptive Statistics of Log Variables

	LOGEXCR	LOGGDPPC	LOGINF	LOGINTR	LOGMS	LOGPCI	LOGUNEMP
Mean	2.074363	5.440629	1.149644	1.269101	3.471335	2.441375	1.043654
Median	2.110602	5.447847	1.104453	1.251637	3.484045	2.447877	1.143372
Maximum	6.286185	5.578928	1.862370	1.499687	4.641672	2.578639	1.522444
Minimum	0.905137	5.305901	0.730782	1.060698	1.760045	2.305351	0.278754
Std. Dev.	0.905931	0.102641	0.278736	0.084821	0.892671	0.103251	0.375649
Skewness	3.060579	-0.050346	1.128679	0.340797	-0.314549	-0.054007	-0.658068
Kurtosis	15.83816	1.338080	3.716633	3.958507	1.784686	1.336737	1.987621
Jarque-Bera	269.7157	3.696158	7.478972	1.844409	2.497001	3.704148	3.676163
Probability	0.000000	0.157540	0.023766	0.397641	0.286935	0.156911	0.159122
Observations	32	32	32	32	32	32	32

Source: Authors Computation in Table 2 Appendix 1

Table 4.2 showed the result of the descriptive statistics or summary statistics of both the dependent variable; Gross domestic product per capita (LOGGDPPC), Per Capita Income (LOGPCI), Unemployment (LOGUNEM) and the Independent variables; Exchange Rate (LOGEXCR), Inflation (LOGINF), Interest rate (LOGINTR). These summary statistics were used to quantify and describe the basic characteristics of the data set and highlight potential relationships between variables. The basic characteristics as shown by the result are the measures of central tendency, the measures of dispersion and the measures of normality of the data set.

As observed from the result, the average values of LOGEXCR, LOGGDPPC, LOGINF, LOGINTR, LOGMS, LOGPCI and LOGUNEMP were 2.07436, 5.440629, 1.149644, 1.269101, 3.471335, 2.441375, and 1.043654 respectively. The measure of dispersion such as minimum value, maximum value and standard deviation considered how widely spread the data set was from their mean values. The values for each variable and their measures are as displayed in the table 4.2. Another variable of importance are those that measures whether the data set is normally distributed or not. The measures of normality as measured in this study were that of skewness and kurtosis. Values of kurtosis which are between -2 and +2 are

considered to be acceptable for asymmetry and prove normal distribution (George &Mallery, 2010). On the other hand data is considered to be normal when skewness is between -7 and +7(Bryne (2010), and Hair et al (2010). All but the dataset of exchange rate satisfied this rule of thumb which showed the kurtosis and skewness of 3.060576 and 15.83816 respectively.

The Jarque-Bera (JB) statistic test measures the difference of the skewness and the kurtosis of the series with those from the normal distribution with a null hypothesis stating that the series in not normally distributed. Given the result in table 4.2 the JB values are 269.7151, 1.844409, 7.478972, 2.497001, 3.676163, 3.704148 3.696158 for EXCR, INTR, INF, MS, UNEMP, PCI and GDPPC respectively. All the variables with the exception of EXCR and INF had the probability of their JB statistics non- significant, that is they had a p-value greater than 0.05 implying the null hypothesis being rejected and sustenance for which the null hypothesis of EXCR and INF.

Stationarity/Unit Root Test

A unit root test was carried out on the data set in order to avoid running a spurious regression and to also ascertain the degree of stationarity of the variables under study. The Augmented Dickey –Fuller (ADF) unit root test was employed to do this. The ADF test the absence of a unit root in a time series is the null hypothesis data sample (non- stationary). Where the ADF statistics value larger than one is the critical value of the selected level of significance, then the null-hypothesis of non stationarity is not sustained. The summary of the unit root test for ADF is as seen in table 4.3.

Table 4. 3: Summary Unit Root Test for all Variablez

Variable	ADF statistic	P-value	Difference	Order	Remark
EXCR	5.694844	0.0003	LEVEL	1(0)	Stationary
GDPPC	2.973667	0.0471	1st Difference	1(1)	Stationary
INF	4.469800	0.0067	1st Difference	1(1)	Stationary
INTR	6.373485	0.0001	1st Difference	1(1)	Stationary
MS	3.574095	0.0470	1st Difference	1(1)	Stationary
PCI	2.978281	0.0498	1st Difference	1(1)	Stationary
UNEMP	5.602003	0.0004	1st Difference	1(1)	Stationary

Source: Authors Output from tables 2-8 in Appendix 1

The result displayed in table 4.3 is the first test required to know the individual stationarity of the variables employed in the study. Unit root testing using the Augmented Dickey-Fuller (ADF) can be interpreted either with the t-statistic or the p-value. A variable is stationary if the ADF t-statistic in absolute term is more than the ADF 5% critical value or the p-value is less than or equal to 0.05. The result output in the table 4.3 revealed that every variable (GDPPC, INF, INTR, MS, PCI, and UNEMP) with exception to (EXCR) are stationary at 1st difference and the EXCR stationary at level. Gujarati and Porter (2007) assert that a non-stationary time series variable can be made stationary by differencing.

ARDL Result for Model 1

Table 4. 4: ARDL Result of Model 1 with LOGGDPPC as Dependent Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGEXCR	0.003608	0.003095	1.165885	0.2736

LOGINF	-0.029041	0.018966	-1.531227	0.1601
LOGINTR	0.147636	0.073347	2.012839	0.0750
LOGMS	-0.107446	0.068871	-1.560092	0.1532
C	2.618143	0.682917	3.833764	0.0040
R-squared	0.997728			
F-statistic	219.5486			
Prob(F-statistic)	0.000000			
Durbin-Watson stat	2.590829			

Source: Author Computation from E-view 10 (Table, Appendix)

Table 4.4 outlines the ARDL result of Model 1. It shows that GDPPC has a constant of 2.618143, positive and significant. LOGEXCR and LOGINTR were also positive with coefficients of 0.003608 and 0.147636 but were both not significant. LOGINF and LOGMS coefficient were negative and also not significant (-0.029041, -0.107446). The R-squared determined showed a very high goodness of fit at 99%, implying that most changes in LOGGDPPC could be clarified by the explanatory variables in the study. The DW value of 2.590 also evidenced the absence of serial correlation in the dataset. The overall fitness of the model was also good as revealed by the F-statistics with a p-value of 0.0000 Significant at a 1% level.

ARDL Bound Cointegration Test

Table 4. 5: ARDL Bound Test for Model 1

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	3.585119	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Author Computation from E-views 10 (Table, Appendix)

To carry out ARDL bounds test, the criteria that the variables must be integrated at the zero and one order must be satisfied. For the data set under study, all the variables were integrated in that order hence the need to estimate ARDL bound test. The skewed hypothesis of ARDL bound cointegration is that the variables are not cointegrated while the alternative argues for cointegration. We disprove the null theory if the F-statistics is bigger than the upper and lower bound value at level of significance of 5%. From the table 4.5, the F-statistic (3.585119) higher than the 1(0) (2.56) and 1(1) (3.49) bound at significance level of 5%. We thus state that the null hypothesis cannot be sustained and conclude that a long-term partnership exist relating to Exchange Rate and standard of living in Nigeria. We therefore go ahead to estimate the short run relationship between the variables.

Short Run ARDL Result

Table 4. 6: Error Correction Model Regression

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGGDPPC(-1))	0.101887	0.161668	0.630226	0.5442
D(LOGGDPPC(-2))	0.604927	0.165376	3.657882	0.0053
D(LOGGDPPC(-3))	0.393518	0.192189	2.047561	0.0709
D(LOGEXCR)	0.003608	0.001659	2.175111	0.0576
D(LOGEXCR(-1))	0.006636	0.002376	2.792722	0.0210
D(LOGINF)	-0.029041	0.008855	-3.279562	0.0095
D(LOGINF(-1))	-0.015826	0.009774	-1.619109	0.1399
D(LOGINF(-2))	0.023862	0.008956	2.664394	0.0259
D(LOGINF(-3))	0.031750	0.010791	2.942235	0.0164
D(LOGINTR)	0.147636	0.042324	3.488224	0.0068
D(LOGINTR(-1))	0.102011	0.041566	2.454175	0.0365
D(LOGMS)	-0.107446	0.041274	-2.603258	0.0286
D(LOGMS(-1))	0.141442	0.034204	4.135235	0.0025
Coint Eq (-1)*	-0.518983	0.095186	-5.452319	0.0004

Source: Author Computation from E-view 10, (Table, Appendix)

The result as indicated in table 4.6 is the short run parsimonious result. The lag value of LOGGDPPC is significant and favorable in the immediate past years thus influencing the current value of LOGGDPPC such that an improvement in the immediate past state of LOGGDPPC will increase the present LOGGDPPC in the country. The explanatory variables estimated reveal that exchange rate (LODEXCR: 0.00360) and interest rate (LOGINTR, 0.147636) have a favorable relationship with GDP per capita and are significant. While inflation (LOGINF, -0.02941) and money supply (LOGMS,-0.107446) are negatively related to gross domestic product each individual and also significant.

The coefficient of error correction term measuring the speed of transition to long-term equilibrium of short-term disequilibrium by default should be negatively signed and significant. The ECM (Coint Eq (-1) in the table satisfy the criteria of negativity and significance at -0.518983 and 0.0004 respectively. This implies that about 52% of disequilibrium in the standard of living in countries is corrected every year.

Long Run ARDL Result

Table 4. 7: Long Run ARDL Result for Model 1

Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGEXCR	-0.000666	0.010752	-0.061902	0.9520
LOGINF	0.032550	0.070178	0.463823	0.6538
LOGINTR	-0.086172	0.254542	-0.338536	0.7427
LOGMS	0.130896	0.029529	4.432758	0.0016
C	5.044759	0.483116	10.44214	0.0000

Source: Author Computation from E-view 10 (Table, Appendix)

The table 4.7 is the result for the long run ARDL for the model as stated. An examination of the coefficients

of the variable reveals that LOGEXCR and LOGINTR present a negative and insignificant relationship with LOGGDPPC and are not significant. While LOGINF and LOGMS are both negative but only LOGMS is significant.
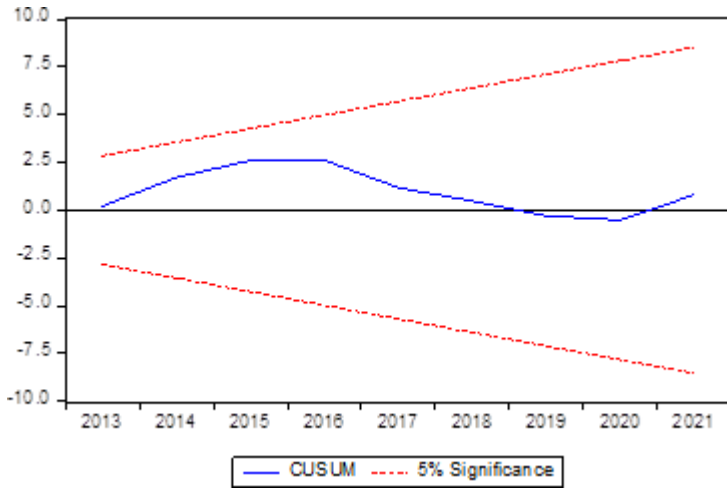
: Testing for stability of the Model 1

Figure 1: Cusum Recursive Test of Stability for Model 1

A Look at figure 1 reveals the outcome of the cumulative sum of residuals which measure if coefficients of regression are changing systematically and whether the model is stable. The two red lines represent the bounds of testing and the blue line are the parameters. In this figure the blue line lie safely within the two red bounds which implies that the parameters of the model 1 are stable and can be used for inference.

ARDL Result for Model 2

Table 4. 8**:** ARDL Result for Model 2 with PCI as Dependent Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGEXCR	0.002240	0.002803	0.799028	0.4386
LOGINF	-0.028605	0.011418	-2.505311	0.0263
LOGINTR	0.094206	0.051591	1.826012	0.0909
LOGMS	-0.017244	0.043891	-0.392895	0.7008
C	0.623994	0.182282	3.423232	0.0045
R-Squared	0.996585			
Adj R-Squared	0.992907			
F- Statistic	270.9623			
Prob F- Statistic	0.000000			
Durbin Watson Stat	2.240141			

Source: Author Computation from E-view (Table , Appendix)

Table 4.8 shows the outcome of the ARDL estimation for Model 2. It shows that PCI has a constant of 0.623994, positive and significant. LOGEXCR and LOGINTR were also positive with coefficients of 0.00224 and 0.094206 and insignificant. LOGINF and LOGMS coefficient were negative (0.028605, -0.017244) with Log INF significant the level of significance is 5%. The R-squared determined showed a

very high goodness of fit at 99%, implying that most changes in LOGPCI could be clarified by the explanatory variables in the study. The DW value of 2.240141 also evidenced the absence of serial correlation in the dataset. The overall fitness of the model was also good as revealed by the F-statistics with a p-value of 0.0000 significant with a 1% level of significance

ARDL Bound Cointegration Test for Model 2

Table 4. 9: ARDL Bound Test for Model 2

F-Bounds Test		**Null Hypothesis: No levels relationship**		
Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	4.284660	10%	2.2	3.09
K	4	5%	2.56	3.49
		1%	3.29	4.37

Source: Author Computation from E –view 10 (Table 15, Appendix 1)

The limits test of ARDL for model 2 reveal that the criteria for variables to be integrated at the zero and one order was satisfied. For model 2 the data set were integrated in that order hence the need to estimate the ARDL bound test. The bare assumption of ARDL bound cointegration is that the variables are not cointegrated while the alternative argues for cointegration. We disprove the null theory if the F-statistics is higher than the upper and lower bound value at level of significance of 5%. From the table 4.9, the F-statistic (4.284660) is higher than the 1(0) (2.56) and 1(1) (3.49) bound at level of significance of 5%. We thus state that the null hypothesis cannot be sustained and conclude that there is a long-term connection between the exchange rate and standard of living in Nigeria. We therefore go ahead to estimate the short run relationship between the variables.

Short Run ARDL Result

Table 4. 10: Error Correction Model 2 Regression

ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGPCI(-1))	0.067907	0.157996	0.429801	0.6744
D(LOGPCI(-2))	0.512375	0.152972	3.349473	0.0052
D(LOGPCI(-3))	0.266938	0.139539	1.912993	0.0780
D(LOGINF)	-0.028605	0.008174	-3.499424	0.0039
D(LOGINF(-1))	-0.022018	0.011143	-1.975946	0.0698
D(LOGMS)	-0.017244	0.031460	-0.548137	0.5929
D(LOGMS(-1))	0.064903	0.035619	1.822168	0.0915
D(LOGMS(-2))	0.037842	0.036265	1.043480	0.3157
D(LOGMS(-3))	0.081799	0.029098	2.811144	0.0147
CointEq(-1)*	-0.413645	0.069331	-5.966208	0.0000

Source: Author Computation from E-views (Table 14, Appendix 1)

Table 4.10 shows the outcome of the short run parsimonious result. After 1st differences the adjustment

coefficient (Coint Eq (-1)) value of -0.413645 show that the previous period deviation from long run equilibrium is corrected in the short at an adjustment speed of -0.41365(41%) and level of significance at 1%. This value is at the average and not likely to cause disruption at this speed. In the near future a decrease in LOGINF -0.022018 increases in is connected to LOGPCI while an increase in LOGMS is with a decrease in LOGPCI.

Long Run ARDL Result

Table 4. 11: Long Run ARDL Result for Model 2

Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGEXCR	0.005415	0.006292	0.860742	0.4050
LOGINF	0.028973	0.037760	0.767289	0.4566
LOGINTR	0.227745	0.121022	1.881852	0.0824
LOGMS	0.158828	0.013876	11.44603	0.0000
C	1.508525	0.212146	7.110771	0.0000

Source: Author Computation from E-view (Table 15, Appendix 1)

The table 4.11 is the result for the long run ARDL for the model 2 as stated. An examination of the coefficients of the variable indicate that LOGEXCR (0.005415), LOGINF (0.028973), LOGINTR (0.227745) and LOGMS (0.158828) are all positively associated with LOGPCI with only LOGMS being significant at a p-value of 0.0000.

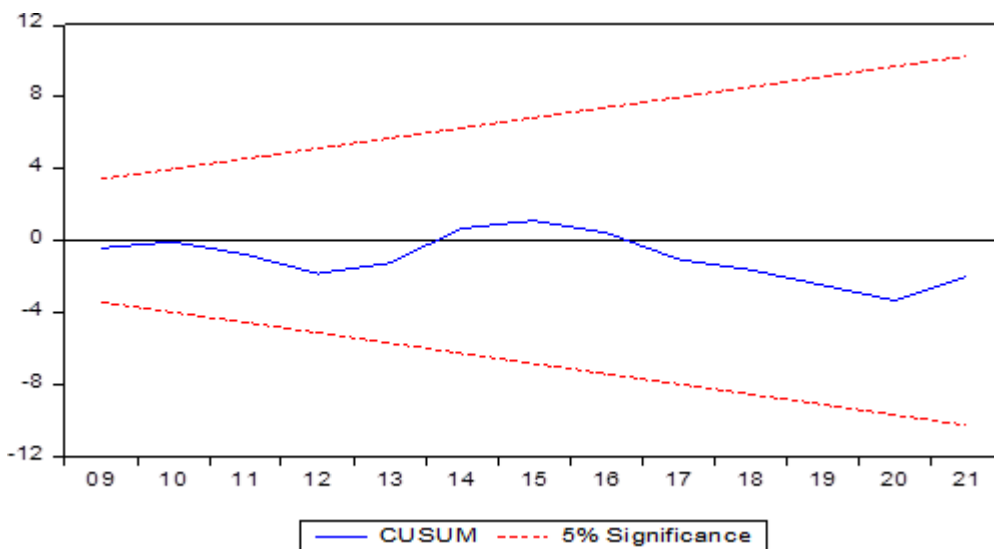### Testing for Parameter Stability for Model 2

Figure 2: Cusum Recursive Test of Stability for Model 2

Figure 2 reveals the outcome of the cumulative sum of residuals for model 2 which measure if coefficients of regression are changing systematically and whether the model is stable. Both of the red lines represent the bounds of testing and the blue line, as well represents the parameters. In this figure the blue line lie safely within the two red bounds, which suggests that the model 2's parameters are reliable and suitable for

inference.

ARDL Result for Model 3

Table 4. 12**:** ARDL Result of Model3 with UNEMP as Dependent Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGEXCR	-0.089443	0.034989	-2.556283	0.0431
LOGINF	-0.940330	0.411765	-2.283654	0.0625
LOGINTR	-1.544475	0.839610	-1.839515	0.1155
LOGMS	-0.248551	0.775788	-0.320385	0.7595
C	-5.826706	3.287187	-1.772551	0.1267
R-squared	0.986935			
Adjusted R-squared	0.941209			
F-statistic	21.58353			
Prob(F-statistic)	0.000511			
Durbin-Watson stat	2.149808			

Source: Author Computation from E-view (Table 16, Appendix 1)

Table 4.13 shows the outcome of ARDL estimation for Model 3. It shows that UNEMP has a constant of -5.826706, negative and insignificant. The explanatory variables of LOGEXCR, LOGINF, LOGINTR and LOGMS were all negatively associated with LOGUNEMP with only LOGEXCR and LOGINF significant at 5% (0.0431) and 10% (0.0625) level of significance respectively. The R-squared measuring the goodness of fit was very high at approximately 99%, implying that most changes in LOGUNEMP could be clarified by the explanatory variables in the study. The DW value of 2.149808 also evidenced the absence of serial correlation in the dataset. The overall fitness of the model was also good as shown by the F-statistics with a p-value of 0.0005 significant when significance level is 5%.

ARDL Bound Cointegration Test

Table 4. 13: ARDL Bound Test for Model 3

Test of F-Bounds		Null Hypothesis: No link between the levels		
Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	5.104623	10%	2.2	3.09
K	4	5%	2.56	3.49
		1%	3.29	4.37

Source: Author Computation from E-view (Table 18, Appendix 1)

The boundaries test for ARDL model 3 reveal that the criteria for variables to be integrated at the zero and one order was satisfied. For model 3 the data set were integrated in that order hence the need to estimate the ARDL bound test. Evaluation of the null hypothesis ARDL bound cointegration is that the variables are not cointegrated while the alternative argues for cointegration. We disprove the null theory if the F-statistics is higher than the upper and lower bound value at level of significance of 5%. From the table 4.9, the F-statistic (5.104623) higher than the 1(0) (2.56) and 1(1) (3.49) bound at 5% significance level. We thus state

that the null hypothesis cannot be sustained and conclude that there is a long-term correlation between the Exchange rate and standard of living in Nigeria. We therefore go ahead to estimate the short run relationship between the variables.

Short Run ARDL Result for Model 3

Table 4 14: Error Correction Model 3 Regression

ECM Regression			
Case 2: Restricted Constant and No Trend			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGUNEMP(-1))	0.915218	0.185007	4.946935	0.0026
D(LOGUNEMP(-2))	0.943877	0.182125	5.182588	0.0020
D(LOGEXCR)	-0.089443	0.016627	-5.379250	0.0017
D(LOGEXCR(-1))	0.281503	0.061418	4.583371	0.0038
D(LOGEXCR(-2))	0.187455	0.039278	4.772502	0.0031
D(LOGEXCR(-3))	0.093799	0.024905	3.766350	0.0093
D(LOGINF)	-0.940330	0.144660	-6.500283	0.0006
D(LOGINF(-1))	1.484545	0.211559	7.017157	0.0004
D(LOGINF(-2))	0.810544	0.204979	3.954267	0.0075
D(LOGINF(-3))	-0.191789	0.103131	-1.859663	0.1123
D(LOGINTR)	-1.544475	0.362552	-4.260011	0.0053
D(LOGINTR(-1))	-6.029191	0.951016	-6.339739	0.0007
D(LOGINTR(-2))	-2.236580	0.446945	-5.004152	0.0024
D(LOGMS)	-0.248551	0.373342	-0.665746	0.5303
D(LOGMS(-1))	0.645337	0.561308	1.149702	0.2940
D(LOGMS(-2))	-1.781505	0.490267	-3.633742	0.0109
CointEq(-1)*	-2.205445	0.294319	-7.493387	0.0003

Source: Author Computation from E-view (Table 17, Appendix 1)

In table 4.14 the short run parsimonious result is displayed. The explanatory variables predicting LOGUNEMP are all negatively signed and significant at 5% level of importance with exception of LOGGMS that was insignificant. After 1st differences the adjustment coefficient (Coint Eq (-1)) value of -2.205445 show that the previous period deviation from the long-term equilibrium has been restored in the short at a very high adjustment speed of -2.205445(220%) and significant at 5% level of significance. This value will often result from implementation of efficient policies aimed at benefitting the economy and populace. In the short term, an increase in LOGEXCR (-0.089943), LOGINF (-9.940330), LOGINTR (-1.544475) and LOGMS (-0.248551) is associated with a decrease in LOGUNEMP.

Long Run ARDL Result

Table 4. 15: Long Run ARDL Result for Model 3

Levels Equation			
Case 2: Restricted Constant and No Trend			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGEXCR	-0.218465	0.050057	-4.364318	0.0047

LOGINF	-0.968558	0.124762	-7.763264	0.0002
Table 4.15 Continued				
LOGINTR	2.679965	0.716313	3.741330	0.0096
LOGMS	0.531403	0.081618	6.510896	0.0006
C	-2.641963	1.301711	-2.029608	0.0887

Source: Author Computation from E-view (Table 18, Appendix 1)

The table 4.16 shows the result for the long run ARDL for the model 3. It can be observed that the coefficients of the independent variables of LOGEXCR and LOGINF are negatively signed indicating a negative association between them and the dependent variable is statistically significant at a level of 5%. The independent variables of "LOGINTR" and "LOGMS" show a positive correlation with the dependent variable "LOGUNEMPL" and are also statistically significant at 5%.
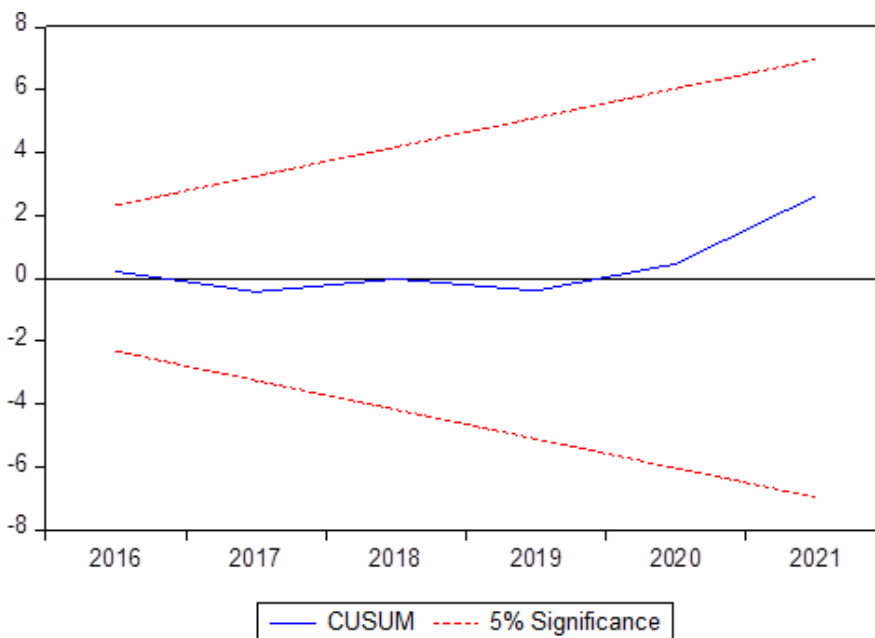
Testing for Parameter Stability for Model 3

Figure 3: Cusum Recursive Test of Stability

Figure 2 reveals the outcome of the cumulative sum of residuals for model 3 which measure if coefficients of regression are changing systematically and whether the model is stable. Both red lines represent the bounds of testing and blue line represents the parameters. In this figure the blue line rest safely within the two red bounds. This means that the model 3's parameters are stable and we can use them to make inferences.

Test of Hypothesis

H0$_1$: The exchange rate fluctuations do not have any impact on GDP per capita in Nigeria.

To test the hypothesis that:

H$_0$: $\beta_1 = 0$ i.e the slope of coefficient is simultaneously equal to zero

H$_1$: $\beta_1 \neq 0$ i.e the slope of coefficient is not simultaneously equal to zero

If the probability of the F statistic result is less than 0.05, The null hypothesis should be rejected, For this test, table 4.4 was used

The F statistics with value of 219.5486 and p-value of 0.0000 below 5% level of significance. The study rejected the null hypothesis and therefore concludes that it cannot be sustained. The impact of exchange rate fluctuations is significant on gross domestic product per capita. The regression equation for this relationship is as stated below.

$$LOGGDPPC = (-0.0007*LOGEXCR + 0.0326*LOGINF\ 0.0862*LOGINTR + 0.1309*LOGMS + 5.0448$$

Hypothesis 2

$H0_2$: Exchange rate fluctuation has no significant effect on per capita income in Nigeria. To test the hypothesis that:

H_0: $\beta_1 = 0$ i.e the slope of coefficient is simultaneously equal to zero

H_1: $\beta_1 \neq 0$ i.e the slope of coefficient is not simultaneously equal to zero

If the probability of the F statistic result is less than 0.05, the study would fail to sustain the null hypothesis, For this test, table 4.8 was used

The F statistics with value of 270.9623 and p-value of 0.0000 below 5% level of significance. The study rejected the null hypothesis and concludes that it cannot be sustained. We therefore conclude that exchange rate fluctuation has a significant effect on per capita income. The regression equation for this relationship is as stated below.

$$LOGPCI - (0.0054*LOGEXCR + 0.0290*LOGINF + 0.2277*LOGINTR + 0.1588*LOGMS + 1.5085)$$

Hypothesis 3

$H0_3$: There is no significant impact of exchange rate fluctuations on gross domestic product per capita of Nigeria. To test the hypothesis that:

H_0: $\beta_1 = 0$ i.e the slope of coefficient is simultaneously equal to zero

H_1: $\beta_1 \neq 0$ i.e the slope of coefficient is not simultaneously equal to zero

If the probability of the F statistic result is less than 0.05, the study would fail to accept the null hypothesis, For this test, table 4.12 was used

The F statistics with value of 21.583 and p-value of 0.0005 below 5% level of significance. The study rejected the null hypothesis and therefore concludes that it cannot be sustained. Hence exchange rate fluctuation has a significant effect on gross domestic product per capita. The regression equation for this relationship is as stated below.

$$LOGUNEMP - (-0.2185*LOGEXCR - 0.9686*LOGINF + 2.6800*LOGINTR + 0.5314*LOGMS - 2.6420$$

Discussion of Findings

Exchange rate fluctuation has no significant effect on gross domestic product per capita of Nigeria.

The findings from the hypothesis one indicate that there is a long run relationship between exchange rate

and the living standard in Nigeria measured as gross domestic product per capita. This relationship was negatively signed indicating that if the exchange rate goes up by one unit, it will bring about a decrease in the standard of living in Nigeria. This finding is consistent with that of Toriola, Folami, Afolabi and Ajayi (2020) who examined the effect of exchange rate fluctuations on human welfare indicators. Further more having found a long run relationship from the ARDL long run bound test, the ARDL short run Error Correction Regression estimated showed that the error correction term [Coint Eq (-1)] is rightly signed. The coefficient of the error term is -0.518983 with probability value of 0.0004. Since the p-value is less than 0.05, it implies that the error term is statistically significant. This indicates that changes in the trend of standard of living of an average Nigerian citizen will eventually be corrected over time. The coefficient indicates that about 51% of the deviations on standard of living of an average Nigerian citizen due to fluctuations in exchange rate can be corrected within a year. This implies that exchange rate fluctuations can be used to stabilize standard of living in Nigerian, suggesting that exchange rate has a significant policy adjustment effect on standard of living of an average Nigerian citizen within the period under review.

Exchange rate fluctuation has no significant effect on per capita income in Nigeria.

From hypothesis two the results reveal a long run relationship subsisting between exchange rate and the standard of living in Nigeria measured by per capita income. This finding is consistent with that Ogini (2022) who examined the effect of Selected Macroeconomic Variables and Per Capita Income in Nigeria. The short run parsimonious ARDL or error correction term [Coint Eq (-1)] is also rightly signed at a value of 0.413645 at a p-value of 0.0000 which is less than 0.05 level of significance, thus is significant. Any distortion in the per capita income would therefore be corrected at the rate of 41%.

Exchange rate fluctuation has no significant effect on unemployment index of Nigeria.

The findings from the hypothesis one revealed that there is a long run relationship between exchange rate and standard of living in Nigeria measured with unemployment rate. This relationship was negatively signed and significant indicating that a unit increase in the exchange rate will result in a decrease in the standard of living in Nigeria measured as unemployment rate. This finding is not consistent with that of Ani and Udeh (2021) who examined the effect of exchange rate on economic growth and found that exchange rate has no significant effect on unemployment rate. The ARDL short run Error Correction Regression estimated showed that the error correction term [Coint Eq (-1)] is rightly signed. The coefficient of the error term is -2.205445 with probability value of 0.0003. Since the p-value is less than 0.05, it implies that the error term is statistically significant. This indicates that shift in the trend of standard of living of an average Nigerian citizen will eventually be corrected over time. The coefficient indicates that about 2.21% of the deviations on standard of living of an average Nigerian citizen due to fluctuations in exchange rate can be corrected within a year. Thus implying that, exchange rate fluctuations play a very important role in the policy stabilization of welfare of the Nigerian citizen.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

The following are the summary of the major findings of this study arrived at from the test of hypotheses formulated in the study

1. Exchange rate fluctuation has a significant short and long run relationship with the gross domestic product (GDP) per capita in Nigeria
2. Exchange rate fluctuation has a significant short and long run relationship with the per capita income in Nigeria.
3. Exchange rate fluctuation has a significant short and long run relationship with the unemployment index in Nigeria.

4. Exchange Rate fluctuation affects some other macroeconomic variables and investment decision which may in turn affect inflow of capital.

Conclusion

The study was carried out with the broad objective of examining the effect of exchange rate fluctuation on the standard of living in Nigeria. The standard of living was measured with Gross Domestic Product Per Capita (GDPPC), Per Capita Income (PCI) and Unemployment index (UNEMP) while the independent variable was exchange rate being the variable of interest with interest rate, inflation rate, and money supply; all of which could affect living standard. The research questions sought connections between exchange rate fluctuations and gross domestic product per capita (GDPPC); per capita income and unemployment rate in Nigeria. This study directs attention and provides a guide to government agencies in macroeconomic policy formulation that will drive economic growth in Nigeria. This will support the ongoing economic dialogue and actions to revitalize the economy of Nigeria to improve the living standards of its citizens. This has much implications on the country's economic analysis, development concerns and research outputs. Based on the findings from the test of hypothesis formulated in the study, the researcher therefore conclude that exchange rate fluctuations have significant effect on the standard of living in Nigeria.

Recommendations

Considering the findings of the study, Government should discourage imports of goods and services that have local alternatives that could create pressure on the exchange rate and thus reduce living standard and encourage export of goods and services that could generate inflow and improve the balance of payment position of Nigeria. Government should improve on the productive sector of the economy as the primary sector of the economy. This will lead on to the production of basic commodities, to drive the national economy and thereby reduce unemployment and improve standard of living. Government should strive to put in place positive economic reforms tailored towards enhancing the economic performance and reducing unfavorable impact of exchange rate fluctuations on the standard of living in Nigeria.

REFERENCES

1. Adekanye, F. (2010): Elements of Banking in Nigeria. F and A Publishers Limited, Lagos, Nigeria
2. Akpanke T.A. (2019) The effect of exchange rate fluctuations on the Nigerian economic growth A published thesis of Near East University Graduate school of Social Sciences Economics program
3. Ani, A.G. &Udeh, N.S Phd (2021) Exchange rate and economic growth in Nigeria. Advance Journal of Management and Social Sciences, 5(5),18-26.
4. Asaleye, A.J., Okodua, H., Oloni, E.F., Ogunjobi, J.O. (2017). Trade Openness and Employment: Evidence from Nigeria. Journal of Applied Economic Sciences, 12(4): 1194-1209.
5. Edeme, R. K. &Okafor, C. J. (2017) Exchange rate fluctuations and household welfare in Nigeria. International Journal of Economics, Business and Management Research1(1), 56-68
6. Elbadawi, I., & Kamar, B. (2006) The Great Debate on Exchange Rate Regimes: Why Should the Mena Region Care?
7. Harley, T.W., (2018) Anempirical investigation of the impact of exchange rate fluctuations on the performance of selected listed firms in Nigeria
8. Hossaim, A. (2002) Exchange rate responses to inflation in Bangladesh (Washington DC IMF Working Paper No 10p/02/xx
9. House C.L, Proebsting, C. & Tesar L. L(2019)Regional effects of exchange rate fluctuations(NBER Working Paper No. 26071. 2 -42
10. Ihe anachor, N. & Ozegbe, A. E (2021). The consequences of exchange rate fluctuations on Nigeria's economic performance: An autoregressive distributed lag (ARDL) approach. International Journal of Management, Economics and Social Sciences (IJMESS).10 (2-3),68-87.

11. Ilechukwu, I. N. & Nwokoye, E. S. (2015) Long run Impact of exchange rate on Nigeria's Industrial output. IOSR Journal of Economics and Finance (IOSR-JEF) .6(5), 75-86.

12. Iyeli, I. I and Utting, C. (2017). Exchange Rate Volatility and Economic Growth in Nigeria. International Journal of Economics, Commerce and Management (7), 583 – 595

13. Jhingan M.L. (2005), The Economic of Development and Planning, 38th Ed. New Delhi: Virade Publications (P)Ltd, India.

14. Kimberly, A. (2018) Unemployment, Its Causes and Consequences.https://www.thebalance.com/what-is-unemployment-3306222

15. Mohammed, S. J. &Omale, S. E. (2020) Relationship between Exchange Rate and Economic Growth: Evidence from Nigeria. Journal of Economic Studies. 17(1):180-194.

16. Mundell, R.A., (1961) A theory of Optimum Currency Areas. The American Economic Review, 51(4): 657-665

17. Nsofo, E. S., Takson, S. M. and Ugwuegbe, S. U. (2017). Modeling Exchange Rate Volatility and Economic Growth in Nigeria. Noble International Journal of Economics and Financial Research, 2(6): 88- 97.

18. Nwobia, C. E., Ogbonnaya-Udo, N, &Okoye, J. N. (2020) Effect of exchange rate fluctuation on Nigeria External trade. International Journal of Economics, Business and Management Research 4(10), 47-60

19. Nwosu, N. C. F. (2016). Impact of Exchange Rate Volatility on Economic Growth in Nigeria, 1987-2014.Unpublished Ph.D Thesis, Department of Banking and Finance, University of Nigeria, Enugu.

20. Nyong, M.O., (2005). Population growth, savings rate and economic development in Nigeria. Dakar, Senegal Union for African Population Studies.

21. Obadan, M. I. (2006). Overview of exchange rate management in Nigeria from 1986-2006. Central Bank of Nigeria Bullion, 30(3): 1-9.

22. Ogbebor, P.I., Oguntodu, J.A. & Oyinloye, P.O. (2020) Inflation and Standard of Living in Nigeria. Developing Country Studies. 10(4), 53-60

23. Ogini, P., (2022) Selected Macroeconomic Variables and Per Capita Income in Nigeria.International Journal of Innovative Development and Policy Studies 10(2):7-20,

24. Ogunmuyiwa M. S (Ph.D), & Adelowokan, O. A (2018) Measuring the Impact of Exchange Rate on Industrial Output in Nigeria. European Journal of Marketing and Economic. 1(2):111-117.

25. Okorontah, C.F. &Odoemena, I.U. (2016, Effects of exchange rate fluctuations on economic growth of Nigeria, International Journal of Innovative Finance and Economics Research, 4(2), 1-7

26. Oladipupo, A.O &Onotaniyohuwo, F.O (2011) Impact of exchange rate on balance of payment in Nigeria"

27. Oniore, J.O., Gyang, E. &Nnadi, K.U., (2016) The impact of exchange rate fluctuations on private domestic investment performance in Nigeria. Journal of Economics and Finance7(3),7-15

28. Osuka, B.O. & Osuji, F. I (2008) Foreign exchange fluctuation and Nigerian's fledging economy.

29. Oyedepo, E.O., Rasaki, G. M., & Onasokhare, A.O (2023) The effect of exchange rate fluctuation on the performance of the manufacturing sector in Nigeria (1990-2020) Research Square

30. Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. Journal of Applied Econometrics, 16, 289-326.

31. Richardson K. E.& Chinonyelum, J. O. (2017) Exchange rate fluctuations and household welfare in Nigeria. International Journal of Economics, Business and Management Research 1(1): 56-68

32. Todara, M. P. & Smith, S. C., (2006). Economic Development, 9th Edition. Pearson Educational Limited England.

33. Toriola, A. K., Folami, R. A., Afolabi, A.O. &Ajayi, F.O. (2020) The implications of exchange rate fluctuations on human welfare in Nigeria. Bizecons Quarterly, 7, 13-25

34. Ukangwa J.U., & Ikechi, V. I. (2022) The Effect of Exchange Rate on Economic Growth of Nigeria. Central Asian Journal of Innovation on Tourism Management and Finance 03(07)

35. **https://alpari.com/en/beginner/articles/7-factors-influence-exchange-rates/** Retrieved on13/2/2023

36. **https://byjus.com/commerce/foreign-exchange-rate/**

37. **https://www.linkedin.com/pulse/why-nigeria-operates-multiple-exchange-rates-system-muftau-eletu**

38. https://jocap.domuni.eu/jocap/article/view/improving-living-standards-in-nigeria-through-human-development/12.