# Effect of Naira Devaluation on Entrepreneurial Development in Nigeria

# Ejiofor, Ngozi Ukamaka PhD

Business Administration Department Alex Ekwueme Federal University, Ikwo, Ebonyi State

# Blessing, Chugo Idigo PhD

Department of Political Science, Faculty of Social Sciences, Chukwuemeka Odumegwu Ojukwu University, Igbariam <a href="mailto:bc.idigo@coou.edu.ng">bc.idigo@coou.edu.ng</a>, blessingchugo33@gmail.com DOI: 10.56201/wjeds.v10.no6.2025.pg90.108

#### Abstract

Naira devaluation is a deliberate downward adjustment of the value of a country's currency relative to another currency or standard currency (usually dollars). The main objective of the study is to investigate the effect of effect of naira devaluation on entrepreneurial development in Nigeria. Specifically, the study examines the effect of exchange rate on entrepreneurial development in Nigeria, assess the effect of interest rate on entrepreneurial development in Nigeria, investigate the effect of inflation rate on entrepreneurial development in Nigeria and examine the effect of export on entrepreneurial development in Nigeria. The data were analyzed with econometric techniques involving Augmented Dickey Fuller and Philip Perron tests for unit roots, Johansson technique for cointegration test for long run relationship and the Ordinary Least Square. The result of the study indicates that export has positive and significant effect on entrepreneurial development in Nigeria while inflation rate, interest rate and exchange rate has negative and insignificant effect on entrepreneurial development in Nigeria within the period under study. The study therefore concludes that naira devaluation has negative effect on entrepreneurial development in Nigeria and has not helped to improve economic growth and development in Nigeria. The study has shown that interest rate and exchange rate have negative effect on entrepreneurial development in Nigeria. This has negatively affected the entrepreneurial development in Nigeria and has in turn reduced the standard of living of average Nigerian citizen in Nigerian. The implication is that entrepreneurial development could have been sacrificed on the altar of unsustainable interest rate and exchange rate in Nigeria. Reiterating to the objectives and findings of the study, we recommend that to further sustain entrepreneurial development in Nigeria and to achieve other macroeconomic objectives of the government in Nigeria, diversification of export is inevitable for Nigeria to achieve entrepreneurial development in the face of devalued currency. In order to reduce import dependency of Nigeria, the government should step up policy to spur domestic industry as the new rebased of entrepreneurial development in Nigeria. An effective policy should be made based on the fiscal and monetary policies which should be aimed at achieving a realistic exchange rate for naira. Again, strict foreign exchange control policies should be adopted in order to help in determination of appropriate exchange rate value. This will go a long way to strengthen the naira and Government procurement from domestic producers, domestic-content requirements on international producers seeking access to the

country's markets, subsidized credit for industrial development, and increased support for research and development are highly recommended.

Key Word: Naira Devaluation, Entrepreneurial Development, Nigeria

#### Introduction

Devaluation of currency when the currency value a nation is deliberately adjusted when exchanged to the currency of another country. Devaluation of a nation's currency is a reduction in the value of money with respect to those goods, services or other monetary units with which the currency of such nation can be exchanged (Yioyio, 2015).

Currency devaluation is a deliberate downward adjustment of the value of a country's currency relative to another currency or standard currency (usually dollars). It is one of the tools of monetary policy to stabilize the economy most especially the less developed ones operating fixed exchange rate or semi-fixed exchange rate (Udo, Ben, Abener, Uzo, 2018).

The currency of a nation can be devalued when discouraging importation and encouraging exportation of goods and services across the borders of the nation. As such, the persistent decrease in the exchange of foreign currency to naira can be backed dated to the introduction of the adjustment programmes in 1986 and it has generated both on concern over the increased inflation and the reduction in the hope of improving the output level of Nigeria. This concern derives from the experience of countries such as Mexico and Argentina where real depreciation of their domestic currencies have consistently been associated with a decline of output and an increase in inflation. (Akinlo & Odusola, 2003). Currency devaluation clinches to the fiscal policy which focal point on a calculated cutback in the value of the domestic (a nation, say Nigeria) currency to maximize gains in trade (Udo, Ben, Abener, Uzo, 2018).).

History of Naira to	Currency (\$1 to N)	Exchange Rate
<b>Dollar Exchange Rate</b>		
Year		
1972	\$1	N 0.658
1973	\$1	N 0.658
1974	\$1	N 0.63
1975	\$1	N 0.616
1976	\$1	N 0.62
1977	\$1	N 0.647
1978	\$1	N 0.606
1979	\$1	N 0.596
1980	\$1	N 0.550
1981	\$1	N 0.61
1982	\$1	N 0.673
1983	\$1	N 0.724
1984	\$1	N 0.765
1985	\$1	N 0.894
1986	\$1	N 2.02
1987	\$1	N 4.02
1988	\$1	N 4.54
1989	\$1	N 7.39

1990	\$1	N 7.39
1991	\$1	N 8.04
1992	\$1	N 9.91
1993	\$1	N 17.30
1994	\$1	N 22.33
1995	\$1	N 21.89
1996	\$1	N 21.89
1997	\$1	N 21.89
1998	\$1	N 21.89
1999	\$1	N 21.89
2000	\$1	N 85.98
2001	\$1	N 106
2002	\$1	N 113
2003	\$1	N 127
2004	\$1	N 130
2005	\$1	N 136
2006	\$1	N 131.80
2007	\$1	N 125.8
2008	\$1	N 120
2009	\$1	N 171
2010	\$1	N 154.8
2011	\$1	N 165.1
2012	\$1	N 161.5
2013	\$1	N 162.9
2014	\$1	N 199
2015	\$1	N 300
2016	\$1	N 320
2017	\$1	N 305.8
2018	\$1	N 306.1
2019	\$1	N 362.59
April, 2020	\$1	N 382.75

The above table shows the history of naira to dollar from 1972 to April, 2020. From the table above, it shows that during the military regime, the rate at which the exchange rate of naira to dollar being exchanged at the foreign exchange market, most of the citizens were happy even to the extent of exchanging, importing and exporting of goods from Nigeria to other nation's especially the United State. Furthermore, the table then shows that before the emergence of democracy and since the inception of Nigeria's democracy, the exchange rate of naira to dollar has drastically caused a heart break and tears to the citizens, economy and the government itself thereby birthing economic hardship within the nation.

Ould-Mey (2013) says it consists of large one-shot devaluation, series of devaluations or a policy of gradual exchange rate devaluation. One major policy option for a country facing a persistent balance of payments deficit is devaluation of its currency. In November 2014, the Central Bank of Nigeria (CBN) among other things moved the bench mark interest rate called Monetary Policy Rate from 12 to 13 per cent, and increased private sector's Cash Reserve Ratio from 15 to 20 per cent coupled with the devaluation of Naira by 8% (N13) from N155 to N168. Devaluation

increases international competitiveness of domestic industries which leads to diversion of consumption of foreign goods to domestic goods (Yilkal, 2014). It is used to encourage exportation, discourage importation and to correct unfavourable balance of payment by making home goods cheaper to foreign countries and foreign goods expensive in the home country. Examining the economy of Estonia, Parts (2013) observed that external devaluation was not going to work for the economy rather, internal devaluation was adopted coupled with other fiscal policy measures and that is why she had a quick recovery from the recent recession and its economy is in better shape than before the crisis. Estonian exports grew 22 percent in 2010 and 25 percent in 2011. This is a result of the rapid increase of high value-added exports by the manufacturing sector, which has also been the main job creator since the crisis. Indeed, export growth has been the main driver of the Estonian economic recovery (Parts, 2013). China achieved its "miraculous" growth as a result of blatant currency manipulation that effectively stole growth from many of its trading partners. Between 1978 and 1993, China's government pushed down the value of the renminbi by nearly two-thirds. In his book, "Devaluing to Prosperity", Bhalla says the value of the currency then nearly halved again between 1994 and 2011 (Berry, 2012). Nigeria's GDP was recently rebased with the result placing the country as Africa's largest economy with an annual GDP of \$510 billion. Nigeria's population and the size of the market has remained an attraction for FDI inflow with the current population estimate projected at 183 million people in 2015 (growing at a projected growth rate of 2.82%). The country is currently ranked the 7th most populous country in the world and has enjoyed a positive GDP growth rate in the last 10 years and a relatively stable exchange rate regime. Between the first quarter of 2013 and the last quarter of 2014 Nigeria posted an average GDP growth rate of 5.8%, a single digit inflation of 8.2% in the last quarter of 2014 and a relatively stable exchange rate regime. The country is now in dilemma of the effect of further devaluation of naira as the former CBN governor, Sanusi Lamido and some other renowned Nigerian economists are clamoring for it while others like Tella, Teriba and Utomi see this as no solution to the economic problem facing the country. This study seeks to contribute to literature by empirically testing the effect of naira devaluation on entrepreneurial development in Nigeria.

#### **Statement of the Problem**

Okaro (2017) states that a nation experiencing the balance of payment deficit has to adopt both short and long term measures to correct the disequilibrium, and one of the measures is to be devalue the nation's currency related to another nation's currency, group of currencies or standard. Nigeria in 1973 cuddles her first currency devaluation at 10 percent in response to U.S. devaluation of the same year at foreign exchange reserves growth at 773.5 percent in 1974 (Udo, *et. al*, 2018). According to the International Monetary Fund (IMF) report in 2015 revealed that nations can devalue their currency to correct the elementary disequilibrium in the trade and balance of payments. However, Todaro (1982) in Udo, *et.al* (2018) argued that devaluation is unhealthy for economic development since valued currency has equally worsened trade and balance of payment of a particular nation.

There are various empirical studies that have been conducted to investigate the effect of naira devaluation on entrepreneurial development in Nigeria and have produced conflicting result in respect of variables, methodology's, findings and conclusion reached

Yaqub (2010); Imimole and Enoma (2011); Kogid, Asid, Lily, Mulok, and Loganathan (2012); Saibene (2012); Hafeez (2013); Osundina and Osundina (2014); Sahil (2015); observed that currency devaluation has positive effect on entrepreneurial development of developing countries

including Nigeria. Moreover, other authors posit that currency devaluation has negative effect on entrepreneurial development of developing countries including Nigeria.

Sahil (2011); Farhi (2012); Siddig (2012); Ould-Mey Soukiazis, Cerqueira, and Antunes, (2013); (2013); Hevia and Nicolini (2013); Yilkal (2014); Aiya (2014); Yioyio (2015).

However, most of these studies were done in an environment outside that of Nigeria; Most of the ones done in Nigeria do not include the core variables, while most of them do not use the standard econometric methodology.

Again, the time frames considered in these studies were short and the results from these studies are conflicting. These shortcomings have somehow contributed to the knowledge gap in the literature, thus warranting a more systematic and comprehensive study on the effect of naira devaluation on entrepreneurial development in Nigeria

This study seeks to improve on the past studies by making use of a broad data set spanning 1988 to 2020 such data set is far more than those used in the previous studies. This work attempts to distinguish between long and short run effects of the variables in the model and determine the causalities among the variables used in the study.

### REVIEW OF RELATED LITERATURE

## **Conceptual framework**

#### **Naira Devaluation**

Naira devaluation is a deliberate downward adjustment of the value of a country's currency relative to another currency or standard currency (usually dollars). It is one of the tools of monetary policy to stabilize the economy most especially the less developed ones operating fixed exchange rate or semi-fixed exchange rate. Ould-Mey (2003) say it consists of large one-shot devaluation, series of devaluations or a policy of gradual exchange rate devaluation. One major policy option for a country facing a persistent balance of payments deficit is devaluation of its currency (Bahmani-Oskooee 1985). In 1973, the United State of America devalued her currency by 10% after which Nigeria devalued Naira for the first time by the same amount. The effect of devaluation was salutary as Nigeria's foreign exchange reserves grew by 773.5% in 1974. In November 2014, the Central Bank of Nigeria (CBN) among other things moved the bench mark interest rate called Monetary Policy Rate from 12 to 13 per cent, and increased private sector's Cash Reserve Ratio from 15 to 20 per cent coupled with the devaluation of Naira by 8% (N13) from N155 to N168. Devaluation increases international competitiveness of domestic industries which leads to diversion of consumption of foreign goods to domestic goods (Yilkal, 2014). It is used to encourage exportation, discourage importation and to correct unfavourable balance of payment by making home goods cheaper to foreign countries and foreign goods expensive in the home country. Examining the economy of Estonia, Parts (2013) observed that external devaluation was not going to work for the economy rather, internal devaluation was adopted coupled with other fiscal policy measures and that is why she had a quick recovery from the recent recession and its economy is in better shape than before the crisis. Estonian exports grew 22 percent in 2010 and 25 percent in 2011. This is a result of the rapid increase of high value-added exports by the manufacturing sector, which has also been the main job creator since the crisis. Indeed, export growth has been the main driver of the Estonian economic recovery (Parts, 2013). China achieved its "miraculous" growth as a result of blatant currency manipulation that effectively stole growth from many of its trading partners. Between 1978 and 1993, China's government pushed down the value of the renminbi by nearly two-thirds. In his book, "Devaluing to Prosperity", Bhalla says the value of the currency then nearly halved again between 1994 and 2011 (Berry, 2012). Nigeria's GDP was recently

rebased with the result placing the country as Africa's largest economy with an annual GDP of \$510 billion. Nigeria's population and the size of the market has remained an attraction for FDI inflow with the current population estimate projected at 183 million people in 2015 (growing at a projected growth rate of 2.82%). The country is currently ranked the 7th most populous country in the world and has enjoyed a positive GDP growth rate in the last 10 years and a relatively stable exchange rate regime. Between the first quarter of 2013 and the last quarter of 2014 Nigeria posted an average GDP growth rate of 5.8%, a single digit inflation of 8.2% in the last quarter of 2014 and a relatively stable exchange rate regime. The country is now in dilemma of the effect of further devaluation of naira as the former CBN governor, Sanusi Lamido and some other renowned Nigerian economists are clamoring for it while others like Tella, Teriba and Utomi see this as no solution to the economic problem facing the country. This study seeks to contribute to literature by empirically testing the effectiveness of Naira devaluation in Nigeria which is import driven and only exports crude oil and a few raw materials with low value added. A recent review of crude oil price shows a sharp decline of about 48.5 per cent between 2014 and 2015. Hence the need to know effective this last result tool will be in Nigeria.

Farhi, Gopinath and Itskhoki (2012) define fiscal devaluation as a set of tax policies that, together with an adjustment in the money supply, will result in the same real economic allocations (consumption, output, and labor supply) as would be achieved by a nominal exchange rate devaluation. Argentina's Peso has been devalued by 20% with the belief of the new development lists in export led economic growth with a greater role for the state than the neoliberal views on the basis of a devalued currency, lower wages, and a relatively stable macro economy. They advocate for sound fiscal policy and recommend that government should operate surpluses in order to curb inflation that might result from it, they belief that, bringing down the country's real exchange rate was inevitable and necessary to promote greater competitiveness and growth (Vernengo, 2014). Whereas, the alternative views, is based on the old Structuralist school which emphasized the structural constraints on economic growth and development, most especially developing countries' need for income and wealth redistribution to promote domestic demand and the need to overcome their subordinate position in the world economy. To them, devaluation was not inevitable and is not particularly good. First, it will be inflationary, since it will lead to higher prices of imported goods, which includes intermediate and capital goods needed for production, and might lead to demands for higher nominal wages, once workers' purchasing power falls. Also, they said, devaluation might be contractionary, causing output to fall since lower real wages will lead to a contraction of demand. Further, devaluation tends to favor exporters, and benefit the agribusiness sector, by redistributing income towards groups with a lower propensity to spend, so also contributing to the contraction of demand. In short, the Structuralizes argue that the devaluation will worsen inflation, in this sense; devaluation will not solve any of the pressing problems. Currency devaluation does not create wealth but it distributes wealth across the boundaries of nation, state or currency zone regions (Ould-Mey, 2013). Internal devaluation was used to combat financial crisis in Estonia because external devaluation was not an option to the economy and it helped to solve unemployment problem and European debt crisis (Parts, 2013).

# **Exchange Rate**

Exchange rate indicates the values of two currencies in terms of another. It is the price of one currency in terms of another currency. Customarily, exchange rate is defined as the price of one unit of the foreign currency in terms of the domestic currency Mejekomi (2000). The issue of exchange rate came in as a result of unequal resource endowed in different parts of the world which

demand the need for inter-dependence. In international transactions where countries require commodities and services for development purposes, they have t settle bills by paying for their purchases and balance for their sales. To effect such transactions, an international acceptable mode of payment is required and this brought about the idea of foreign exchange. Thus, the need for foreign exchange policy involves choosing an exchange rate system and determining the particular rate at which foreign exchange transactions will take place.

The instability in exchange rate has been happening started from the period prior to the independence when Nigeria's currency was closely tied to the British Pound sterling giving it colonial antecedent. The currency was minted in United Kingdom where the exchange rate was also determined. On June 29th, 1972 Nigeria terminated the fixed relationship between her currency and the Pound sterling, introduced the naira on January 1st 1973 and started managing the Naira exchange rate independently in April, 1974 through a policy of "progressive Appreciation". The reason was that giving the level of development and the structure of the economy, exchange rate behaviour was seen as an important link between inflation and monetary policy as well as the mechanism that brings long-term balance of payment adjustment.

Exchange rate instability emerged as one of the controversial issues n developing countries in 1980's and the instrumental policy was made with intense opposition to devaluation for fear of its inflationary impact, among other effects. Nigeria faced such a situation and there has been interest, therefore, in economic performance as a result of exchange rate volatility in the process. This volatility is a topical issue. It is a key determinant that is affecting price signals in a market driven economy. It is generally accepted that exchange rate is a variable, which affect the rate of economic activity and developmental impact on investments, savings, production and consumption and inflation.

In determining exchange rate volatility, it is important to consider the country's economic structure and international characteristics. The Nigerian economy has been over dependent on a single commodity - petroleum. This has subjected the economy to instabilities due to the policies in the international market for petroleum. Consequently, this has been posing serious socio-economic problems on the developmental aspiration of the national economy due to the unfavorable balance of payments necessitated by huge expenditures on imported inputs.

In this connection, several measures have been embarked upon by successive administrations to rectify the structural imbalance in the nation's economy. Undoubtedly, these policies affected all organizations operating in Nigeria. The transformation engendered by Autonomous Foreign Exchange Market (AFEM) necessitated adjustment by these organizations.

To achieve appropriate level of exchange rate, one of two approaches is usually adopted. The authority can either fix it administratively or allow them to be determined by the market forces. The option that is eventually chosen usually reflects a country's historical experience and the monetary authorities' perception f the efficacy of a particular line of action in achieving the set of macroeconomics objectives.

However, proper and timely adjustment cannot be made unless organizations monitor the environment where they operate with a view to identifying the factor capable of improvements.

# **Enigmatic Exchange Rates**

Nobody will doubt that in a globalized market economy, exchange rates are a key price in the trade with goods, services and capital. The evaluation of tradable goods, capital values and hence also expected returns are dependent on them. However, foreign exchange markets on which exchange rates are established seem to be quite mysterious. They rather resemble a kaleidoscope than the

common microeconomic perception of a normal market. Apparently, there is no stable equilibrium exchange rate, and we do not know what really determines the actual exchange rate. Countless studies were conducted, but the undisputed finding seems to be that the result of (Rossi 2013) For a period of one to two years exchange rate forecasts seem not to be better than random walk. It is often added, that the purchasing power parities determine exchange rates in the long term, and consequently also the "equilibrium" on the foreign exchange markets. In this respect, however, the long term is only rarely defined and the switch from short term to long term is not explained. Thus, a contradiction remains: If there are imbalances in the short term, then this "short term "apparently does not apply for all the years under review, and the "long term "would happen only by accident and would then be terminated randomly. On these grounds, a long term equilibrium on the foreign exchange market is like a lull in the wind or the Atlantic Ocean when calm and like a mirror – two rare and only temporary phenomena that meteorologists would not call "long term "or even "balanced".

Exchange rate theory is in crisis. The prevailing opinion rests on the traditions of purchasing power parity theory, monetary exchange rate theory and theories of covered and uncovered interest parities. Deviations are interpreted as exogenous shocks, that act like a legitimating for failure of the respective theory as shocks are nor predictable. However, the observed shocks are not normally distributed as empirical studies have shown. According to these studies, fundamental factors play a minor role for exchange rate determination.

There is a general agreement with respect to the expectations of foreign exchange dealers: They are considered important, but cannot be measured. Hence, empirical evidence is limited. Again, it is implied that "rational" expectations prevail somehow in the long run that they lead to balanced and fundamentals-based exchange rates.

The most common international textbooks on macroeconomics of monetary foreign trade undauntedly teach

David Humes' monetary theory (Nordhaus and Samuelson), purchasing power parity, uncovered interest parity, the Dornbusch model with temporary divergence of purchasing power and interest rate parity - the crushing empirical criticism is not mentioned. Speculation is an alien concept. Students do not learn to understand the reality of foreign exchange markets with flexible exchange rates. Exchange rate theory is not highly valued by macroeconomic research; the profession shies away, while the reality of modern foreign exchange markets seems to become increasingly turbulent and involves more and more currencies.

Keynes did not develop his own exchange rate theory, but he seemed to be wary of market forces. He knew currency speculation from personal experience. Most Keynesians had no great interest in exchange rate theory; however, they tended to prefer rather stable exchange rate regimes. Keynes's "General Theory" focuses on a closed economy; exchange rates are not discussed. Keynes himself, but especially Paul, Charles and (1013) investigated the expectation formation and speculation on asset markets and viewed it as vitally important for the functioning of market economies.

These approaches to the theory of expectations in asset markets can be very well applied to foreign exchange markets, because holding money in various currencies is an important form of differentiated liquidity preference on a special variant of asset markets. Few Keynesians work on exchange rate theories (Harvey 1991 and 1996, Schulmeister 1988). The innovative contributions come from the field of "behavioral finance", which is no clearly defined theoretical movement; upon closer inspection, significant parallels to the aforementioned views of Keynes, Davidson, Kindle berger and Minsky and other Keynesian authors become apparent.

#### **Inflation Ration**

Inflation can be defined as a general rise in overall price level. Griffiths, defined inflation as a condition of generalized excess of demand of stocks of goods and flows of real income, a rise in per capital income of stocks of flow of money income. There is a need to distinguish between the normal interest rate and the real interest rate in order to understand how the rate of inflation affects the level of interest rate. Where the normal interest rate is straightforward rate, for example, 10%, the real interest rate is the nominal rate adjusted for the expected rate of inflation. If inflation rate is expected to exceed the level of interest during the period of the loan, the real rate to the lender becomes negative. Therefore, during the period of rapidly rising inflation, lender expects a normal rate, which exceeds the expected inflationary rate (Agulanna, 2012).

## **Currency Weakness**

(i) Nominal and Real Exchange Rates

The nominal exchange rate is the socially quoted exchange rate. However, this nominal rate does not account for elective purchasing power of a currency (Colander, 2010). The real exchange rate, by contrast, accounts for purchasing power, as it is adjusted for divergences in price levels and rates of price inactions (Colander, 2010).

Where depreciation in the nominal exchange rate is offset by increased domestic price in‡ation, the real exchange rate may remain unchanged (Bird, 1983). In such instances, the potential export price competitiveness advantages of currency weakness would be offset by domestic price in‡ation (Bird, 1983). Burstein, Eichenbaum, and Rebelo (2004) and Owen (2005) argue that the real exchange rate provides a more accurate representation of the electives exchange rate, as it accounts for changes in purchasing power.

(ii) Exchange Rate Arrangements

The International Monetary Fund (IMF) defined an exchange rate arrangement as the manner in which a country's currency operates (IMF, 2008). Exchange rate arrangements may differ according to the degree of control a country has over its currency and whether a formal or informal commitment to the exchange rate path has been made (Calvo & Reinhart, 2002). Using the IMF (2008) classification scheme, exchange rates may be broadly classified into two types of exchange rate arrangements, namely fixed exchange rates and floating exchange rates.

A floating exchange rate is determined by free market forces of demand and supply (Owen, 2005). By contrast, a fixed or pegged exchange rate is one set by the government or by central bank policy (Bautista, 1982). A fixed exchange rate may be associated with a basket of currencies or a single currency, such as the United States (US) dollar; or maintained by the central bank within a particular price range relative to another currency or currency basket (Owen, 2005). Since the 1970s, many developing economies have been encouraged by the IMF and the World Bank to adopt policies of floating exchange rates to facilitate price corrections and promote export-led growth through efficient price discovery (Musila & Newark, 2003). Historically, however, with the legacy of the fixed-rate Bretton Woods system (Dooley et al., 2004), some reluctance amongst policy makers to relinquish control over the exchange rate has been experienced. This 'fear of floating' (Reinhart, 2000:65) may emanate from uncontrollable changes to the exchange rate due to market forces, to which a floating exchange rate exposes an economy (Millman, 1990).

Reinhart (2000:65) argues that the 'official labels' of a country's exchange rate arrangement do not always provide an adequate representation of actual country practice. Hence, a country may officially commit to an exchange rate arrangement, but this does not preclude practice from deviating from the arrangement to which a country's policy makers have committed. Regardless

of whether an exchange rate path has been committed to by a country, the de facto exchange rate arrangement provides a more realistic representation thereof. In a similar approach to several authors cited by Edwards (2011), the de facto exchange rate is used for purposes of this study (IMF, 2008). Based on the de facto exchange rate arrangement in evidence, the mechanics by which a currency may weaken differ, namely devaluation or depreciation.

(iii) Devaluation versus Depreciation Owen (2005:1) states that 'the relative value of a currency can be reduced through either depreciation or devaluation'.

Currency depreciation is usually the result of market operations to achieve a reduction in currency value, consistent with the concept of a floating exchange rate (Krugman & Obstveld, 1997). Currency devaluation is a more conscious event. It is normally the result of a policy decision, whereby a country's official exchange rate is reduced relative to all other currencies (Todaro & Smith, 2009).

A weakening exchange rate, in the absence of price inflation, decreases export prices measured in home currency relative to other currencies (Junz & Rhomberg, 1973). This decrease in export prices renders goods more affordable and thus, arguably, more competitive from a price perspective (Junz & Rhomberg, 1973). Such price competitiveness is viewed by some to be a favourable effect of currency weakness (Owen, 2005). However, a reduction or weakening in an exchange rate may have other unanticipated consequences, such as price inflation caused by the rising demand for exports as well as higher import prices (Todaro & Smith, 2009). For example, if the economy is at full employment, prices are pulled upwards as consumers buy fewer imports and foreigners increase their demand for the home country's cheaper exports (Mussa & Rosen, 1978; Bautista, 1982; Todaro & Smith, 2009). Thus, Kamin and Rogers (2000) argue that price in ation is a material risk should the real exchange rate be weakened or targeted on a sustained basis. Reinhart (2000) argues that such negative effects might be compounded further in the case of emerging markets by virtue of the fact that the bulk of public and private sector debt often is denominated in foreign currency. A home currency that is worth less relative to the foreign currency in which the debt is denominated makes it far more expensive to service the debt. In addition, Boltho (1996) claims that the effects of a weakened currency on price elasticity's and the real exchange rate are not perfectly predictable for policy makers. Further, wage in ation may also be imported with a weakened home currency because workers may seek wage increases to protect the real purchasing power of their incomes in the face of price in ation (Owen, 2005). To boot, Liaquat (2011) holds that any competitive advantage conferred by currency weakness may be further eroded in the instance that economies experience currency weakness simultaneously. To this end, Liaquat (2011) examines evidence from the 1930s where many countries pursued exportled growth via price competitiveness by weakening their currencies. The results suggest that such simultaneous devaluations (or depreciations) created turmoil in foreign exchange markets and rendered the entire exercise 'self-defeating' (Liaquat, 2011:97).

Boltho (1996), however, also offers the view that, under a floating exchange rate regime, currency depreciation may result in a temporary increase in sales, thereby conferring only a temporary competitive advantage. All else equal, this increase in sales will elevate cumulative hours of experience and accelerate learning by doing (Arrow, 1963; Keesing, 1967), thereby taking efficiency-driven ...rms down their long-run cost curves. In this way, a currency depreciation would transform a temporary competitive advantage into a sustained advantage

(Boltho, 1996; Clark, 1996). Berman and Berthou (2009:103) re...ne this argument in stating that whilst 'a real depreciation of the exchange rate would increase the volume of exports', the extent and duration of such an increase is indeterminate.

#### **Theoretical Framework**

The study is anchored upon the Mundell-Fleming model. The Mundell-Fleming model, which is commonly known as the IS-LM-BoP model, is an economic model set forth by Robert Mundell and Marcus Fleming as an extension of the IS-LM Model. The traditional IS-LM Model deals with economy under autarky, the Mundell-Fleming model describes a small open economy. Mundell's paper suggests that the model can be applied to Zurich, Brussels and so on (Mundell, 1963 & Fleming, 1962). The Mundell-Fleming model shows the short-run relationship between an economy's nominal exchange rate, interest rate, and output in contrast to the closed-economy IS-LM model, which focuses only on the relationship between the interest rate and output. The argument that an economy cannot simultaneously maintain a fixed exchange rate, free capital movement and an independent monetary policy has been solved by Mundell-Fleming model. This principle is frequently called the "impossible trinity," "unholy trinity," "irreconcilable trinity," "inconsistent trinity" or the "Mundell-Fleming trilemma." This model uses the following variables: Y is GDP, C is consumption, I is physical investment, G is government spending (an exogenous variable), M is the nominal money supply, P is the price level, I is the nominal interest rate, L is liquidity preference (real money demand), T is taxes, NX is net exports. The Mundell-Fleming model is based on the following equations: The IS curve: Y = C + I + G + NX, The LM curve, M/P = L(i, Y). A higher interest rate or a lower income (GDP) level leads to lower money demand. The BoP (Balance of Payments) Curve: BOP = CA + KA Where BoP is the balance of payments surplus, CA is the current account surplus, and KA is the capital account surplus. Mundell-Fleming model might be naturally extended by considering many other important features, which determine the degree of the reaction of the current account, such as: (i) the price elasticity of world's (country's) demand for tradable goods, i.e., the variation of the exports (imports) in response to a real exchange rate variation; and (ii) the presence of supply shocks effects due to the presence of intermediate inputs and raw materials, e.g., oil, which might generate inflationary pressures (Saibene & Sicouri, 2012).

## **Empirical Review**

Peter (2018) investigates past exchange rate management regimes adopted by the Central Bank of Nigeria since 1959, and attempts to find out whether devaluation can be used to restore equilibrium and significantly achieve national economic growth and development. The Multiple Least Squares method was used to estimate coefficients of the identified relationships following one period lag and autoregressive models formulated to correct errors detected in the data of macroeconomic variables. Significantly, a negative and statistically significant relationship was found between exchange rate and non-oil exports. Devaluation had a negative cause-effect relationship with inflation. It was also negative and significant with national output in the one-year lag specification. Accordingly, the paper recommends that devaluation should not be relied upon as a primary tool for restoration of macroeconomic balance. Instead, a system of managed float supported with strong trade and exchange controls should be used. Complementary fiscal policy measures should also be adopted.

Uket, Adesola and Agida, (2018) The crash of crude oil price has devastated Nigerian economy being a monoproduct economy. The nation's reserves have dropped and the Central Bank is

finding it difficult to meet its import demands. There is agitation from investors and the IMF to devalue the currency to stimulate economic growth, encourage export and discourage import. The public thinks otherwise. The study revealed devaluation of the naira will not encourage significant demand for local goods but rather rise in the prices of local products which rise in direct proportion with imported substitutes thereby fuelling inflation. Also, the economy has remained neither diversified nor internationally competitive. It is recommended among others that government review the current import tariffs, promote incentives to encourage investment in local manufacturing, direct foreign direct investment (FDI) on manufacturing/productive industries with hundred per cent (100%) local raw materials and tax holidays

Udo, Ben and Kingsley, (2017) the fundamental intent of the study is to estimate the implication and affiliation flanked by economic development and Naira devaluation in Nigeria. The above intent shoot from assessing whether there are a significant affiliation and impact from devaluation to economic development proxied by (GDP). Which therefore forms the central argument of the study. The study by means of Classical Linear Regression Model (CLRM) adopts secondary data from 2000 to 2015. The Ordinary Least Square technique signifies the prime technique in relation to an array of other universal/ customary and analytical test. The R2 explains that 92% of the variation in GDP in the model study is explained by the principal regressors. Exchange and the inflation rate were sustained to have a positive and significant affiliation with GDP while, external debt, and public investment was negative and non-significant. The study established that devaluation is not peculiarly Nigerian. The results bare that devaluation does more harm than good within the Nigerian context since the needed prerequisite to ensure gains from devaluation are not present in the system.

Osundina and Osundina, (2014) Currency devaluation as a policy instrument has been used in several countries (both developing and developed). The decision taken by monetary policy committee in November 2014 on naira devaluation has generated a lot of arguments both for and against and its workability on an import driven economy like Nigeria. Renowned economists in the country have not had any consensus hence the need to analyze the effectiveness of currency devaluation in Nigerian economy. Exchange rate, import, export and interest rates were used as proxies for currency devaluation, while real GDP was used to measure growth. The result of the analysis which is in line with the a priori expectation shows that devaluation reduces importation; encourages exportation and increases interest rate. Inflation and unemployment are the side effects of currency devaluation in the short run according to Marshall-Lerner's condition which produces a J-shaped curve of devaluation. Discretionary policies such as fiscal measures should be put in place to curb the associated increase in inflation.

Aiya (2014) assessed people's perception on the impact of devaluation of Nigerian currency on the performance of poverty alleviation programmes in Edo state Nigeria, the study found that currency devaluation limits the performance of poverty alleviation programmes in Edo state.

Saibene (2012), concludes that devaluation is contractionary for countries with a large amount of debt dominated in a foreign currency whereas, they are not for the countries whose debt is denominated in their own currency all things being equal. They also assert that after sharp currency devaluations, the debt burden increases in real terms, leading to the following chain of events: firms' profits decrease, bank lending is constrained, and thus the amount of investment is sharply reduced, reducing also next period output.

Hevia and Nicolini (2013) studied the optimal response of monetary and exchange rate policy to a change in the price of a commodity of that of a small open economy actively trades in international markets. They found that there is a reasonable parameterization of the model that is able to

reproduce the observed volatility of the nominal exchange rate and its correlation with commodity prices.

Farhi (2012), consider the cases of producer and local currency price setting with some price stickiness, as the real effects of nominal devaluations depend on whether prices are set in the producer's currency or in local currency.

Siddig (2012), examined exchange rate devaluation in Sudan using computable general equilibrium. The paper reports the impact of devaluation on several economic indicators considering domestic commodity markets, the factors market and institutions.

Newton (2013), while reviewing sterling devaluation between 1968 and 1970 explained the travails of the British labour government and that it took a year to convince people on the need for devaluation which paid off at last.

Ould-Mey (2003), examined currency devaluation and resource transfer from southern (excolonized) to the Northern (ex-colonizer) countries and found that the resource transfer from the south to the North was contributed to by currency devaluation by devaluation of the export from the South and over valuation of modern exports.

Soukiazis, Cerqueira, and Antunes, (2013), on the effect of external and internal imbalances as well as role of relative prices on growth rate in Portugal found that currency devaluation is a stimulus to growth which is increasing the country's competitiveness in the foreign market.

Kogid, Asid, Lily, Mulok, and Loganathan (2012), Carried out a research on the effect of exchange rates on Economic Growth, using nominal and real exchange rate, they found out that both exchange rates, nominal and real, are considered to have similar effects on economic growth. The results of ARDL bounds test suggest that long-run cointegration exists between both nominal and real exchange rates and economic growth with a significant positive coefficient recorded for real exchange rate. Besides, the results of ECM-based ARDL also reveal that both exchange rates have a similar causal effect towards economic growth.

Yilkal (2014), that devaluation increases the competitiveness of local goods in international market. Also, interest rate and exchange rate are significantly related, this is also expected because as export rate increases, manufacturers are motivated to produce more and are willing to invest more which may automatically increase the exchange rate.

## Gap in Literature

Yaqub (2010); Imimole and Enoma (2011); Kogid, Asid, Lily, Mulok, and Loganathan (2012); Saibene (2012); Hafeez (2013); Osundina and Osundina (2014); Sahil (2015);

Have found that currency devaluation has positive effect on economic growth of developing countries including Nigeria. Moreover, other authors posit that currency devaluation has negative effect in developing countries including Nigeria.

Sahil (2011); Farhi (2012); Siddig (2012); Ould-Mey Soukiazis, Cerqueira, and Antunes, (2013); (2013); Hevia and Nicolini (2013); Yilkal (2014); Aiya (2014); Yioyio (2015).

However, most of these studies were done in an environment outside that of Nigeria; Most of the ones done in Nigeria do not include the core variables, while most of them do not use the standard econometric methodology.

Again, the time frames considered in these studies were short and the results from these studies are conflicting. These shortcomings have somehow contributed to the knowledge gap in the literature, thus warranting a more systematic and comprehensive study of the effect of currency devaluation on economic growth in Nigeria

This study seeks to improve on the past studies by making use of a broad data set spanning 1985 to 2015 such data set is far more than those used in the previous studies. This work attempts to distinguish between long and short run effects of the variables in the model and determine the causalities among the variables used in the study.

# Methodology

# **Research Design**

The study uses an *ex-post facto* research design because the data for the study are secondary data that already exist in the archive of well acclaimed financial publication such as the Central Bank of Nigeria

# **Model Specification**

The model used for the study was the adaptation and modifications from the work of Osundina and Osundina (2017) who examined the effectiveness of naira devaluation on entrepreneurial development in Nigeria

#### The model is stated thus:

ETD =  $\beta$ 0 +  $\beta$ 1EXR +  $\beta$ 2 INFR +  $\beta$ 3 INTR +  $\mu$ 

Where:

ERD = Entrepreneurial Development

EXC= Real Exchange Rate

INFR= Inflation Rate

RINT =Real Interest Rate

# The model was adapted and modified by the inclusion of exports

ETD = f(EXP, INTR, INFR, EXR)

The equation form of the model is:

 $ETD = \beta_0 + \beta_1 EXR + \beta_2 INTR + \beta_3 INFL + \beta_4 EXP \mu$ 

Where:

ETD = Entrepreneurial Development

INFR = Exchange Rate

INTR = Interest Rate

INFLR= Inflation Rate

EXP = Export

 $\beta_0$  and  $\mu$  are the constant and error term respectively while  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are the coefficient of currency devaluation on entrepreneurial development in Nigeria

**3.6 Method of Analyses:** The data will be analyzed with econometric techniques involving Augmented Dickey Fuller and Philip Perron tests for unit roots, Johansson technique for cointegration test for long run relationship and the ordinary least square (OLS).

#### **DATA ANALYSIS**

#### **Unit Root**

The data gathered would be subjected to Unit root test. Since carrying out regressions on non-stationary time series data would lead to spurious regression outcomes, we employed the widely

used Augmented Dickey-Fuller (ADF) and Philip and Peron test to ascertain the stationarity of the data.

**Table 1: The Unit Root Test** 

At Level					
Variables	Augmented	Dicker	Philip and Peron Test		Decision
	Fuller Test				
	t-Statistic	Prob.	Adj. t-Stat	Prob.	
GDP	-2.133424	0.0039	-1.996650	0.0028	Stationary at level
INFR	-1.156835	0.0083	-1.023858	0.0073	Stationary at level
INTR	-4.109778	0.0036	-4.046948	0.0042	Stationary at level
EXR	-8.662571	0.0000	-9.114547	0.0000	Stationary at level
EXP	2.264762	0.4.602	2 2 6 1 7 6 2	0.4.602	Stationary at level
	-2.364762	0.1603	-2.364762	0.1603	

The result of the unit root test indicates that ETD, INFR, INTR, EXP and EXR attend stationary at levels. This is indicated with the probabilities of the test values which are below 0.05 levels. Since the variables are stationary at level, it is suitable to go on with Granger Causality Test and The Ordinary Least Squire analysis

# **Granger Causality Test**

This is used to check for causality between two variables. In this case our aim is to test for a causal relationship between naira devaluation and entrepreneurial development in Nigeria. The rule states that if the probability value is between 0 and 0.05 there is a causal relationship.

## **Pairwise Granger Causality Tests**

Null Hypothesis:	Obs	F-StatisticProb.	Remark
INFR does not Granger Cause ETD ETD does not Granger Cause INFR	27	1.28346 0.2970 1.18583 0.3243	No causal relationship
INTR does not Granger Cause ETD ETD does not Granger Cause INTR	27	0.71888 0.4984 1.54511 0.2356	
EXR does not Granger Cause ETD ETD does not Granger Cause EXR	27	2.01232 0.1575 0.79163 0.4656	
EXP does not Granger Cause ETD ETD does not Granger Cause EDP	27	0.18032	

The result of the granger causality has shown that none of the explanatory variables (INFR, INTR, EXR and EXP) has causal relationship with entrepreneurial development in Nigeria. This indicates that naira devaluation in Nigeria is not related to entrepreneurial development in Nigeria

The Ordinary Least Square Regressions

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	13.51210	4.535635	2.543973	0.0003
EXP	1.558951	0.991508	2.683245	0.0001
INTR	-1.342700	-0.099069	1.339468	0.2052
EXR	-0.155230	-0.695746	0.208798	0.8381
INFR	-1.537317	-0.785673	1.274907	0.4375
R-squared		0.909033	Mean dependent var	6.897917
Adjusted R	-squared	0.898550	S.D. dependent var	1.094669
S.E. of regr	ression	0.601022	Akaike info criterion	2.096940
Sum square	ed resid	4.334733	Schwarz criterion	2.444891
Log likelih	ood	-12.92093	F-statistic	7.951898
Durbin-Wa	tson stat	1.668708	Prob(F-statistic)	0.001265

Source: E-View 9.0

The regression coefficients in the model above can be express as follows:

ETD = 13.51210, INFR= 1.558951, INTR= -1.342700, EXR= -0.155230, EXP 1.5373171 u From the results of the OLS, it was observed that entrepreneurial development in Nigeria (ETD) is positive at +13.51210. This means that if all the independent variables are held constant, entrepreneurial development in Nigeria which is the dependent variable will improve by 13.51210 respectively.

**Export:** The coefficient of export (EXP) is positive at 1.558951with the probability value of 0.0001which implies that export has positive and significant effect on entrepreneurial development in Nigeria. A unit increase in export will lead to an increase in entrepreneurial development in Nigeria by 1.537317units.

**Interest Rate:** The coefficient of interest rate (INTR) is negative at 1.342700 with probability value of 0.2052 which implies that interest rate has negative and insignificant effect on entrepreneurial development in Nigeria. A unit increase in interest rate will lead to a decrease in entrepreneurial development in Nigeria by 1.342700.

**Exchange Rate:** the coefficient of (EXR) is negative at 0.155230 with probability value of 0.8381 which implies that exchange rate has negative and insignificant effect on entrepreneurial development in Nigeria. A unit increase in exchange rate (EXR) will cause entrepreneurial development in Nigeria to decrease by -0.155230 units.

**Inflation Rate:** the coefficient of (INFR) is negative at -1.537317 with probability value of 0.4375 which implies that inflation rate has negative and insignificant effect on entrepreneurial development in Nigeria, a unit increase in rate of inflation (INFR) will cause entrepreneurial development in Nigeria to decrease by 1.537317 units.

Above all, the Adjusted R-squared is 0.898550. This means that 90% of total variation in entrepreneurial development in Nigeria can be explained by the explanatory variables, namely INFR, INTR, EXR and EXP while the remaining 10% is due to other stochastic variables.

The Durbin-Watson statistics at (1.668708) is within the critical threshold; this means the model is free from autocorrelation.

#### Conclusion

This study appraised the effect of naira devaluation on entrepreneurial development in Nigeria. The result of the study indicates that export has positive and significant effect on entrepreneurial development in Nigeria while inflation rate, interest rate and exchange rate has negative and insignificant effect on entrepreneurial development in Nigeria within the period under study. The study therefore concludes that naira devaluation has negative effect on entrepreneurial development in Nigeria and has not helped to improve economic growth and development in Nigeria. The study has shown that interest rate and exchange rate have negative effect on entrepreneurial development in Nigeria. This has negatively affected the entrepreneurial development in Nigeria and has in turn reduced the standard of living of average Nigerian citizen in Nigerian. The implication is that entrepreneurial development could have been sacrificed on the altar of unsustainable interest rate and exchange rate in Nigeria.

#### Recommendations

Amongst the recommendations is export has positive and significant effect on entrepreneurial development in Nigeria. This study suggest that diversification of export is inevitable for Nigeria to achieve entrepreneurial development in the face of devalued currency. Interest rate has negative and insignificant effect on entrepreneurial development in Nigeria. In order to reduce import dependency of Nigeria, the government should step up policy to spur domestic industry as the new rebased of entrepreneurial development in Nigeria. Exchange rate has negative and insignificant effect on entrepreneurial development in Nigeria. An effective policy should be made based on the fiscal and monetary policies which should be aimed at achieving a realistic exchange rate for naira. Again, strict foreign exchange control policies should be adopted in order to help in determination of appropriate exchange rate value. This will go a long way to strengthen the naira. Inflation rate has negative and insignificant effect on entrepreneurial development in Nigeria, Government procurement from domestic producers, domestic-content requirements on international producers seeking access to the country's markets, subsidized credit for industrial development, and increased support for research and development are highly recommended.

# References

- Aiya, F. (2014). People's perception of the impact of currency devaluation on the performance of poverty alleviation programmes in Nigeria, *Developing Country Studies*, 4 (10), 7-16.
- Akinlo, A.E., & Odusola, A.F., (2003). Assessing the impact of Nigeria's naira depreciation on output and inflation. National Centre for Economic Management and Administration (NCEMA), Ibadan, Nigeria. Applied Economics, ISBN: 1466-4283.
- Akpan, E.O., & Atan, J.A., (2012). Effects of exchange rate movements on economic growth in Nigeria. CBN Journal of Applied Statistics, 2(2), 1-14.
- Berry, J. M. (2012). Every man a currency manipulator. *International Economy*, 26(4), 33-71.
- Davidson, P. (2016). The declining dollar, global economic growth, and macro stability. *Journal Of Post Keynesian Economics*, 28(3), 473-493.
- Dwivedi, D.N. (2011). Macroeconomics theory and policy, Tata McGraw-Hill Publishing Company Limited, New Delhi.
- Eme, O.A., & Johnson, A.A. (2010). Effects of exchange rate movements on economic growth in Nigeria. CBN Journal of Applied Statistics, 2(2), 103-116.
- Farhi, E., Gopinath, G., & Itskhoki, O. (2012). Fiscal devaluations. Research Review, (18), 40-43.
- Hevia, C., & Nicolini, J. P. (2013). Optimal devaluations. *IMF Economic Review*, 61(1), 22-51. doi:10.1057/imfer.2013.2
- Keetu (2016). Naira to dollar exchange rate history. the info finder. retrieved from https://www.theinfofinder.com/naira-to-dollar-exchange-rate-history/ on 11th April, 2020.
- Kennedy, S. (2015). Can Europe Save Itself By Weakening the Euro?. *Bloomberg Businessweek*, (4411), 20-21.
- Kogid, M., Asid, R., Lily, J., Mulok, D., & Loganathan, N. (2012). The Effect of Exchange Rates on Economic Growth: Empirical Testing on Nominal Versus Real. IUP *Journal Of Financial Economics*, 10(1), 7-17.
- Newton, S. (2013). Sterling, bretton woods, and social democracy, 1968–1970. *Diplomacy & Statecraft*, 24(3), 427-455. doi:10.1080/09592296.2013.817931
- Ofor, N.T. & Manukaji, I.J. (2016). Effect of currency devaluation in an era of economic downturn in Nigeria. IIARD International Journal of Banking and Finance Research. ISSN: 2406-8634, 2, No.2, 2016.
- Osundina, K. C. & Osundina, J.A (2014). Effectiveness of naira devaluation on economic growth in Nigeria: *International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 Index Copernicus 2(34) 6-14*
- Osundina, K.C. & Osundina, J.A. (2016). Effectiveness of naira devaluation on economic growth in Nigeria. *International Journal of Science and Research*, *5*(3), 1944-1948.
- Ould-Mey, M. (2013). Currency devaluation and resource transfer from the south to the north. *Annals Of The Association Of American Geographers*, 93(2), 463-484.
- Parts, J. (2013). Estonia and the European debt crisis. CATO Journal, 33(2), 269-274.
- Peter N. A. (2018). Effect of currency devaluation on macro-economic variables: The Nigerian Experience: *Journal of Economic Perspectives* 9(4): 73-96.
- Rapetti, M., Skott, P., & Razmi, A. (2012). The real exchange rate and economic growth: are developing countries different?. *International Review Of Applied Economics*, 26(6), 735-753.
- Robert Brand (2020). Oil drop may force nigeria to devalue naira as reserves Sink. A report from Bloomberg on March 9th, 2020.

- Saibene, G., & Sicouri, S. (2012). Effects of currency devaluations on the economic growth in Developing Countries: The Role of Foreign Currency-Denominated Debt. *Atlantic Economic Journal*, 40(2), 191-209. doi:10.1007/s11293-011-9300-4
- Siddig, K. H. (2012). The controversy of exchange rate devaluation in Sudan: An Economy- wide General Equilibrium Assessment. *African Development Review*, 24(3), 245-254.
- Soukiazis, E., Cerqueira, P. A., & Antunes, M. (2013). Growth rates constrained by internal and external imbalances and the role of relative prices: empirical evidence from Portugal. *Journal of Post Keynesian Economics*, 36(2), 275-298. doi:10.2753/PKE0160-3477360205
- Udo, E. S., Ben, E. U. & Kingsley, I. I. (2017). The implication of Naira devaluation to the Nigeria's economic development: *Business and Economics Journal*
- Udo, E.S., Ben, E.U., Abener, I.P., Uzo, J.I. (2018). Implication of naira devaluation to the Nigeria's Economic Development. International Journal of Economic, Commerce and Management. United Kingdom, Vol. VI, Issues 4, April, 2018. http://ijecm,co.uk/ ISBN: 2348-0386.
- Uket, E. E., Adesola, W. A. & Agida, J. I. (2018). Perception on the naira devaluation and its effects on poverty reduction in Nigeria: European Journal of Accounting, Auditing and Finance Research 6, (5).20-34,
- Vernengo, M. (2014). Don't Cry for Argentina--Not Yet!. Dollars & Sense, (311), 23
- Yioyio, C.G. (2015). What caused the Asian currency and financial crisis? Part I: A macroeconomic overview. NBER Working Paper 6833.