**External Sector and Economic Growth of Nigerian and South African Economies:
1986-2016**

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DECLARATION

This is to declare that this research work was carried out by Ogbonna, Kelechukwu Stanley; Reg. No.2014417009F. To the best of my knowledge, this work is original and has not been previously submitted to this University or other institution.

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APPROVAL

We hereby certify that this dissertation titled External Sector and Economic growth of Nigerian and South African Economies: 1986 – 2016 by Ogbonna, Kelechukwu Stanley with Registration No. 2014417009F, satisfied the standard in partial fulfillment of the requirements for the award of Doctor of Philosophy (Ph.D) in Banking and Finance.

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DEDICATION

I dedicate this work and the completion of my Ph.D programme to the Almighty God, through his blessed son, Jesus Christ for the strength, courage and abundant grace to successfully complete this programme.

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Abstract

This study is a comparative evaluation of external sector on economic growth of Nigeria and South Africa economies. The specific objective of this study is to examine and compare the influence (role) of External sector (in External Debt, External Reserves, Exchange rate, Foreign Direct Investment and Trade Integration) on economic growth of Nigeria and South African economies. The study used secondary data obtained from World Bank, IMF and the Central Bank of respective selected countries and subjected them to ADF stationarity test, Johansen co-integration test, Multiple regression analysis and Granger Causality test to analyse the study over the period between 1986to 2016. The findings from the study showed that all the external sector variables except FDI and external reserves had insignificant relationship with the economic growth of South Africa; however, both FDI and external reserves contributed significantly on economic growth of Nigeria, while external debt, exchange rate and trade integration have insignificant implication on Nigerian economic growth but had significant implication and relationship with South African economic growth. The study therefore concludes that external sector variables improves the economic growth of South Africa significantly and have no significant implication on Nigerian economic growth. Hence, the study recommends among others, the building up of external reserves and reduction of external debt so as to manage exchange rate instabilities while improving FDI to facilitate economic growth of Nigeria and South Africa.

CHAPTER ONE

INTRODUCTION

1.1   Background to the Study

A healthy external sector is a key macroeconomic policy objective of every developing economy to achieve economic growth in the world. The importance of the external sector lies in the fact that every nation engages in trade where payments and receipts are recorded and the external sector performance measures the performance of an economy with respect to the rest of the world (Korsu, 2007).

The external sector is a very significant segment of every developing and developed economy in the world. The sector comprises of mostly the external reserves, external debt, exchange rate, foreign direct investment and balance of trade; they play key roles on economic growth of a nation. The African economy is highly interactive and receptive to global investment and transactions to boost and modify economic conditions. The external sector reflects the economic transactions between the residents of a nation and the rest of the world. Fazal and Shah (2016) states that external sector of any economy refers to international transactions. The international transaction may be in the form of exports, imports, capital account inflows, capital account outflows etc. with the rest of the world and are recorded in the form of accounts which shows the contribution of the external sector.

Economic transactions between one country and the rest of the world are capable of generating equilibrium or disequilibrium between nations. In order to maximize equilibrium or minimize disequilibrium arising from balance of payments, a number of policies have to be put in place and executed at various times and in various forms depending on whether the country is experiencing equilibrium or disequilibrium in the balance of payment (Kpakol, 2012). The external sector is said to be at equilibrium when the receipt is equal to the total payment made, the exchange rate is stable and external reserves are adequate (Gbosi, 2005). An ideal external sector is one that is stable and in equilibrium over time (Salvatore, 2000). However, in more practical terms, such a perfect system hardly exists. A deficit outcome in disequilibrium represents a situation where receipts are inadequate to accommodate the payments, while a surplus position in disequilibrium reflects a situation where receipts are in excess of the

payments (CBN, 2013). According to Pauly (2000), the estimation of the external sector should reflect trade flows, services flows, transfers as well as direct and portfolio capital flows. Hence, external sector performance of a country depends on the policies behavior of a country to the global economy.

Macro-economic policies of one country cannot function independently of the policies adopted by other countries. Economic theories suggest that a change in the policies adopted by an economy bring change in the international transaction which not only affect the output, but also may affect the growth rate and economic stability of a country. The external sector affects the economic growth of a country because of changing policies from time to time (Fazal & Shah, 2016).

Onyemaechi (2013) opined that the features of Nigeria's external sector have remained basically the same since independence. He stated that the external sector is characterized by the dominance of a single export commodity, the crude oil. Between 1960 and 1970, the economy was dominated by agricultural commodity exports. Such commodities included cocoa, groundnut, cotton and palm produce. Beginning from the mid-1970s however, crude oil became the major export commodity and major source of foreign reserves in Nigeria. While in South Africa, the gold mines and other minerals resources have been their major exported commodity and sources of revenue in international trade. The South African economy is also a middle-income, emerging market with an abundant supply of natural resources; well-developed financial, legal, communications, energy, and transport sectors and a stock exchange that is the 15th largest in the world.Thus, Nigeria commodity economy is monotonous while the South African commodity economy is multiple which trigger a point of comparism of the two emerging countries external sector on economic growth.

According to Djeri-wake (2009), the economic conditions of African countries especially Nigeria advanced over the period of 1990s to late 2000s as a result of the rapid phase of industrialization which is reflected in the market capitalization of less than #50,000Million in 1990 to over #350,000Million. The African economies also improved with the inflow of foreign investment aided by high quality research-development, improved foreign reserve and managed debt structure.

The Central Bank of Nigeria (CBN) in its report of 2012 estimates that the external sector had remained under pressure with lower current account surplus and reduced capital flows in quarter 2 of 2012. Major challenges to the sector included surging import bills due to low manufacturing output, lingering infrastructural and security problems, slow global recovery and dampened world demand for commodities as well as the dismal performance of the non-oil exports sub-sector (CBN, 2012).

To achieve "balance of payment equilibrium" has always been the major objective of the external sector policies of emerging African countries like Nigeria (CBN, 2010). This objective has been vigorously pursued through the maintenance of a relatively stable exchange rate through CBN interventions in Nigeria. The Nigerian external sector has been under severe pressure. Thebalance of payment has been more on the deficit than on the surplus. Theexternal sector was under severe pressure due to accumulated deficits in the balance of payments and the effect of continuous fall in crude oil prices respectively (CBN, 2015). The balance of payment disequilibrium was also conspicuous in South Africa; as the report in World Bank (2014) stated that the current account deficit widened to a post crisis high of 6.8 percent in the third quarter of 2013, as imports continued to outpace exports. South Africa's current account deficit continues to pose a serious macroeconomic vulnerability, especially given the role of short-term capital inflows in financing it. During 2014, the current account deficit was largely funded by volatile capital flows as net foreign direct investment inflows remain very low (World Bank, 2015).

Emerging African countries resort to borrowing from different multinational financial institutions, developed countries and building of debt structures to achieve economic growth level that leads to high debt overhang that further leads to substantial resource outflows and impinged on the size of external reserves and economic growth at large.

1.2   Statement of the Problem

The advent of greater global economic integration (openness) influencedthe world economy towards increased domestic financial system. Global economic shocks could impact the domestic economy through the trade channel (imports/exports) and the financial channel. Although the Nigerian and South African countries of interest have proven track record for its resilience against crises, for instance during the global financial crisis of 2008, external sector

shocks still demand and showcased vigilance of the two countries to international trade shocks (Rizki, Tarsidin & Idham, 2013).

Theglobal financial crisis of 2008 affected most global financial institutions and not excluding emerging African economies; their international trade were adversely affected due to poor political situations in African countries (e.g. South African xenophobic attacks), poor economic policies (Nigerian priority for anti-corruption war in place of economic transformation), poor external reserves, high external debt and exchange rate, high level of uncertainty in the African economies (e.g. political and administrative changes in Nigeria and South Africa affected assurance of investors) and poor domestic savings due to fiscal deficit.These phenomenal imbalances observed in the African economies' external sectors have raised serious concerns on the contributions of the sector on economic growth of African economies, especially in Nigeria and South Africa, given the gross inadequate current account balances, poor external reserves; high external debt, unfavourable exchange rates and low foreign direct investment.

The Nigerian and South African economic situations is highly different in commodity relations (exportable/tradable potentials) with the rest of the world and the subsequent ranking of the two countries as the highest growing African economy in 2014 based on GDP ratings provide a need to inquire as to how the external sector has relatively affected economic growth in both countries. The Nigerian economy being monotonous (i.e having crude oil as its major commodity in international trade) and South Africa economy being diversified (i.e mining golds and other minerals, communications outlets, energy services and other services as commodity in international trade) reveals the differences in their economic positioning in trade and possible reactions of their economy to external sector relations (parameters).

The differences in economic relations with the rest of the world provide the need to look at how external sector relations affect and relate to economic growth of the two countries in a comparative study. The external sector variables used are based on the parameters showcased by the CBN (2012) on external sector developments as external reserves, external debt, exchange rate fluctuation, Foreign Direct Investment inflow and trade integrations which are not captured in previous studies of Ajayi and Oke (2012), Osuji and Ebiringa (2012), Ekwe and Inyiama (2014), Utomi (2014), and Nwaeze (2017). Hence, the aim of this research is to uncover the

nature of relationship between external sector parameters and economic growth in Nigerian and South African economies by considering five external sector variables (which include external debt, external reserves, exchange rate, FDI and trade integration) on Gross Domestic Product.

The pertinent questions are: Is there any relational impact between external sector variables in external reserves, exchange rate and trade integration on economic growth proxied by GDP in Nigeria and South Africa economies? How has external debt and foreign direct investments affected economic growth in Nigeria and South Africa? Can a long-run cointegrating relationship be established between external sector indicators and economic growth of the study nations?

1.3 Objectives of the Study

The broad objective of this study was to examine and compare the role of external sector on economic growth of Nigerian and South African economies. The specific objectives include:

1 To ascertain the effect of External Debt on Economic growth of Nigerian and South African economies.

2 To examine the relationship betweenexternal reserves and Economic growth of Nigerian and South African economies.

3 To examine the relationship between exchange rate and Economic growth of Nigerian and South African economies.

4 To ascertain the effect of FDI on Economic growth of Nigerian and South African economies.

5 To examine the relationship between trade integration and Economic growth of Nigerian and South African economies.

1.4 Research Questions

This study answered the following questions;

1 To what extent has External Debt influenced Economic Growth in Nigerian and South African economies?

2 To what degree is the relationship between external reserve and economic growth in Nigerian and South African economies?

3 How is the extent of relationship between exchange rate and economic growth in Nigerian and South African economies?

4   To what degree has FDI impacted on economic growth in Nigerian and South African economies?

5   To what extent is the relationship between trade integration and economic growth in Nigerian and South African economies?

1.5   Research Hypotheses

This study was guided by the following hypotheses;

Ho_1:   External Debts have no significant effect on Economic Growth of Nigerian and South African economies.

Ho_2:   There is no significant relationship between External Reserves and Economic Growth in Nigerian and South African economies.

Ho_3:   Exchange Rates have no significant relationship with Economic Growth of Nigerian and South African economies.

Ho_4:   There is no significant effect of FDI on Economic Growth in Nigerian and South African economies.

Ho_5:   Trade Integration has no significant relationship with economic growth of Nigerian and South African economies.

1.6   Scope of the Study

This study concentrated on selected Nigerian and South African economies and their external sector activities for the period 1986to 2016. The starting period of 1986 was chosen to accommodate the Structural Adjument Programme role on economic redirection in 1986. The data on external reserves, debts, exchange rates, FDI and trade openness; and economic growth indicator in Gross Domestic Product (GDP) are drawn from their respective external sectors (Nigeria and South Africa) and economic growth variable.

The selected external sectors were based on their current account balances and they include:

1.   Nigerian External Sector (NES), Nigeria.

2.   South Africa External Sector (SAES), South Africa.

1.7   Limitations of the Study

The success of this study depends to a very large extent on both qualitative and quantitative factors. This study is restricted to a period of 1986 – 2016. During this period the

governments of the two countries have carried out reforms and policies which somewhat influenced the external sectors performance.

In addition, the external sector indices which this study employed are constructed to replicate the functions of each of the external sectors variable in economic terms on economic growth.

1. **Cross Country External Sector Information:** This is affected by the different reporting style on the balance of payments adopted by different countries, thus World Bank Atlas data standard is employed.

2. **Data Gathering:** On the study itself, it's usually very difficult to gather relevant data and to choose the best method to analyze gathered data for effective completion of this research work. The researcher however collected data from IMF, World Bank Statistical Data bank and Knoema sources.

1.8   Significance of Study

This research among other things is expected to broaden the scope of knowledge in the following areas:

1.   **Policy Makers**: To encourage policy makers, regulators and the government, make informed decisions on how best to develop appropriate macroeconomic policies and put in place adequate structures to guide and monitor external sector variables in external reserves that will enhance the chance of the economy in international transactions, manage external debt, control exchange rate, improve FDI and have a good trade integration for excellent performance and safety of the balance of trade in general.

2.   **The Academia:**It will serve as knowledge bank and reference material on external sector variable fluctuations in external reserves, external debt, exchange rate, FDI, trade integration and its effect on economic growth of Nigeria and South Africa for prospective researchers and students of the banking and finance discipline and economics at large.

3.   **Economic Watchers (General Public):** The general public will gain more insight into the economic implications of the external sectors' variables fluctuations. It will further enlighten them on whether or not the hypothesized relationship between external sectors' variable on economic growth truly exists.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

**2.1	Conceptual Framework**

**2.1.1	External Sector and its Centrality in Economic Growth**

Ghosal (2012) view that in an open economy, macroeconomic factors structure the behavior of the macro fundamentals as well as the macro variables relating to the external sector of any economy cannot be independent of the behavior of the same in the global economy especially in the economies with which the former is integrated. The nature of inter-relationship between the macro fundamentals and especially the fundamentals of the external sector is well known from the conventional theoretical wisdom on the international economics. Obviously in an open economy, macroeconomic factors structure not only the aggregate demand of an economy but also contains an external part (i.e. the demand for exportable) depending on the exchange rate and the domestic income of the foreign country; the aggregate supply of the country concerned also constitutes a part known as the import component which depends on the exchange rate as well as the domestic income.

Considering the Balance of Payment (BOP) of an economy, a surplus simply means the accumulation of foreign asset and the deficit implies the reverse i.e. the decumulation of assets (i.e. the liabilities to the foreigners). Deficit BOP facilitates the need for debt financing for investment and infrastructural development and reserves to cushion the shock of the impact of deficit, attract foreign investment to boost the economic situation and trade integration to ensure a more robust investment relationship to facilitate a favourable balance of payment.

Ajayi and Oke (2012) posit that the decade of the 1950s, 1960s and the early 1970s are often described as "GOLDEN YEARS" for developing countries in Africa because the rate of growth of these economies was not just high but was mostly internally generated. Most African economies experienced period of economic booms and growth with majority of their revenues

emanating from exportation of goods and services. However, this economic boom was short-lived and recent internal economic collapse ensured the need for an appropriate external sector to manage the economic debris.

It is observed that the behavior of the external sector is partly the outcome of the attitudes and policies of government from time to time towards this sector. Immediately after independence most developing economies in Africa followed the strategy of import substituting industrialization with its main focus on the development of heavy industry including the machinery manufacturing sector and the infrastructure.

Ghosal (2012) state that poor domestic saving (less than 7% of GDP in basically every year), foreign exchange crisis of 1980s, poor and limited domestic skills, entrepreneurship and government liberal policies necessitated the need for inflow of FDI via international transaction and economic liberalization. Trade liberalization may have a negative impact on developing countries because of the increase of imports, which worsen the trade balance (Santos-Paulino & Thirlwall, 2004). The magnitude of the impact on exports or imports depends on the country and on its initial conditions (Awokuse, 2007).

However, some economists and the IMF were of the view that financial openness is beneficial to the domestic economy (Fischer, 1998; Summers, 2000). However, there are others who staunchly opposed the benefit of financial openness to the domestic economy (Bhagwati, 1998; Rodrik, 1998; Stglitz, 2003). Further studies investigated the relationship between the cross-border foreign capital flow and economic growth, but they showed no definite evidence of positive relationship between financial openness and economic growth in the developing countries (Kose, Prasad, Rogoff & Wei, 2006; Prasad, Rajan & Subramanian, 2007; Prasad et al, 2003 & Henry, 2006).

Berasaluce and Romero (2017) examined external sector and economic growth, evidenced from Korea to determine the effect of exportation, importation and foreign direct investment on economic growth of Korea. They discovered that exports and foreign direct investment are not driving economic growth in Korea. Hence, recommended that one should be cautious about policies that promote such investment and export tools to boost economic growth.

In Nigeria, Ewetan and Okodua (2012) studied export and economic growth within the context of the Nigerian economy using multivariate VAR model via Cointegration and Granger causality tests to find the nature of the relationship between exports and economic growth. The goal was to find out if there is the existence of a long-run relationship between GDP, exports and imports, and also determine the direction of causality between exports and economic growth. They discovered that the huge earnings from exports have no significant contribution to economic growth and economic growth rather granger cause a significant contribution on export in Nigeria.

According to IMF (2016), economic activity in sub-Saharan Africa in 2015 slumped to its lowest level in the last 15 years. Output expanded by 3.4 percent, just a little above population growth, down from 5 percent in 2014. The main reason for the slowdown is the sharp decline in commodity prices, which has placed a number of the region's larger countries under severe strain, with a pronounced impact on the region-wide aggregate.

Many African countries grapple with the more difficult external environment. Beyond that, drought (particularly in eastern and southern Africa) was an added source of economic difficulties for several countries (IMF, 2016). With the external environment now much less supportive, fiscal and foreign exchange reserve buffers limitedly and financing constrained, extent of macroeconomic and debt vulnerabilities, and poor available external and fiscal buffers. Hence, in line with the findings of International Monetary Fund on African economic scenarios at the external sectors, the study arranges the concept on external sector based on major key elements of the sectors.

2.1.2 External Reserves

External Reserves are variously called International Reserves, Foreign Reserves or Foreign Exchange Reserves. While there are several definitions of international reserves, the most widely accepted is the one proposed by the IMF in its Balance of Payments Manual, 5th edition. It defined international reserves as "consisting of official public sector foreign assets that are readily available to, and controlled by the monetary authorities, for direct financing of payment imbalances, and directly regulating the magnitude of such imbalances, through intervention in the exchange markets to affect the currency exchange rate and/or for other purposes" (CBN, 2014). External reserve is self-insurance against costly output contractions

induced by sudden stops and capital flight (Aizenman & Lee, 2005). CSEA (2016) revealed that external reserve is a means by which a nation can manage its exchange rate and also act as a guarantor for external debt.

International Monetary Fund (Balance of Payments Manual and Guidelines on Foreign Exchange Reserve Management, 2001) defines reserves as external assets that are readily available to and controlled by monetary authorities for direct financing of external payments imbalances, for indirectly regulating the magnitudes of such imbalances through intervention in exchange markets to affect the currency exchange rate, and/or for other purposes. External reserve is mathematically described as a sub-set of external asset (Okororie, 2008).

2.1.2.1   External Reserves in an Economy

Policy makers usually hold international reserves for several reasons: to finance external payments imbalances in order to smooth current consumption; to intervene in exchange markets; and to provide a buffer to cushion the economy against future exigencies (Greenidge, Craigwell, Whyte & McKenzie, 2013). Polterovich and Popov (2002) and Cruz and Kriesler (2008) said that international reserves are used to promote growth. They suggest that the accumulation of foreign exchange reserves contributes to economic growth by increasing both the investment/GDP ratio and capital productivity.

However, in recent times, accumulation of foreign exchange reserves has been abetted by policymakers' desire to prevent currency appreciation, and to maintain the competitiveness of the tradable sector in these countries (Rodrik, 2006; Aizenman, 2007; Fakuda & Kon, 2008; Carasco et al; 2013).

Romero (2011) made a comparative study of factors that affect foreign reserves in China and India. She observes that the type of exchange rate system has influence on the demand for reserves (Beaufort & Kapteyn, 2001). The exchange rate is depreciated when the rate goes up i.e. more of the domestic currency is required to buy a unit of foreign currency in other to offset this devaluation, the central currency in the reserve have to buy some of its own currency in the open market. Reserves will then be used to buy the domestic currency thus depleting reserves. As China and India have tremendous quantity of reserves, Romero hypothesized that China's

reserves will be negatively correlated to the level of the exchange rate. On the part of India, she hypothesized that India's reserves will be positively correlated to its exchange rate.

In the study of Amarcy (2009) on comparative study of Mozambique and Nigeria on negative real and monetary implications of excessive accumulation of reserves basing her study on the work of Green and Torgerson (2007), gave the parameters of evaluating adequate reserves level. The parameters are:

(i)   Reserves are to equal short term debt- This is called Greespan – Gniditti Rules which states that countries with vulnerability to capital account crisis may hold reserves high enough to cover all debts of short maturity of about one year. The aim is to prevent countries from going into currency crisis.

(ii)   Reserves to equal 5-20% of Money Supply (M2). This is used by countries that need to fortify the confidence in the value of the home currency to reduce the risk of diversion of capital.

(iii)   Reserves to equal 3 or more months of imports: This is appropriate to low income and countries where the exposure to current account shocks is high. Nigeria is very susceptible to this being an import inelastic nation. In low income countries such as Mozambigue foreign exchange is very scale and much of it comes by way of foreign aids

Mendoza (2004) opines that external reserve management in many countries was inspired by the need to guard against future financial crisis. However, Dooley and others (2004) argued that external reserve buildup agenda in Asian apex banks was to guard their currencies from falling against the U.S. dollar in order to promote their export substitution led growth strategy. Shameen and Moon (2005) stated that Singapore maintains large foreign reserves to sustain its long term economic growth and instituted two major reserve funds or institutions; Temasek Holdings and Government of Singapore Investment Corporation (GIC), which invests a portion of the country's reserves in diverse instruments, such as corporate sovereign bonds, equities, real estate holding and private equity holdings in different parts of the world and also through their asset allocation approaches attempt to nurture domestic industries identified as strategically important.

Eniekezimene and Apere (2016) posit that external reserves are generally kept in the form of high quality marketable securities issued. However, such holdings are not without cost;

the costs usually include, among others, financing, personnel, systems, and overhead expenses, which fluctuate periodically. Marc André and Nicolas (2005) classified the costs as loss of monetary control, exchange rate misalignment, and sterilization costs. The cost of misleading information and the vehement International Monetary Fund (IMF) support programs for South Korea, Singapore, Thailand, and Indonesia in 1997 exposed the weakness of confidentiality argument purported for reserves accumulation. In reaction to this, Stiglitz (2002) blamed IMF for one-size-fit-all strategy that has not helped Indonesia despite the nation's reserves accumulation. Also, from evidence, the rejection of IMF's strategy by Malaysia made the country better-off compared to other affected Asian countries (Kaplan & Rodrik, 2001). However, the cushion strategy as ideologically promoted could not sustain Russia and Brazil (Stiglitz, 2002), as billions of dollars were used by IMF as intervention strategy.

Edwards (1985) empirically identifies the insignificance of the holding cost which might have resulted from poor measurement procedure. Aluko (2007) observed that external reserves have, in recent times, played significant role in the Nigeria economy. It has increased the level of money supply and therefore impact positively on the level of economic activities as more funds became available for investment in productive activities. Employment was in turn generated, output increased and consumption boosted. With their multiplier effects on the economy coupled with the efficient management of the financial resources, standard of living of the people improved considerably. Also, the contribution of the manufacturing sector to Gross Domestic Product (GDP), which has continued to dim, witnessed a boost. In a related study (Obaseki, 2007) noted that the uses of external reserves cannot be over emphasized. Essentially, external obligations have to be settled in external exchange. Therefore, the stocks of reserves become important as a source of financing external imbalances. Other uses to which external reserves can be put are to intervene in the external exchange market, guide against unforeseen volatility and maintain natural wealth for future generations.

Hoarding international reserves is among the few options allowing developing countries to reduce the output costs of sudden stops and is seen as part of the management of an adjustable-peg or managed-floating exchange rate regime (Frenkel, 1983 & Edwards, 1983). The standard approach for measuring international reserves takes into account the international reserve assets of the monetary authority; however, the foreign currency and the securities held by

the public including the banks and corporate bodies are not accounted for in the definition of official holdings of international reserves.

2.1.2.2 Rationale for Holding Reserves

Global official reserves have increased significantly and quite rapidly in recent years. This phenomenal growth is a reflection of the enormous importance countries attach to holding an adequate level of international reserves. According to Okororie (2008), the reasons for holding reserves aside for Liquidity, Security, Diversification, Reserve adequacy include the following:

i.   To safeguard the value of the Domestic Currency: Foreign reserves are held as formal backing for the domestic currency. This use of reserves was at its height under the gold standard, and survived after the Second World War under the Breton woods system. After the Breton Woods system, the use of foreign exchange reserves to back and provide confidence in domestic currency replaced the gold. Nevertheless, for most developed countries this is not, these days, the prime use of reserves.

ii.   Timely meeting of international payment obligations: The need to finance international trade gives rise to demand for liquid reserves that can readily be used to settle trade obligations, for example to pay for imports. While this is typically done through commercial banks, in many developing countries, including Nigeria, the central bank actually provides the foreign exchange through auction sessions at which authorised dealers buy foreign exchange on behalf of importers. In industrialized countries where the manufacturing sector produces for export markets, the transaction need for holding reserves is less important.

iii. Wealth Accumulation: Some central banks use the external reserve portfolio as a store of value to accumulate excess wealth for future consumption purposes. Such central banks would segregate the reserve portfolio into a liquidity tranche and a wealth tranche, with the latter including longer-term securities such as bonds and equities and managed against a different benchmark emphasizing return maximization.

iv.   Intervention by the Monetary Authority: Foreign exchange reserves can be used to manage the exchange rate, in addition to enabling an orderly absorption of international

money and capital flows. The monetary authorities attempt to control the money supply as well as achieve a balance between demand for and supply of foreign exchange through intervention (i.e. offering to buy or sell foreign currency to banks) in the foreign exchange markets. When CBN sells foreign exchange to commercial banks, its level of reserves declines by the amount of the sale while the domestic money supply (in naira) also declines by the naira equivalent of the sale. Conversely, when the CBN purchases foreign exchange from the banks its level of reserves increases while it credits the accounts of the banks with the naira equivalent, thus increasing the domestic money supply.

v. To boost a Country's Credit Worthiness: External reserves provide a cushion at a time when access to the international capital market is difficult or not possible. A respectable level of international reserves improves a country's credit worthiness and reputation by enabling a regular servicing of the external debt thereby avoiding the payment of penalty and charges. Furthermore, a country's usable foreign exchange reserve is an important variable in the country risk models used by credit rating agencies and international financial institutions.

vi. To provide a fall back for the "Rainy Day": Economies of nations sometimes experience drop in revenue and would need to fall back on their savings as a life line. A good external reserves position would readily provide this cushion and facilitate the recovery of such economies.

vii. To provide a buffer against external shocks: External shocks refer to events that suddenly throw a country's external position into disequilibrium. These may include terms of trade shocks or unforeseen emergencies and natural disasters. An adequate external reserve position helps a country to adjust quickly to such shocks without recourse to costly external financing.

2.1.2.3 Foreign (Exchange) External Reserves

The foreign exchange reserves of Sub Saharan African countries have been inefficiently managed for international investment and transactions. Hence, numerous policy initiatives and measures are put in place for management of its external reserves. Although very little was achieved because the structure in place then could not support efficient reserves management,

enduring lessons could be distilled from the African nation's past experience. In Nigeria for instance since the 1970s, the Nigerian economy has persistently depended on oil as the main source of foreign exchange earnings with the attendant cycles of economic booms and bursts. The major source of South African foreign exchange earnings has been Mining and Manufacturing which contributed well of 45% of the country's foreign earnings. These earning in international transactions require a robust external reserves which were the reasons why African nations maintain an efficient foreign reserve to cushion the negative effect of external trade in the sub Saharan African countries. The foreign (external) reserves have grown and swing over time in African economies. For instance, looking at developing economies like Nigerian and South Africa external reserves in the last ten to twelve month, the swinging of the reserves are conspicuously shown in figures 2.1 and 2.2.

According to Financial Times (2017), the Nigerian Foreign exchange reserves rose to USD30.80 billion by April 26, their highest level since September of 2015, from USD30.31 billion a month ago. The increase could be attributed to a recent rise in crude oil prices and proceeds of latest Eurobond issued last month. The reserves grew 18.1 percent since the start of the year but are still far off their peak of USD64 billion, reached in August of 2008. Foreign Exchange Reserves in Nigeria averaged 10595.83 USD Million from 1960 until 2017, reaching an all time high of 62081.86 USD Million in September of 2008 and a record low of 63.22 USD Million in June of 1968 (Financial Times, 2017).

NIGERIA FOREIGN EXCHANGE RESERVES

SOURCE: WWW.TRADINGECONOMICS.COM | CENTRAL BANK OF NIGERIA

Figure 2.1:   *The Nigerian External Reserve from July 2016 to April 2017*

In South Africa, the Gross gold and foreign exchange reserves in South Africa rose slightly to 46.69 USD billion in April of 2017 from 46.59 USD billion in March. The increase in the gross reserves reflected an increase in the US dollar gold price. Foreign exchange reserves declined slightly as the valuation gains from the depreciation of the US dollar against major currencies was more than offset by foreign exchange payment made on behalf of the government and an increase in the foreign exchange swaps conducted for liquidity management purposes. Foreign Exchange Reserves in South Africa averaged 27720.54 USD Million from 1998 until 2016, reaching an all time high of 51889.00 USD Million in February of 2012 and a record low of 5316.00 USD Million in September of 1998.

SOUTH AFRICA FOREIGN EXCHANGE RESERVES

SOURCE: WWW.TRADINGECONOMICS.COM | SOUTH AFRICAN RESERVE BANK
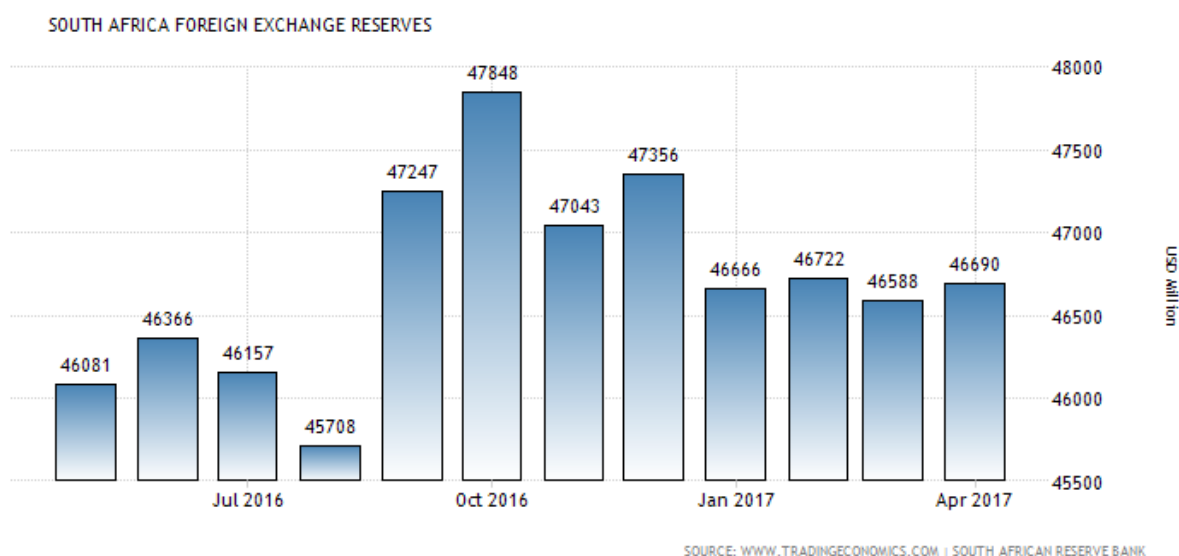
Figure 2.2:   *The South African External Reserve from July 2016 to April 2017*

The external reserves of African countries in 2015/2016 as shown in table 1 showed that the external reserves of African countries has been poor and unfit for international transaction as a result of exchange rate fluctuation which may instigate high inflation rate in Africa.

Table 2.1: External reserves of Sub-Saharan African Countries 2015/2016 ($'Million)

Countries	External Reserves
Swaziland	548
Burundi	136
Togo	574
Liberia	523

17

Guinea-Bissau	332
Cape Verde	495
Sierra Leone	621
Equitorial Guinea	1,205
Guinea	234
Malawi	693
Chad	383
Benin	732
Rwanda	1,030
Niger	1,039
Algeria	121,900
Burkina Faso	260
Mali	624
Libya	70,990
Republic of Congo	2,244
Democratic republic of Congo	1,216
Gabon	1,878
Uganda	2,909
Senegal	2,012
Cameroun	2,714
Mozambique	2,582
Gambia	84
Zimbabwe	339
Mauritius	4,498
Ivory Coast	4,716
Nigeria (as at 8th March 2017)	30,000
Tanzania	4,073
Ethiopia	3,113
Capua New Guinea	1,738
Ghana	5,885
Angola	24,080
Sudan	174
Egypt	19,040
Morocco	23,927
South Africa	46,770
South Sudan	230
Namibia	1,690
Zambia	2,968
Tunisia	6,714
Kenya	7,548

Source: World Fact Book, 2017

From the table 2.1, it was observed that Gambia had the worst external reserve with $84 Million dollars as reserves, followed by $132Million reserves of Burundi. However, countries like Algeria, Libya, South Africa and Nigeria had the biggest external reserves in Africa with $121.900Billion, $70.990Billion, $46.770Billion and $30Billion respectively. The overall presentation showed that African countries have poor external reserves to cushion the effect of adverse international transactions.

2.1.2.4   Sources of External Reserves

Nigeria's external reserves are derived mainly from the proceeds of crude oil production and sales. Nigeria produces approximately 2,000,000 barrels per day of crude oil in joint venture with some international oil companies, notably Shell, Mobil and Chevron. Out of this, Nigeria sells a predetermined proportion directly, while the joint venture partners sell the rest. The joint venture partners pay Petroleum Profit Tax to the Federal Government through the Federal Board of Inland Revenue.

The five categories of revenues from crude oil production and sales are:

- Direct Sales (NNPC)
- Petroleum Profit Tax (Oil Companies)
- Royalties
- Penalty for Gas Flaring
- Rentals

Other sources of external reserves revenues in Nigeria include:

- Income from Investing foreign reserves
- Repatriation of unutilized Wholesale Dutch Auction System (WDAS)
- Interest on WDAS Accounts held by Deposit Money Banks
- WDAS Purchases
- Inward Money Transfer
- Value Added Tax (VAT)
- Education Tax
- Commission, Etc.

In South Africa, the external reserves are sourced from sales of bond and all manner of debt instrument from the public and international market (Reserve Bank, 2017).

2.1.2.5   Composition of External Reserves

The Central Bank of Nigeria Act 1991 vests the custody and management of the country's external reserves in the Central Bank of Nigeria (CBN). The Act provides that the CBN shall at all times maintain a reserve of external assets consisting of all or any of the following:

a)   Gold (coin or bullion) Reserves: Gold is precious Metal, which is significant because of its widespread use as money. Gold reserves are gold owned and effectively controlled by the monetary authority e.g. gold bars in the vault of central banks.

b)   Convertible Currencies: Balance at any bank outside Nigeria where the currency is freely convertible and in such currency, notes, coins, money at call and any bill of exchange bearing at least two valid and authorized signatures and having a maturity not exceeding ninety days exclusive of grace;

c)   Treasury bills having a maturity not exceeding one year issued by the government of any country outside Nigeria whose currency is convertible;

d)   Securities of or guarantees by a government of any country outside Nigeria whose currency is freely convertible and the securities shall mature in a period not exceeding ten years from the date of acquisition;

e)   Securities of or guarantees by international financial institutions of which Nigeria is a member, if such securities are expressed in currency freely convertible and maturity of the securities shall not exceed five years;

f)   Gold Tranche (Reserve Tranche): Nigeria's gold tranche at the International Monetary Fund;

g)   IMF special drawing rights (SDR): Allocation of Special Drawing Rights made to Nigeria by the International Monetary Fund (IMF).

2.1.2.6   Ownership Structure of External Reserves

In Nigeria: Nigeria's external reserves comprise of three components namely, the federation, the federal government and the Central Bank of Nigeria portions. The Federation component

consists of sterilized funds (unmonetized) held in the excess crude and PPT/Royalty accounts at the CBN belonging to the three tiers of government. This portion has not yet been monetized for sharing by the federating units. It is sometimes referred to as the reserves of the country. The Federal Government component consists of funds belonging to some government agencies such as the NNPC; for financing its Joint Venture expenses, PHCN and Ministry of Defence; for Letters of Credit opened on their behalf, etc. The CBN portion consists of funds that have been monetized and shared. This arises as the Bank receives foreign exchange inflows from crude oil sales and other oil revenues on behalf of the government. Such proceeds are purchased by the Bank and the Naira equivalent credited to the federation account and shared, each month, in accordance with the constitution and the existing revenue sharing formula. The monetized foreign exchange thus belongs to the CBN. It is from this portion of the reserves that the Bank conducts its monetary policy and defends the value of the Naira (Okororie, 2008).

In South Africa: The ownership structure of South Africa cut across the government to individuals. The structure of shareholding in the Bank has however not been amended since its inception and it is a juristic person in terms of its own Act. The South African Reserve Bank and seven other central banks (Belgium, Greece, Italy, Japan, Switzerland, Turkey and US) have shareholders other than the governments of their respective countries. The Reserve Bank is privately owned, with 2 million issued shares. The only limitation on shareholding is that no single shareholder may own more than 10,000 shares individually. Currently there are more than 660 shareholders owning shares in the South African Reserve Bank. Shareholders are entitled to a dividend of not more than 10 South African cents per share per annum (the total maximum dividend is therefore 200,000 South African Rand or a maximum of 1,000 South African Rand for any individual shareholder), with the remaining profits being paid to the South African government.

2.1.2.7 Uses of Reserve

One of the key challenges for Nigeria over the last eight years, especially under a civilian administration was how to manage the phenomenal growth in foreign exchange reserves resulting from the sustained high international oil prices.

Broadly speaking, there are four main options to which the reserves could be used:

   i.   Accumulate reserves in the short to medium term

ii.   Pay off foreign debt and

iii.   Set-up a Fund for the Future: The selection and mix of the options was done within the context of the national economic reform agenda. Specifically, Nigeria's external reserves are deployed to two major categories of uses, namely; public and private sector uses.

Other uses which include Public Sector uses include;

i.   Debt Relief Deal like Paris Club - USD12.4 billion, London Club - USD0.5 billion

ii.   Annual Debt service payments (now mainly Multilateral Institutions)

iii.   WDAS sales in respect of States and other Government agencies

iv.   Joint Venture Cash call payments

v.   Infrastructural development (Power, Railway/Roads)

vi.   Contributions and subventions (International Organizations & Nigerian Embassies and High Commissions)

vii.   Other public sector uses (Estacodes, Government LCs).

viii.   Defence against domestic emergencies or disasters.

ix.   As buffers against external shocks e.g. fall in oil prices.

x.   To generate confidence in a national currency and maintain its credit worthiness.

xi.   Used for making foreign investment.

2.1.2.8   External Reserves Management Strategies

This is a conscious effort by government to achieve an optimal reserve position for the country such that all present, expected or emergency call on reserve is met without necessarily resorting to external borrowing. Because external reserve is used as an index value for measuring and comparing the economic net-worth of nations, there is always the compelling reason to manage it judiciously (Okororie, 2008). The main policy measures of external reserves management are;

I.   Trade and exchange control,

II.   Portfolio or currency diversification,

III.   Administrative control,

IV.   Foreign exchange budgeting,

V.   Exchange rate policies

In Nigeria, the Nigerian External Reserve Management Strategy team manages the external reserves while the South African Reserve Bank's (Bank) manages the external reserves with Official Gold and Foreign Exchange Reserves Management Investment Policy (Investment Policy) providing a strategic framework that guides the Financial Markets Department (FMD) and the Reserves Management Committee (Resmanco) in their respective roles in the reserves management process. The Investment Policy specifies, among other things, the aggregate tolerance parameters of the Bank and the eligible asset classes, which are implemented through the Strategic Asset Allocation (SAA). The SAA determines the optimal asset allocation, while recognizing the risk tolerance and liquidity constraints of the Bank. It sets the tranche sizes, currency composition; appropriate asset classes and calculates the expected risk and return over the relevant time horizon. These parameters are specified at tranche level. Hence, each tranche has its own asset mix aimed at achieving the investment objectives of the tranche (SARB, 2017).

2.1.2.9   Challenges of Managing External Reserves

The following were the challenges faced in the management of External Reserves;

1. **Volatility of Foreign Exchange Inflow:** Nigeria's dependence on oil for over 90% of its foreign exchange earnings makes its capital account vulnerable to the fluctuations in crude oil prices. This, in addition to its high import bills contributed to the fluctuations in the level of reserves over the years and consequently the way the reserves are being managed. During the oil boom of the mid-seventies which has resulted in the build-up of reserves, the external reserves were diversified into an array of financial instruments including foreign government bonds and treasury bills, foreign government guaranteed securities, special drawing rights (SDRs), fixed term deposits, call accounts and current accounts. This provided significant investment income as well as liquidity. However, during the glut in the global oil market which led to collapse in the crude oil prices and consequently a drawdown in the reserves, the reserves were held mainly in current accounts and treasury bills. This underscored the need to diversify the sources of foreign exchange inflow of the country.

2. **Fiscal Federalism:** Sections 162(1) and 162 (3) of the Constitution of the Federal Republic of Nigeria made it mandatory for all revenues accruing to the nation to be paid into the Federation account and to be distributed among the Federating units in

accordance with the existing revenue allocation formula. The implication of this constitutional provision is that each tier of government has the right to spend its own share of the revenue and when this happens, in view of the limited instruments for sterilization, the Bank has to sell more dollars in order to mop up the excess liquidity.

3. **Developments of Productive Non-oil Economy exploit:** Nigeria should invest heavily in infrastructural development in order to create the enabling environment for a non-oil economy. In this regard, the provision of steady power and water supplies as well as good road and communication net works is very crucial. It is also important for Nigeria to explore ways of reviving its huge agricultural potential which has been neglected since the discovery of oil in addition to exploiting its rich untapped solid mineral deposit in order to promote diversification of the economy away from a mono cultural product base.

4. **Natural Challenges**: Oil is a wasting asset and would be exhausted some day, this poses a very big challenge to reserves management in Nigeria as to what would become of the economy when this single most important source of national revenue is fully depleted.

5. **Training and Retention of Staff**: Reserve Management task is becoming more complex as central banks are moving into new asset classes with higher risk/return profile in search of higher risk adjusted returns. In the case of CBN, we are moving from the hitherto investment in money market instruments such as time-deposits; treasury bills etc into longer dated instruments like treasury and agency bonds (having explicit guarantee of a sovereign government). Although these are default-free instruments, they however have market risk. This development has necessitated the need for highly skilled personnel who could measure and control the associated risks. Although the Bank is making efforts to develop capacity in reserves management, the challenge is how to retain these staff in view of the high demand for their skills in the private sector (Okororie, 2008).

Table 2.2:   **Annual External Reserves of Nigeria and South Africa: 1986-2016 in US Dollars ($')**

Year	Nigerian External Reserves	South African External Reserves
1986	-388,000,000	2,254,162,464
1987	-4,000,000	3,462,962,832
1988	506,000,000	2,203,670,974
1989	-1,181,000,000	2,194,854,116
1990	-2,301,000,000	2,582,983,162
1991	-565,000,000	3,186,551,429

1992	3,773,000,000	3,207,728,532
1993	-617,000,000	2,879,214,933
1994	1,700,000,000	3,294,868,537
1995	1,400,000,000	4,463,556,744
1996	4,100,000,000	2,341,014,437
1997	7,600,000,000	5,957,312,958
1998	7,100,000,000	5,508,053,978
1999	5,500,000,000	7,496,680,029
2000	9,900,000,000	7,702,061,615
2001	10,400,000,000	7,626,856,966
2002	7,700,000,000	7,816,784,147
2003	7,500,000,000	8,154,088,985
2004	14,710,000,000	14,886,244,244
2005	28,280,000,000	20,624,461,669
2006	42,970,000,000	25,593,361,010
2007	51,330,000,000	32,919,404,063
2008	60,120,000,000	34,070,371,702
2009	44,760,000,000	39,602,673,636
2010	43,360,000,000	43,819,537,260
2011	35,210,000,000	48,748,267,722
2012	46,410,000,000	50,688,078,607
2013	47,700,000,000	49,708,176,471
2014	36,900,000,000	49,121,577,906
2015	28,760,000,000	45,887,064,632
2016	27,000,000,000	47,180,123,831

Source*: World Bank data 2016; World Data Atlas 2017, Central Bank of Nigeria, 2016; Knoema 2017; Index Mundi 2017.*

From table 2.2, the Nigerian external reserves were in negative until 1988 when the external reserves was US$ 506,000,000 before also returning to negative signed external reserve till 1992 when a sharp positive external reserve was recorded to the tune of US$ 3,773,000,000. In 1993, the external reserve became negative again to US$ -617,000,000 and from 1994 till the end of the period the Nigerian external reserves didn't experience negative reserves. However, the reserves rise and fall intermittently over time and the highest reserves ever recorded was US$ 60.120 Billion in 2008. While in South Africa, their external reserves started on a positive sign in 1984 but fell sharply in 1985 to US$ 1,897,240,194 from US$ 2,510,957,183 in 1984 before rising continuously to 1987. After which a fall in reserves was experienced in 1988 and further

fall in reserves continued to 1989 before an increase in reserves was shown in 1990 to 1992. In 1993, the South African reserves fell from US$ 3,207,728,532 in 1992 to US$ 2,879,214,933 in 1993 and increase afterward in 1994 and 1995 to US$ 3,294,868,537 and US$ 4,463,556,744 respectively before falling again in 1996 to US$ 2,341,014,437. However, the external reserves of South Africa continue to rise from 1997 to 2012 with minor sharp fall in reserves in 1998 and 2001. From 2013 till 2015, the external reserves fell continuously from US$ 49,708,176,471 in 2013 to US$ 45,887,064,632. The highest external reserve recorded by South Africa was US$ 50.688 Billion in 2012.

2.1.3   Exchange Rate

The exchange systems over the last few years have experienced many ups and downs at the international level and have affected the economic structures of developing countries. Different exchange systems show how exchange rate is determined in an economy. Exchange rate over the years, especially after the collapse of the fixed exchange rate system (the Bretton Woods system) has had many fluctuations (Ehsani et al., 2009). The term exchange rate is viewed as the total unit of a nations' currency that can acquire the unit of another nation's currency. Exchange rate can be called the conversion factor that determines the rate of change of currencies. It plays a significant factor in a nation that engages in international trade and its impact is reflected on the economic performance of a nation. The relationship between exchange rate and economic growth has been an important subject in economics.

Exchange rate can be real and nominal; and the difference is domiciled in the presence and absence of inflation influence. Excluding inflation influence then it is real exchange rate and if inflation influence is added then it is nominal exchange rate. The nominal exchange rate can be expressed in bilateral and multilateral term. Real exchange rate volatility means the short term fluctuation of the real exchange rate. Different pattern of exchange rate behavior into categories is known as exchange rate regime. A regime in which exchange rate remains fixed is called fix exchange rate regime and in which exchange rate fluctuates is known as floating exchange rate regime. The middle of fix and floating exchange rate is called managed float regime (Ahmad, Ahmad & Ali, 2013; Uddin, Rhaman & Quaosor, 2014).

The Nominal Exchange Rate (NER) can be expressed in bilateral or multilateral term. A bilateral exchange rate refers to the exchange rate of one currency, say the Kenya shilling, in terms of another, say, the US dollar (Copeland, 1989). On the other hand, a multilateral exchange rate also referred to as the Nominal Effective Exchange Rate (NEER).It is the rate of one currency against a weighted composite basket of that country trading partner currencies. The movements in the multilateral exchanges rates represented by NEERs rather than those of the bilateral exchange rates are the focus of this study (Musyoki, Pokhariyal & Pundo, 2012).

The real exchange rate which is a measure of the competitiveness of an economy in international trade, depreciated in most developed economies at least in the last two decades, but appreciation of the real exchange rate was the common case in the developing economies. Hence, overvaluation of the real exchange rates of most developing countries, especially in sub-Sahara Africa, was the case in the 1980s and 1990s. This contributed to their poor performance on the balance of payments (Ghura and Grennes, 1993). This deficiency in the exchange rate also triggered the financial burden of settling external debt as depreciated African currencies to the dollar makes it nearly impossible to settle external debt.

According to Klein and Shambaugh (2010), exchange rates and the choice of the exchange rate regime retain a centre stage in the environment of emerging economies (Rose, 2011; Ghosh et al. 2014). Uddin, Rhaman and Quaosor (2014) posit that economists believe that poorly managed exchange rates can be disastrous for economic growth.
Dollar (1992) and Benaroya and Janci (1999) stated that the relative undervaluation of the Asian currencies compared with those in Latin America and Africa explained the higher growth in Asian region. Hausmann et al. (2005) showed that real exchange rate depreciation is one of the factors associated with the growth acceleration. Aghion et al. (2009) revealed that real exchange rate volatility can have a significant impact on productivity growth. However, the effect depends critically on a country's level of financial development. The results appear robust to time window, alternative measures of financial development and exchange rate volatility, and outliers. They also offer a simple monetary growth model in which real exchange rate uncertainty exacerbates the negative investment effects of domestic credit market constraints. Eichengreen

(2008) states that a more depreciated real exchange rate together with weak exchange rate volatility favours growth process. Rodrik (2008) and Berg and Miao (2010) further stated that not only are overvaluations bad but undervaluation is good for growth, particularly in developing countries.

2.1.3.1   Exchange Rate Regime and it Management in Nigeria

Exchange rate management in Nigeria can be traced back to the enactment of Exchange Control Act of 1962 but the activities requiring foreign exchange was prevalence and earned by private sector operators. Foreign exchange dealings were held in their banks overseas which then acted as agents for local exporters. These were mainly foreigners doing business in Nigeria. During, Period, Agricultural exports contributed the buck of foreign exchange receipts.

By then the currency, Nigerian Pound, was tied to the British Pound with ease of convertibility. But this caused delayed in the development of active exchange market. However, with the establishment of the Central Bank of Nigeria (CBN) in 1958, there was centralization of foreign exchange authorities in the CBN. Then there came a need to develop a local foreign exchange market.

Following sharp increases in the price of crude oil the 1970s, there was boom in foreign exchange. A lot of imports were done through Inward Bill for Collection (IBCs) whereby imports were made with acceptance bills of 90 days and above. These bills were paid in local currency but are to be remitted in foreign currencies.

By 1981 crisis over the un-remitted bills developed necessitating the need to control the nation's foreign exchange. It was not until 1982 that comprehensive exchange controls were introduced. In 1986 Structural Adjustment Programme (SAP) was introduced. Second-Tier Foreign Exchange Market (SFEM) was introduced with dual exchange rates. Government businesses were done at N22 per/ US $ while others were at market determined rates. In 1995 Autonomous Foreign Exchange Market (AFEM) was introduced for sale of foreign exchange to end users by the CBN through authorized dealers (commercial banks) at market based exchange rates. In 1999, Inter-Bank Foreign Exchange Market (IFEM) came in. in 2006 Dutch Auction System (DAS) was introduced. According to Fapetu and Oloyede (2014), the Nigerian Central Bank has implemented different techniques in the management of exchange rate since the introduction of SAP in 1986. Under SAP the exchange rate strategy was to float the naira and establish an institutional framework for its trading in a market determined environment. The table 2.3a,

display the various exchange rate regime and events in Nigeria as they have played out since 1959 till 2016.

Table 2.3a: Exchange rate techniques in Nigeria since 1959 to 2016

S/N	Year	Event	Remark
1	1959 –1967	Fixed Parity Solely with the British Pound Sterling	Suspended in 1972
2	1968 –1972	Included the US dollar in the parity exchange	Aftermath of the 1967 devaluation of the pound and the emergence of a strong dollar
3	1973	Revert to fixed parity with the British Pounds	Devaluation of the US dollar
4	1974	Parity to both pounds and dollars	To minimize the effect of devaluation of the individual currency
5	1978	Trade (import) –Weighted basket of currency approach.	Tied to seven currencies; British Pounds, US Dollars, German Mark, French Franc, Japanese Yen, Dutch Guilder, Swiss Franc
6	1985	Reference on the dollar	To prevent arbitrage prevalent in the basket of currencies
7	1986	Adoption of the second tier foreign exchange market	Deregulation of the economy
8	1987	Merger of the first and second tier markets	Merger of rates
9	1988	Introduction of the interbank foreign exchange market	Merger between the autonomous and the FEM rates
10	1994	Fixed Exchange rate	Regulate the economy
11	1995	Introduction of the AFEM	Guided deregulation
12	1999	Re-introduction of the inter-bank foreign exchange market (IFEM).	Merger of dual exchange rate, following the abolition of the official exchange rate from January 1st
13	2002	Re-introduction of the DAS	Retail DAS was implemented at first instance with CBN selling to end-users through the authorized dealers (banks)
14	2006 -2016	Introduction of Wholesale DAS	Further liberalized the market

2.1.3.2   Exchange Rate Regime and it Management in South Africa

Exchange controls in South Africa have been in place since the outbreak of the Second World War when they were introduced as a part of the Emergency Finance Regulations of the United Kingdom and other members of the Sterling Area. The objective was to retain the free movement of funds between these countries, but to prevent hard currencies from flowing out of the Sterling Area. The Sterling Area exchange controls were gradually removed after the war. Following the Sharpeville incident in March 1960, there was a large-scale capital outflow from South Africa and foreign exchange controls were subsequently intensified. From June 1961 to February 1976, the South African authorities strictly controlled the purchase of foreign exchange by non-residents. For example, non-residents could only purchase foreign exchange with the proceeds from selling securities on the Johannesburg Stock Exchange when given permission by the South African authorities. When per-mission was denied, the funds were designated as the "blocked rand." Blocked rands could not be directly transferred between non-residents, but could be used to buy quoted South African securities and long-term government bonds. The securities could then be transferred to London and sold, generally at a discount. The discount emerged due to the combination of a lack of demand for South African securities by non-residents and an upward pressure on the security prices on the Johannesburg Stock Exchange related to exchange controls on residents. At the maturity of the government bonds, the proceeds could be freely transferred overseas at the commercial rate as long as they had been held for at least five years. In February 1976, the government introduced the "securities rand", which took the place of the blocked rand and could be transferred between non-residents without the need of government approval. From March 1978, however, the proceeds of government bonds could no longer be transferred overseas at the commercial rate. Instead, both the purchases and sales of government bonds were now to be made in the securities rand. However, interest payments on these securities were still paid in the commercial rand, thus diminishing the incentive of non-residents to invest in such securities (Eun, Kili & Lai, 2012). Major changes in the exchange rate management in South Africa took place from 1961.

Table 2.3b: Exchange rate techniques in South Africa since 1961 to 2016

S/N	Year	Event	Remark
1	Feb, 1961-Sept, 1971	South African pound was replaced by the South African rand	Due to termination of South Africa's membership of the British Commonwealth and of the Sterling Area
2	Aug, 1971-May, 1972	Rand was pegged to the dollar	collapse of the Bretton Woods System
3	June, 1972 – Sept, 1972	Rand was linked to sterling	Devaluation of the Rand against the dollar by 12.28% following the currency realignments brought about by the Smithsonian Agreement
4	Oct, 1972-May, 1973	Rand was re-pegged to the dollar	
5	June 1973- May, 1974	Rand was revalued against the dollar by about 5%	Due to devaluation of the dollar by 10% in February
6	June, 1974-1978	Introduced a policy of independently managed floating	For maintenance of a fixed rand-dollar rate adjusting every few week
7	1978	Re-establishment of fixed dollar peg	Abandonment of managed floating.
8	Jan,1979 – Feb, 1983	First implementation of dual exchange rate regime	Replacement of security Rand with financial Rand
9	Feb, 1983	single exchange rate system	Abolishment of the use of the financial rand
10	Sept, 1985 -March 1995	Second implementation of dual exchange rate regime	Financial rand mechanism was re-introduced due to South Africa Debt standstill.
11	2000-2016	Adoption of a freely floating exchange rate regime	This was done in line with inflation-targeting monetary policy framework

Source: *Researcher compilation from Eun, Kili and Lai, 2012 and South African Reserve Bank*

The recent global financial crisis in 2007 and the subsequent collapse in global trade flows, decline in economic performance and increase in global financial market volatility (especially risk perception towards emerging markets like South Africa) had a major impact on the South African currency. The REER declined from 90.78 at the beginning of 2007 to 77.55 in 2008Q4 before regaining about 30% to recover and reach a level of 106.76 in 2010Q2. The real effective exchange rate depreciated gradually from 2010 to end 2014 at 81.20. Such developments, especially the extent of the weakness in the nominal exchange rate, raised concerns again about whether such movements reflect South Africa's economic fundamentals

and the currency was correctly priced or this signified a misalignment in the exchange rate. Against this background, it is also worthy to note that the country faces a current account deficit that has been increasing over the years, a decline in the manufacturing sector's contribution to GDP, an improving terms of trade position and a higher increase in imports as a percentage of GDP as compared to exports (table 4). All these factors are likely to help explain the developments in the real effective exchange rate over time (Khomo & Aziakpono, 2016).

Table 2.4: Historical data of selected economic indicators

Averages of quarterly data				
	1985-1992	**1993-2001**	**2002-2006**	**2007-2016**
REER (Index: 2010=100)	99.77	97.12	90.87	89.10
NEER (Index: 2010=100)	294.19	170.00	112.60	88.52
USD/ZAR	2.46	5.17	7.53	8.38
GDP growth	0.36	3.02	4.63	2.30
Terms of trade (including gold)	72.51	71.50	79.05	96.68
Exports to GDP	26.08	24.40	27.96	30.71
Imports to GDP	19.68	22.12	27.14	31.44
Gold price (USD)	379.95	330.00	426.49	1209.96
RSA 10 yr. bond yield	16.21	14.48	9.33	8.37
Government debt to GDP	31.41	45.43	34.66	35.01
Manufacturing to GDP	16.79	15.95	15.50	14.50
Current account deficit to GDP	2.72	-0.45	-2.05	-4.18
CPI	15.08	7.19	5.20	6.70

Data source: South African Reserve Bank

Table 2.5:   **Annual Exchange Rate: ($'million)**

Year	Nigerian Exchange Rate to Dollar	South African Exchange Rate to Dollar
1986	2.0206	104.3
1987	4.0179	117.7
1988	4.5367	111.2
1989	7.3916	111.6
1990	8.0378	114.7
1991	9.9095	119.4
1992	17.2984	123.4
1993	22.0511	121.1
1994	21.9	115.9
1995	70.4	112.7
1996	69.8	103.7
1997	71.8	109.5
1998	76.8	100.6

1999	92.3	95.1
2000	101.7	92.1
2001	111.9	81.3
2002	121.0	69.4
2003	129.4	90.2
2004	133.5	97.6
2005	132.15	98.90
2006	128.65	94.90
2007	125.83	89.30
2008	118.53	79.40
2009	148.90	86.60
2010	149.74	100.00
2011	153.85	97.90
2012	157.50	92.60
2013	157.31	82.80
2014	158.55	77.60
2015	196.49	77.20
2016	253.5	71.5

Source: *World Bank data 2016; World Data Atlas 2017, Central Bank of Nigeria, 2016; Knoema 2017; Index Mundi 2017.*

The Nigerian currency exchange rate to dollar started strongly in 1986 to the dollar at 2.0206 to US$ 1 but fell over time drastically to 22.0511 to US$ 1 dollar in 1993 and it fell further from 1995 to the end of the period of study to 196.49 to US$ 1 dollar. While the South African currency in exchange rate to dollar started poorly but over time appreciated and grew to become stronger to the dollar by the end of the period of study in 2015. In 1986 the South African currency exchange rate to US$1 was 104.3, by 2000 the currency has appreciated that the currency to US$ 1 was 92.1. By 2015, the South African currency exchange rate to US$1 dollar became 77.20. Thus, over the period of study Nigerian currency exchange rate to the dollar fell drastically while the South African currency exchange rate appreciated within the same period.

2.1.4 External Debt

In international economics relations, external debt is the term that describes the financial obligation that ties ones party (debtor country) to another (lender country). It usually refers to incurred debt that is payable in currencies other than that of the debtor country. In principle, external debt includes short-term debts, such as trade debts which mature between one and two

years or whose payment would be settled within a fiscal year in which the transaction is conducted.

External debt may be incurred through a number of transactions such as trade, contract or finance, supplies credit, private investment and public borrowing. Source of loan that make up external debt include banks, international financial market (euro money and capital markets) international organization e.g. IMF and the World Bank international loans and multilateral private loans (Adepoju, Salau, & Obayelu, 2007).

Foreign loans are organized international credit negotiated between two countries, on terms acceptable to them in today's world, the lender countries are usually the advanced industrialized countries of Europe, Asia (Japan) and North America while the borrowing countries are the poor under developed countries of the thirds word in Africa, Asia and Latin America; from the stand point of the latter, foreign loans are ostensibly for development purposes or to facilitate industrial progress,or for improving the quality and quantity of food production. The ultimate objective is to increase the standard of living of the generality of the people (Nwoke, 1990).

2.1.4.1 External Debt in an Economy

The issue of external borrowing as a policy to promote economic growth creates serious debate among economists and policy makers. The main concern is whether or not external borrowing leads to economic growth in debtor countries. The term external debt is different from public debt. Public debt is a wider concept that embraces external debt as defined above plus domestic debts, which are owed by the government of a country to residents of that country. External debt can therefore be seen as the foreign exchange component of public debt (Okororie, 2008).

External debt is that part of total debt a country owes to creditors outside the country. Such debts can emanate from trade transactions, contractor–finance, supplier credits and public borrowing (Onoh 2007).According to Siddique, Selvanathan and Selvanathan (2015), external debt is an important source of finance mainly used to supplement the domestic sources of funds for supporting development and other needs of a country. Usually external debt is incurred by a country which suffers from shortages of domestic savings and foreign exchange needed to

achieve its developmental and other national objectives. The contractual liabilities are denominated in foreign currencies and would be repaid as such. External debt arises mainly out of the need by countries to finance consumption, developmental programs, as well as for balance of payments support. However, if the external debt is not used in income-generating and productive activities, the ability of a debtor nation to repay the debt is significantly reduced. It is often argued that the excessive debt constitutes an obstacle to sustainable economic growth and poverty reduction (Berensmann, 2004; and Maghyereh & Hashemite, 2003). Kalonji further explained that heavy external debt is the cause of poverty in the debtors' country while Chongo (2013) noted that public debt is a double edged sword. However, Gohar et al. (2012) believes that countries take debt from the external sources for many reasons when their income is low with budget deficit or they are having low investments. In addition, Soludo (2003) asserted that countries borrow for two broad categories; macroeconomic reasons or to finance the transitory balance of payments deficits aimed at boosting economic growth and reduce poverty.

Benedict et al. (2003) suggested that foreign borrowing has a positive impact on investment and growth of a country up to a threshold level but external debt service can potentially affect the growth as most of the funds will go in the repayment of the debt rather at the investments. Furthermore, Fosu (2009) found out that debt servicing shifts spending away from the social sector, health and education. This is shown that the aim of taking debt is behind to seek development than being depressed by debt service payments because it cuts up most of the resources rather than development. As a result creates a great hindrance in the economic growth of a country due to high interest payments on the external debt, heavy public expenditures and foreign exchange to repay that debt. Mweni (2015) state that countries may have heavy external debt along with relatively higher level of exports that can help them to sustain their level of external debt, but external debt, if not sustainable, imposes higher risk to the economic prosperity, as its servicing which is also an indicator of higher current account deficit, may lead to debt overhang in a country (Ali & Mustafa, 2009).Reinhart & Rogoff (2009) showed that external debt has a negative impact on economic growth and financial stability, while Nersisyan and Wray (2010) showed that excessive sovereign debt does not necessarily hurt growth.

External debts in African countries have been on the increasing trend. Virtually all the economies of the sub Saharan African countries operate high external debt to foster economic direction and growth. The table 6 shows the rate of external debt in African countries in Dollars for 2016.

Table 2.6: External Debt of Sub-Saharan African Countries in 2016

Countries	External Debt	Per capita US $	% of GDP
Swaziland	470,500,000	360	14
Gambia	541,800,000	260	61
Central African Republic	686,900,000	130	39
Burundi	705,200,000	59	26
Togo	1,173,000,000	150	26
Liberia	1,111,000,000	230	51
Guinea-Bissau	1,095,000,000	570	94
Lesotho	948,800,000	430	53
Cape Verde	1,660,000,000	3,100	99
Sierra Leone	1,561,000,000	230	36
Equitorial Guinea	1,364,000,000	1,500	12
Djibouti	1,339,000,000	1,500	71
Guinea	1,332,000,000	100	20
Malawi	1,921,000,000	100	35
Chad	1,875,000,000	130	18
Botswana	1,685,400,000	720	12
Benin	2,340,000,000	200	26
Rwanda	2,442,000,000	200	29
Niger	2,729,000,000	130	36
Algeria	3,139,000,000	80	2
Burkina Faso	3,092,000,000	160	26
Madagascar	4,007,000,000	160	41
Mali	3,626,000,000	200	26
Mauritania	3,585,000,000	840	76
Libya	3,531,000,000	550	9
Republic of Congo	4,817,000,000	996	55
Democratic republic of Congo	5,331,000,000	65	13
Gabon	5,158,000,000	2,900	35
Bolivia	6,340,800,000	600	19
Uganda	6,241,000,000	150	24
Senegal	6,186,000,000	390	42
Cameroun	7,375,000,000	300	24
Mozambique	9,554,000,000	320	79
Gambia	9,270,000,000	540	45
Zimbabwe	10,900,000,000	671	77

Mauritius	10,890,000,000	8,500	93
Ivory Coast	10,028,100,000	420	28
Nigeria	11,406,300,000	60	3
Tanzania	15,890,000,000	280	34
Ethopia	22,490,000,000	220	32
Capua New Guinea	22,040,000,000	2,800	111
Ghana	21,170,000,000	700	50
Angola	37,700,000,000	1,400	41
Sudan	45,000,000,000	1,100	47
Egypt	67,322,600,000	700	38
Morocco	48,211,500,000	1,400	44
South Africa	142,833,000,000	2,600	48

Source: World Fact Book 2017

From table 2.6, South Africa has the highest amount of external debt of $142.8Billion which 48% of its GDP as at 2016, while Nigeria has $11.4Billion external debt which is 3% of its GDP. Other African countries like Morocco, Eqypt, Sudan and Angola have external debt of $48.2Billion, $67.3Billion, $45Billion and $37.7Billion which represents 44%, 38%, 47%, and 41% GDP respectively for the five countries. The country with the least external debt is Swaziland with $0.470Billion which represents 14% of its GDP. Thus, African emerging economies are highly involved in the international debt structure to finance their development agenda and build economic growth. External debts can be classified as private non-guaranteed debt and public guaranteed debts.

2.1.4.2 Public Sector External Debt

The public Sector (guaranteed) debts can be classified as either private or official debts. Examples of official debts are those from multilateral and bilateral sources while examples of private debts are debts outstanding between banks and international bondholders, etcetera.

2.1.4.3 Private Sector External Debt

According to IMF Balance of Payment Manual 5th Edition, Gross private sector external debt, at any given time, is the outstanding amount of those current, and not contingent, liabilities that require payment(s) of interest and/or principal by the debtor at some point(s) in the future and that are owed to non-residents by private residents of an economy.

2.1.4.4 The Emergence and Structure of Nigeria's External debt

The origin of Nigeria's external debts dates back to 1958 when a sum of US $28 million was contracted for railway construction. Between 1958 and 1977, the level of foreign debt was minimal, as debt contracted during the period were the confessionals debts from bilateral and multilateral sources with longer repayment periods and lower interest rates constituting about78.5 percent of the total debt stock. From 1978, following the collapse of oil prices, which exerted considerable pressure on government finances, it became necessary to borrow for balance of payments support and project financing. This led to the promulgation of Decree No.30 of 1978 limiting the external loans the federal Government could raise to 5 Billion Naira.

The first major borrowing of US$ 1 billion referred to as jumbo loan was contracted from the international capital market (ICM) in 1978 increasing the total debt to US $2.2billion.Thereafter, the spate of borrowing increased with the entry of state governments into external loan contractual obligations. While the share of loans from bilateral and multilateral sources decline substantially borrowing from private sources also increased considerably. Thus by 1982, the total external debt stock was US$ 13.1 billion.Nigeria's inability to settle her import bills resulted in the accumulation of trade areas amounting to US 9.8 billion, between 1983 and 1988. The insured and uninsured components were US $2.4 and US$ 7.4 billion respectively. A reconciliation exercise which took place between 1983 and 1988 with London and Paris club reduced amount to US$ 3.8 billion with an accrued interest of US$ 1.0 billion bringing the total to US $ 4.8 in 1998.The external debts rose further to US $ 33.1 billion in 1990 but declare to US $ 27.5 billion in 1991 and increased steadily to US $32.6 billion at end of Dec. 1995. The total debt outstanding at the end of 1999 was US $ 28.0 billion with Paris club constituting the highest source with a share of 73.2 percent in 1999 prior to the canvass made for debt cancellation.

Nigeria's total external debt stock, as at December 2000, is estimated by the Nigerian government at about $ 28.3 Billion it includes arrears amounting to $ 14.7 Billion and late interest of over US$ 5Billion. In 2004, the Nigerian external debt had increased to US$ 39.9 billion before the debt pardon of 2006 that facilitated the sharp fall in Nigerian debt to US$ 9.5Billion in 2006 but the debt rose again in 2007 to US$ 12Billion. And the Nigerian external debt rose continuously till 2014 to $20.93 billion (31 December 2014) from $18.67 billion in 2013 (31 December 2013). The debt fell a bit in 2015 to US$ 10.7Billion.The bulk of Nigeria's

debt was incurred at non confessional terms during the late 1970s and early 1980s, during a period of significantly low interest rate regime when the London inter Bank offered Rate (LIBOR) hovered between 3 and 4%. The debt grew rapidly through the eighties due to accumulation of debt service arrears and escalation of market interest rate.

LIBOR peaked at 13% in mid 1989. As a result, the pre-1984 debt of most developing countries, Nigeria inclusive quadrupled by 1990. The collapse in oil price compounded by poor economic policies, bad management and in-favorable loan terms, made it externally difficult to service the mounting external debt obligation, particularly those due to the Paris club. Hence despite the rescheduling in 1986, 1989 and 1991 arrears continue to amount, which further worsened the debt problem. Some progress was made however in restricting the commercial debts, and Nigeria has continued to service that category of debt as at when due.

The trend of the external debts highlights the fact that much of the country's external debt is owed to fifteen creditor countries belonging to the Paris club, as a percentage of the total external debt, Nigeria's indebtedness to this group rose almost consistently from about 30% in 1983 to about 80% in 2001. This huge external debt constitutes a major impediment to the revitalization of its shattered economy as well as the alleviation of debilitating poverty (Adepoju, Salau, & Obayelu, 2007).

2.1.4.2   External Debt Management

External debt is the phenomenon used to describe the financial obligation that ties one party (debtor country) to another (lender country) (Ojo & Sulaiman, 2012). External debt management is a strategy design to ensure that the debt stocks does not grow to an extent that the country can no longer conveniently service her debts and also that the terms are not enslaving. In other words, it is a mechanism where a nation's debt stock and the servicing arrangement (terms of loan) do not cause severe problems for the economy and society. According to the Central Bank of Nigeria Statistical Bulletin (2012), external debt management involves an assessment of the country's capacity to service existing debts and a judgment on the desirability of contracting further loans. Therefore, External debt management in this work means a mechanism used by the responsible authority (Debt Management Board) to ensure that external debt does not affect its country in terms of investment, saving and capital generation which are the basis for economic growth and development, but should be bearable and/or productive.

External Debt Management in Nigeria

In the face of the declining trend in world oil prices, Nigerian government has been facing difficulties in financing deficit budgets and developmental projects. This led to borrowing from external sources such as World Bank, International Monetary Fund (IMF) and Paris club amongst others. Management of the external debt became major responsibility of CBN in 1980. The responsibility of managing external debt among other issues led to the establishment of other departments in the Central Bank of Nigeria (CBN) to undertake the functions in collaboration with the Federal Ministry of Finance (FMF) and other relevant agencies. For instance, the management of Nigeria's external debt has been a major macroeconomic problem especially since the early 1980s to late 2000s. For many years now, the country's debt has been growing in spite of the efforts being made by the government to manage and minimize its crushing effects on the nation's economy (Ogunlana, 2013). Despite the strategic role of the external sector on the overall performance of the Nigerian and other African economies, past analysis of developments in the sector had been largely aggregative and devoid of in-depth empirical analysis (Akinlo & Yinusa, 2007).

Since 1980s, Nigeria has devised several debt management policies in order to make the debt–service burden bearable and avoid defaulting (Iyoha, 2000). The embargo on loans policy was placed in 1984 and 2016 to state governments from borrowing externally. The cordial objective of the policy was to check the escalation of the debt stock and to minimize the problem of additional debt burden. Prior to the 1984 policy, the Federal Government fixed the maximum level of debt commitment for both the federal and state governments. For example, an upper limit of $ 5 billion was for the federal government in 1978 and in 1982 while $200 million for the state government. The embargo was lifted in January 1989 (Lucas, 1988). In February 1988, comprehensive guidelines were introduced with the aim of evolving strategies for increasing foreign exchange earnings and consequently reducing the need for foreign borrowing. Various measures were undertaken to ensure implementation of the guidelines such as; embargo on new loans, limit on debt service payments, debt restructuring and debt conversion programme.

Debt restructuring policy involves the reduction in the burden of an existing debt through refinancing, rescheduling, and buy-back insurance of collateralized bonds and provision of new money. A refinancing arrangement means the procurement of a loan by a debtor to pay off an existing debt, particularly short term-trade debt so as to ease the debt burden. It should be noted

that the first refinancing arrangement by Nigeria was made in July 1983, followed by second arrangements in September of the same year. In both agreements, $2.1 billion worth of trade arrears was refinanced. The rescheduling of debt involved changing maturing, tenure and terms of debt structure. For instance in 1986, debt worth $1.6 billion due to London club and payable in 1987 was rescheduled to extend to 1996 with four years grace period. Furthermore, the payback arrangement which implied the offer of a substantial discount to pay off existing debts was concluded on 21st January, 1982 when Nigeria bought 6.2% ($3.395 billion) commercial debt owed to the London club at 60% discount.

Debt conversion programme was made to complement other strategies of debt management. In Nigeria, debt conversion exercise involved the sale of an external debt instrument for a domestic debt or equity participation in domestic enterprises. The debt conversion committee was set up in July 1988 to implement Nigeria's debt conversion programme. Though the appropriation of the substantial discount offered and commission paid, the nation benefited and reduced its debt stock. As a result of the strenuous effort being made by Nigeria government to formalize its economic and political relations, the prospects for an early rescheduling of Nigerian's official debts are bright especially as the international community reposes with some measures of confidence in Nigeria. In 2005/2006, Nigeria's external debt which stood at US $32 billion was forgiven by the creditors. This has external and internal implications for the economy (Ijirshar, Joseph & Godoo, 2016). On external front, Nigeria's credit worthiness increased, thereby, making the economy worthy to access short and medium term credits which enhance net capital inflows necessary for employment and growth. In the domestic economy, potential new export earnings and gains from new investment as well as the money budgeted for debt servicing are expected to be channeled into growth enhancing projects- as this result to rises in investment, employment and output (Adam, 2007). External debt service on the other hand, reduces public investment funds, employment and private income. It also reduces the country's currency and compound balance of payment problems. In view of these, several policies were introduced to reduce the magnitude of public debt, ameliorate the debt service burden in order to stimulate sustained growth in the Nigerian economy. But, Henry observed that these policies have not been able to restrain the growth of foreign debt (Henry, 2006).

According to Adepoju (2007), the debt management strategies and measures varied from time since the early 1980s when the external debt became obvious. According to him, the following measures were used as guidelines to external borrowings:

i. Economic sector should have positive Internal Rate of Return (IRR) as high as the cost of borrowing i.e. interest.

ii. External loans for private and public sector projects with the shortest rate of return should be sourced from the international capital market while loans for social services or infrastructure could be sourced from concessional financial institutions.

iii. State government, parastatals, private sector borrowing receive adequate approval from the federal government so as to ensure that the borrowing conforms to the national objectives.

iv. Projects to be financed with external loan should be supported with feasibility studies which include loan acquisition, deployment and retirement schedules.

v. State governments and other agencies with borrowed funds should service their debts through the foreign exchange market and duly inform the Federal Ministry of Finance for record purposes. Any default will attract deduction at source before the release of statutory allocations.

vi. Private sector industries that are export-oriented are expected to service their debt from their export earnings while others should utilize the foreign Exchange Market facilities for debt servicing.

However, the federal government adopted different strategies from time to time to curb the debt problems of Nigeria. Such strategies are:

i. During the 80s, the federal government placed an embargo on new loans and issued directives to state government to restrict external borrowing to the barest minimum. The embargo was to check escalation of total debt stock and minimize additional debt burden.

ii. Limit on debt service payments: This required setting aside a portion of export earnings to allow for internal development.

iii. Debt restructuring: This involved the reduction in the burden of an existing debt through refinancing, rescheduling, buy back, debt funding and provision of new money.

iv. In the year 2000, the federal government established a semi-autonomous debt management office under the presidency (Uzoma & Kalu, 2015).

Major Causes of Nigeria External Debt Burden

(i)   Persistent high budget deficits have compelled government to borrow to finance the gap.

(ii)   Problems of mis-match in the use of short and medium-term loans to finance long terms projects with the result that a good number of the projects were hardly completed before amortization was due, thus aggravating the debt service problem,

(iii)   As a developing country characterized by low productive base, the supply of goods and services is augmented with imports. The problem is further compounded by the country's penchant for imported goods. The inability to settle import bills led to the rapid build-up of trade arrears in the early 1980s,

(iv)   The over-dependence on oil revenue as the major foreign exchange inflow have resulted to high-degree vulnerability to external shocks,

(v)   Devaluation of the naira in 1986 subsequently fuelled inflation and increased repayment burden of external debt,

(vi)   Inability of the country to meet IMF conditionality for loan forced her to obtain same from international capital market at higher costs. This increased the burden of repayment,

(vii)   There is also the problem of rise in interest rates on commercial loans previously contracted at floating rates of interest,

(viii) Another cause of external debt problems was that some project-tied loans were contracted without consideration for economic viability because foreign lenders were too eager to lend, as the country was considered under-borrowed in the late 1970s and early 1980s. Many of the projects were white-elephant projects.

(ix)   Political instability in the country, which resulted to frequent changes in government and policies, discouraged foreign private investment, which could have gone a long way to boost economic growth.

(x)   Natural disasters, such as erosion, desert encroachment, drought etc; have also exacerbated the debt problem. Apart from reducing the level of export, these disasters have equally led to increased food import bills for the country which have to be paid for in hard currency.

(xi)   There is also the twin problem of corruption and mismanagement in the handling of foreign loans.

(xii)   Apart from indiscriminate and excessive importation, there were proven cases of over-invoicing of imports, non-shipment of goods for which letters of credit bas been established as well as under-invoicing of exports, which diminished foreign exchange inflow (Okororie, 2008).

External Debt Management in South Africa

Upon attainment of independence after the first democratic elections in 1994, the new democratic South African government inherited an economy with fiscal and other macroeconomic balances. These were as a result of the weak economic growth that resulted from low investment and lack of investor confidence that contributed to lower revenue collection in the country, prior to the elections. Furthermore, political tension, combined with domestic and international recession at that time meant that the government could not introduce expenditure cuts, which necessitated high borrowing to meet the expenditures respectively.

However, the new democratic government through its Growth, Employment and Redistribution (GEAR) strategy, aimed to reduce the conventional budget deficit/GDP ratio to below 3% per year, compared to the 7% level at independence. Specifically, the government reversed some of the increases in expenditure as a percentage of GDP, while improved growth and better tax administration also resulted in revenue growth. Continued fiscal discipline thus resulted in a small budget surplus a decade later in 2006 and 2007. National treasury debt management serve as the agency that manages South African debt structure.

Table 2.7: **Annual External Debt:** ($'0)

Year	Nig ExtDebt	SA ExtDebt
1986	22,215,776,300	0
1987	29,024,888,800	0
1988	29,624,121,300	0
1989	30,121,971,700	0
1990	33,458,311,200	0
1991	33,527,007,200	0
1992	28,979,073,000	0
1993	30,699,253,800	0
1994	33,092,286,500	21,671,000,000
1995	34,094,440,000	25,357,998,100
1996	31,414,750,000	26,050,000,000
1997	28,467,510,000	30,071,801,900
1998	30,313,711,600	24,778,637,300
1999	29,095,542,800	24,536,864,800

2000	32,374,085,600	25,435,195,400
2001	31,418,236,900	24,603,875,300
2002	31,780,096,000	33,719,580,000
2003	36,711,575,600	37,138,450,000
2004	39,898,100,000	43,181,220,000
2005	25,754,638,300	44,736,850,000
2006	9,516,236,000	59,381,330,000
2007	12,029,630,000	72,596,570,000
2008	13,027,758,100	69,960,360,000
2009	15,859,313,600	79,017,430,000
2010	15,416,330,000	108,392,000,000
2011	17,416,330,000	116,929,000,000
2012	18,810,320,000	144,959,000,000
2013	21,615,716,400	139,245,000,000
2014	26,858,200,000	144,006,000,000
2015	10,700,000,000.0	123,186,000,000
2016	11,400,000,000	129,700,000,000

Source: NIG: World Bank data bank & CBN, 2016, SA: World Data Atlas & Statistics South Africa, 2016. Translations from local currencies were through Index mundi, 2016; Knoema, 2016

From table 2.7, the external debt of Nigeria proves to appreciate continuously from the beginning of the period of study in 1986 as $22.215 Billion to 1991 as $33.523 Billion before a sharp fall in debt. Since then a highly volatile zigzag movement between the least of $9 billion external debt in 2006 to $39 billion external debt in 2004 have been experience in the external sector till 2015. This shows that the Nigerian external sector has been immersed in debt from the beginning of the period to the end of the period. However, the South African external debt started in 1994 after the presidency of Nelson Mandella came into power in a democratic setting. The external debt before then was zero (0) and the external debt however had a high upsurge that within 3 years the debt increased from $21 Billion in 1994 to $30 Billion dollars in 1998. There was a sharp fall in the external debt but the last 12 years of the period of study was full of jumping external debt that at merely $37 Billion in 2003, the South African external debt became $123 Billion in 2015. The highest South African external debt was experienced in 2012 at $144.9 Billion external debt. This showed that the South Africa economy was involved in external sector debt that can affect the function of external reserves, discourage FDI and increase exchange rate drastically for possible loss of value to the dollar. This indicates that the economy interplay to the external transactions in debt values. Hence, these indices have grown over the

period in South Africa, while in Nigeria; it has managed to be curtailed to a certain fraction and level. It is our interest in this study to examine how these external debt growths have impacted on the economic growth of emerging African economies (World Bank Data Atlas, 2017).

2.1.5 Foreign Direct Investment

Foreign Direct Investment (FDI) is the process where people in one country obtain ownership of assets for the purpose of gaining control over the production, distribution and other activities of a firm in a foreign country (Moosa, 2002). The OECD Benchmark Definition of Foreign Direct Investment (OECD, 1996) defines FDI as "the objective of obtaining a lasting interest by a resident entity in one economy (direct investor) in an entity resident in an economy other than that of the investor (direct investment enterprise)".

2.1.5.1 Types of Foreign Direct Investments

There are three types of Foreign Direct Investments, namely:

Horizontal Foreign Direct Investment: arises when a firm duplicates its home country-based activities at the same value chain stage in a host country through FDI.

Platform Foreign Direct Investment: Foreign direct investment from a source country into a destination country for the purpose of exporting to a third country.

Vertical Foreign Direct Investment: takes place when a firm through FDI moves upstream or downstream in different value chains i.e., when firms perform value-adding activities stage by stage in a vertical fashion in a host country (Okororie, 2008).

2.1.5.2 Significance of Foreign Direct Investments

According to International Monetary Fund (1999), the significance of Foreign Direct investments include:

i. It is an important source of private external finance for developing countries. It is different from other major types of external private capital flows in that it is motivated largely by the investors' long-term prospects for making profits in production activities that they directly control. Foreign bank lending and portfolio investment, in contrast, are not invested in activities controlled by banks or portfolio investors, which are often motivated by short-term profit considerations that can be influenced by a variety of factors (interest rates, for example) and are prone to herd behavior.

ii. It is also a means of transferring production technology, skills, innovative capacity, and organizational and managerial practices between locations, as well as of accessing international marketing networks.

iii. It brings about improved economic growth due to the influx of capital and increased tax revenues for the host country.

iv. Private Foreign Direct Investments are risk free to the host country and contributes to foreign exchange earnings, employment creation and increases in incomes, especially of skilled and semi-skilled workers in its various industries.

v. Foreign Direct Investments will help improve the quality of products and processes in a particular sector, increased attempts to better human resources.

2.1.5.3 Foreign Direct Investment in an Economy

Foreign direct investment occur when foreigners either wholly or jointly with local investors establishes physical presence in another country through acquisition of physical assets such as factories, buildings, plants and machinery etcetera. In other words, the foreign entity usually establishes a branch operational base or by establishing subsidiary relationships. The lasting interest reflects the continuation of a long-term relationship between the direct investor and the enterprise and a considerable level of influence on the management of the enterprise. The terms "influence" or "control" and "long-term" are used to make a distinction between FDI and portfolio investment because the latter is a short-term investment where the investor does not seek to control the firm. The influence over management decisions and productivity is also the part that differentiates FDI from other types of international investments. This influence implies for instance, that the investor has an ability to elect members on the board of directors of the foreign firm or subsidiary (Moosa, 2002).

These developments have given rise to the concept of the multinational enterprise. By definition, a multinational enterprise is one with investment and sales in two or more countries. Examples of multinational companies include: IBM, Microsoft, Pfizer, Shell Petroleum etc (Okororie, 2008).

The late 1970s and 1980s were characterized with low economic activities which prompted the need to source for funds to augment the financial gaps in African countries. Countries borrowed heavily from the international money and capital market to finance their

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economic activities. They also provide policies to attract foreign (capital flows) investment and funds into their economies. According to Nkoro and Furo (2012), foreign capital flows is described as consisting of the movement of financial resources from one country to another; not minding the direction which could be either ways. Additionally, large capital inflows have inundated African countries over the past few years, which also create vulnerabilities in their domestic economy. This influx of capital inflows appreciated the dollar against the African currencies, thereby undermining exports and imports positions. On the other hand, sizable capital inflows also brought excess liquidity into the African domestic economy. Faiattract to channel these capital inflows to productive sectors also triggered a surge in speculative activity and, subsequently, the formation of asset price bubbles.

In the light of this, the International Monetary Fund (IMF) gives both financial assistance and policy advice to countries that have experienced chronic balance of payments problem (Korsu, 2007).

According to Umoh, Jacob and Chukwu (2012), recent studies have shown that Foreign Direct Investment (FDI) is what is needed to bridge that savings-investments gap that exists in Africa in general andNigeria in particular. Prior to the 1970s, Foreign Direct Investment (FDI) was not seen as an instrument of economic development. The perception of FDI as parasitic and retarding the development of domestic industries for export promotion had engendered hostility to multi-national companies and their direct investments in many countries. However, the consensus now is that FDI is an engine of growth as it provides the much needed capital for investment, increases competition in the host country industries and aids local firms to become more productive by adopting more efficient technologies or by investing in human and/or physical capital. Foreign direct investments contribute to growth in a substantial manner because it is more stable than other forms of capital flows (Ajayi, 2006). While the FDI-growth linkage is still ambiguous, most macroeconomic studies nevertheless support the notion of a positive role of FDI within particular economic conditions. There are three main channels through which FDI can bring about economic growth. The first is through the release it affords from the binding constraint of domestic savings. In this case, foreign direct investment augments domestic savings in the process of capital accumulation. Second, FDI is the main conduit through which technology spillovers lead to an increase in factor productivity and efficiency in the utilization of resources, which leads to growth. Third, FDI leads to increase in exports as a result of increased

capacity and competitiveness in domestic production. This linkage is often said to depend on another factor, called "absorptive capacity", which includes the level of human capital development, type of trade regimes and degree of openness (Ajayi, 2006; Borensztein et al, 1998).

Nigeria is one of the economics with great demand for goods and services and has attracted some FDI over the years. The amount of FDI inflow into the Nigeria has reached N258.4 billion in 2003 and it rose to N654.2 billion in 2005 (a 253%, increase). In 2014 and 2015 the FDI has increased to N738.2 billion but fell afterward to N602.1 billion respectively. The question that comes to mind is, do these FDIs and other external sector factors actually contribute to economic growth in developing economies in Africa (Nigeria and South Africa)? If FDI and the external sector variables actually contribute to growth, then the sustainability of FDI alongside the external sector variables is a worthwhile activity and a way of achieving its sustainability is by identifying the factors contributing to its growth with a view to ensuring its enhancement.

Most studies on FDI and Growth debate are country specific. Earlier studies (for instance Otepola, 2002; Akinola, 2004; Oyeyide, 2005) examine the contribution of FDI on growth and the channels through which it may be benefiting the economy. This study however, examines the contribution of FDI to economic growth and development. FDI can have spillover on all firms thereby boost the productivity of the entire economy. However, Boyd and Smith (1992) in their contrary view state that FDI affect resource allocation and growth negatively where there is price distortion, financial, trade and other forms of distortions existing prior to FDI injections.

Nunnenkamp and Spats (2003) however criticized the view that developing countries should draw on FDI to create economic development. They concluded that the growth impacts of FDI are ambiguous because of high aggregated FDI data. Carkovic and Levine (2002) also concluded in their econometric study on FDI and GDP growth that the exogenous component of FDI does not exert a robust, independent influence on growth. By disaggregating FDI and considering the compatibility of different types of FDI on economic conditions prevailing in the host country, the positive effects of FDI are doubtful. Host country and industry characteristics as well as interplay between both sets of characteristics determine the growth impact of FDI in developing nations.

Renewed research interest in FDI stems from the change of perspectives among policy makers from "hostility" to "conscious encouragement", especially among developing countries. FDI had been seen as "parasitic" and retarding the development of domestic industries for export promotion until recently (Egbo, 2010). However, Bende-Nabende and Ford(1998) submit that the wide externalities in respect of technology transfer, the development of human capital and the opening up of the economy to international forces, among other factors, have served to change the former image. Caves (1996) observed that the rationale for increased efforts to attract more FDI stems from the belief that FDI has several positive effects. Among these are productivity gains, technology transfers, introduction of new processes, managerial skills and know-how in the domestic market, employee training, international production networks, and access to markets.

FDI is also viewed as an important vehicle for the transfer of technology, contributing to growth in larger measure than domestic investment (Borensztein et al., 1998). Findlay (1978) postulates that FDI increases the rate of technical progress in the host country through a "contagion effect" from the more advanced technology, management practices, etc., used by foreign firms.

On the basis of these assertions governments have often provided special incentives to foreign firms to set up companies in their countries. Carkovic and Levine (2002) noted that the economic rationale for offering special incentives to attract FDI frequently derives from the belief that foreign investment produces externalities in the form of technology transfers and spillovers. Curiously, the empirical evidence of these benefits both at the firm level and at the national level remains ambiguous.

De Gregorio (2003), while contributing to the debate on the importance of FDI, notes that FDI may allow a country to bring in technologies and knowledge that are not readily available to domestic investors, and in this way increases productivity growth throughout the economy. FDI may also bring in expertise that the country does not possess, and foreign investors may have access to global markets. In fact, he found that increasing aggregate investment by 1 percentage point of GDP increased economic growth of Latin American countries by 0.1% to 0.2% a year, but increasing FDI by the same amount increased growth by approximately 0.6% a year during the period 1950–1985, thus indicating that FDI is three times more efficient than domestic investment. A lot of research interest has been shown on the relationship between FDI and

economic growth, although most of such work is not situated in Africa. The focus of the research work on FDI and economic growth can be broadly classified into two. First, FDI is considered to have direct impact on trade through which the growth process is assured (Markussen and Vernables, 1998). Second, FDI is assumed to augment domestic capital thereby stimulating the productivity of domestic investments (Borensztein et al., 1998; Driffield, 2001). These two arguments are in conformity with endogenous growth theories (Romer, 1990) and cross country models on industrialization (Chenery et al., 1986) in which both the quantity and quality of factors of production as well as the transformation of the production processes are ingredients in developing a competitive advantage.

Moreover, FDI has empirically been found to stimulate economic growth by a number of researchers (Borensztein et al., 1998; Glass & Saggi, 1998; Vu & Noy, 2009; Egbo, 2010; Umoh, Jacob & Chukwu, 2012; Adeleke, Olowe & Fasesin, 2014). Comparing the evidence of FDI impact on developed and developing countries, Blonigen and Wang (2005) argued that mixing wealthy and poor countries is inappropriate in FDI studies. They noted that the factors that affect FDI flows are different across the income groups. Interestingly, they find evidence of beneficial FDI only for developing countries and not for the developed ones, while they find the crowding-out effect of FDI on domestic investment to hold for the wealthy group of nations. This implies that foreign direct investment is an engine of economic growth.

However, other studies also argued that FDI has no impact on economic growth (Chenery & Stout, 1966; Adelegan, 2000; Ekpo, 1995; Carkovic & Levine, 2005). Using Chenery & Stout's two-gap model (Chenery & Stout, 1966), he concluded that FDI has a negative effect on economic development in Nigeria. Adelegan (2000) explored the Seemingly Unrelated Regression model (SUR) to examine the impact of FDI on economic growth in Nigeria and found out that FDI is pro-consumption, pro-import and negatively related to gross domestic investment. In another paper, Ekpo (1995) reported that political regime, real income per capita, inflation rate, world interest rate, credit rating and debt service were the key factors explaining the variability of FDI inflows into Nigeria. Carkovic and Levine (2005) argue that the positive results found in the empirical literature are due to biased estimation methodology. When they employed a different estimation techniques i.e. Arellano-Bond Generalized Moment of Methods (GMM), they found no robust relationship between FDI inflows and domestic growth. Alfaro et. al., (2003) affirmed that the contribution of FDI to growth depends on the sector of the economy

where the FDI operates. He claimed that FDI inflow to the primary sector tends to have a negative effect on growth, however, as for the service sector, the effect of FDI inflow is not so clear. Durharm (2004) for example, failed to establish a positive relationship between Foreign Direct Investment (FDI) and growth but instead suggests that the effects of Foreign Direct Investment (FDI) are contingents on the absorptive capability of host countries.

FDIs are governed by long-term considerations because these investments cannot be easily liquidated. Hence, factors like long-term political stability, government policy, industrial and economic prospects, etc., influence the FDI decision. The table 7 shows a flow of overall foreign direct investments in the emerging African economies under study over the review period:

Table 2.8: **Annual Foreign Direct Investment from 1986 to 2016:** (\$')

Year	Nigeria FDI ($)	South Africa FDI ($)
1986	193,214,908	-50,487,074
1987	610,552,091	-191,667,970
1988	378,667,098	158,437,159
1989	1,884,249,739	-201,208,431
1990	578,882,971	-75,722,412
1991	712,373,362	254,133,622
1992	896,641,282	3,358,018
1993	1,345,368,587	11,290,546
1994	1,959,219,858	374,410,441
1995	1,079,271,551	1,248,424,933
1996	1,593,459,222	816,389,274
1997	1,539,445,718	3,810,543,923
1998	1,051,326,217	550,338,596
1999	1,004,916,719	1,503,332,454
2000	1,140,137,660	968,831,356
2001	1,190,632,024	7,270,344,986
2002	1,874,042,130	1,479,804,589
2003	2,005,390,033	783,136,092
2004	1,874,033,035	701,422,008
2005	4,978,260,025.9	6,522,098,178
2006	4,897,810,000.0	623,291,744
2007	6,086,730,000.0	6,586,792,253
2008	8,248,640,000.0	9,885,001,293
2009	8,649,526,666.7	7,624,489,974
2010	6,098,960,000.0	3,693,271,715
2011	8,914,890,000.0	4,139,289,123

2012	7,127,380,000.0	4,626,029,122
2013	5,608,462,733.3	8,232,518,816
2014	4,693,828,631.9	5,791,659,020
2015	3,064,168,904.5	1,575,170,030
2016	4,448,732,916.7	2,250,190,584

Source: NIG: World Bank data bank & CBN, 2016, SA: World Data Atlas & Statistics South Africa, 2016. Translations from local currencies were through Index mundi, 2016

The table 2.8 shows growing trend in FDI from $193m in 1986 for Nigeria to $68.840m in 2008 before the onset of the effects of the global financial crisis on the Nigeria economy. In 2009, the global financial crisis affected the FDI into the Nigerian economy as FDI fell to US$ 61.2Billion before rising in 2010 to US$ 67.230Billion. The FDI continue to rise till 2015. Similarly for South Africa, from US$ -50Million in 1986, the figures grew to US$9,885Million in 2008 before the financial crisis and declined steadily before closing at $1,575.170m in 2015. This indicates that the economy interplay to the external shocks. Hence, these indices have grown over the period and it's our interest in this study to examine how these external factor growths have impacted on the economic growth of emerging African economies.

2.1.6 Trade Integration

The integration of countries into the world economy is often regarded as an important determinant of differences in income and growth across countries. Economic theory has identified the well-known channels through which trade can have an effect on growth. More specifically, trade is believed to promote the efficient allocation of resources, facilitate the diffusion of knowledge, foster technological progress, allow a country to realize economies of scale and scope; and encourage competition both in domestic and international markets that leads to an optimization of the production processes and to the development of new products (Koniger & Busse, 2012).

The ambition of African developing countries to integrate Africa and to develop the continent through import-substitution industrialization was a key feature for the provision of means to solidify trade integration with developed economies of the world.

Economic integration is an agreement among countries in a geographic region to reduce and ultimately remove tariff and non tariff barriers to the free flow of goods or services and factors of production among each others; any type of arrangement in which countries agree to coordinate

their trade, fiscal, and/or monetary policies are referred to as economic integration. Obviously, there are many different stages of integration.

a) Integration as an outcome – integration as something static; integration can be achieved when certain criteria are fulfilled

b) integration as a process – integration as a dynamic process; represented by stages of integration going from FTA to political integration

2.1.6.1 Levels of Trade Integration

There are five levels. Free trade area is the lowest extent of national integration, political union the greatest. Each level of integration incorporates the properties of those levels that precede it (Okororie, 2008).

1. Free Trade Area

a. Countries remove all barriers to trade among members, but each country determines its own barriers against nonmembers.

b. Policies differ greatly against nonmember countries from one country to another. Countries in a free trade area also establish a process to resolve trade disputes between members.

2. Customs Union

a. Countries remove all barriers to trade among members but erect a common trade policy against nonmembers.

b. Differs from a free trade area in that members treat all nonmembers similarly. Countries might also negotiate as a single entity with other supranational organizations such as the WTO.

3. Common Market

a. Countries remove all barriers to trade and the movement of labor and capital between themselves, but erect a common trade policy against nonmembers.

b. Adds the free movement of important factors of production such as people and cross-border investment requires cooperation in economic and labor policy, so is very difficult to attain.

4. Economic Union

a. Countries remove barriers to trade and the movement of labor and capital, erect a common trade policy against nonmembers, and coordinate their economic policies.

b. Requires members to harmonize their tax, monetary, and fiscal policies, create a common currency, and concede a certain amount of sovereignty to the supranational organization.

5. Political Union

a. Countries coordinate aspects of economic and political systems.

b. Members accept a common stance on economic and political policies regarding nonmember nations. Nations are allowed a degree of freedom in setting certain political and economic policies within their territories.

The Nigerian economic policy in the last two decades had one dominating theme. As an integral element of the Structural Adjustment Programme (SAP), trade openness was espoused on the argument that it enhances the welfare of consumers and reduces poverty as it offers wider platform for choice from among wider variety of quality goods and cheaper imports. There are fundamental reasons for this potential of welfare improvement. Nigeria's trade policy is at a crucial turning point. Historically, the country has had a very restrictive import regime that generated substantial transfers to domestic producers and strong anti-export bias. Nigeria, being fully integrated into the global economic system, is a member and signatory to many multilateral and regional trade agreements (such as ECOWAS, OPEC, etc.). The policy response of such economic partnership agreements on trade policy has been to remove trade barriers, reduce tariffs and embark on outward oriented trade policies which lead to economic growth. In its current policies, Nigeria identified deeper trade integration as a means to foster economic growth and alleviate poverty. Border tariffs are being reduced, trade regulations are under review, and ambitious modernization programs for customs services and port infrastructure have been launched (Okororie, 2008).

2.1.6.2   Trade Integration in an Economy

Sub-Saharan Africa's trade experienced a rapid expansion over the past 20 years. While cumulative nominal GDP growth for the region over 1995–2013 amounted to over 350 percent (in U.S. dollars), the equivalent increase for goods exports was even larger, at above 500 percent—over the same period, global trade expanded by more than 260 percent. The region's export-to-GDP ratio rose from 20.5 percent in 1995 to over 27.5 percent in 2013, with the import-to-GDP ratio also increasing, from 19 percent to 23 percent (IMF, 2016). In the process, the destination of sub-Saharan Africa's exports changed substantially: trade flows with advanced economies, which represented close to 90 percent of exports in 1995, slumped in the wake of the global crisis. Meanwhile, new trade partnerships were forged with emerging markets such as Brazil, China, and India. China is now the single most important trading partner of sub-Saharan

Africa (IMF 2012, 2014c). Moreover, the share of intraregional trade almost doubled, although from a very low base, to reach 3.5 percent of the region's GDP.

The idea that trade integration (openness) affects economic growth is not new in the literature. However, the nature of the effect is being seriously debated in the literature. Some empirical studies have identified a positive linkage between a country's rate of economic growth and its integration to international trade, while others have failed to demonstrate such linkage, (Jin, 2002; Sinha & Sinha, 1996). The crux of the differences in these results has been the differences in methodology as well as the way the integration variables were defined (Baldwin, 2002 and Ajayi, 2003). Primary attention has been given to the role of exports in economic performance with little attention paid to other growth promoting openness (integration) variables. In their paper, Cuadros, Orts and Alguacl (2001) employed a VAR model to examine the causal relationship between output level, inward Foreign Direct Investment (FDI) and trade in Argentina, Brazil and Mexico. They found that though FDI had significant impacts on growth, their results failed to find evidence in support of export led growth. They concluded that the fragility of their result may stem from the omission of other relevant mechanism through which openness can promote growth. Similarly, Goldberg and Klein (1999) had also opined that if capital flow is significant, focusing only on export as proxy for openness may be misleading. Using data from some Asian countries, Sinha and Sinha (2001) also reiterated that omitting import from trade openness measure creates a missing variable bias. Using data from imports and exports to capture openness, they found positive effects of openness on economic growth for some Asian countries.

A developing country like Nigeria is import dependent therefore its import effects on the growth process should not be ignored or assumed away without any empirical basis. Also, Nigeria has experimented with different exchange rate regimes, which might have implications for the trade-growth nexus. More importantly, with exception of Odusola and Akinlo (1995), little studies on the Nigerian economy examined the causal relationship between trade integration variables and economic growth. Rodiguez and Rodrik (1999) reported that there is little or no evidence that open trade policies contribute significantly to economic growth. Frankel and Romer (1999) estimated cross-country regression of income per person on international trade and country size by the instrumental variables method and compared the results to those obtained through the use of OLS. The point estimates suggested that the impact of trade was substantial.

Their conclusion was that raising the degree of openness by 1% increased income per capita by 1.5 to 2%. Trade integration (openness) trigger economic growth however, not in all perspectives. The table 9 presents the trade integration of Nigeria and South Africa.

Table 2.9: **Annual Trade Integration: (%$)**

Year	Nigerian Trade Integration	South African Trade Integration
1986	0.066	0.787
1987	0.117	0.625
1988	0.102	0.663
1989	0.095	0.646
1990	0.131	0.538
1991	0.137	0.501
1992	0.122	0.487
1993	0.099	0.487
1994	0.09	0.511
1995	0.074	0.497
1996	0.126	0.595
1997	0.127	0.621
1998	0.085	0.726
1999	0.088	0.751
2000	0.114	0.727
2001	0.109	0.872
2002	0.099	0.93
2003	0.088	0.632
2004	0.087	0.501
2005	0.116	0.485
2006	0.103	0.504
2007	0.153	0.517
2008	0.185	0.585
2009	0.129	0.578
2010	0.163	0.414
2011	0.205	0.402
2012	0.17	0.485
2013	0.158	0.489
2014	0.14	0.517
2015	0.098	0.605
2016	0.127	0.284

Source: NIG: World Bank data bank & CBN, 2016, SA: World Data Atlas & Statistics South Africa, 2016. Translations from local currencies were through Index mundi, 2016

The rate of trade integration in Nigeria has been very poor compared to the South African counterpart. The trade integration in Nigeria has been between 0.066 to 0.205 as the lowest and highest respectively. While the South African trade integration has been on the high side as the lowest was 0.402 and the highest being 0.930. This shows that South Africa has stronger trade integration compared to Nigeria.

2.2 Theoretical Framework

One of the most remarkable aspects of economic life currently is the manner with which all emerging economies increasingly find themselves as an intrinsic part of the global economy (Auerbach, 1996).

Many theoretical contributions are discussed on the subject matter of external sector, its variables and economic growth. According to Matlanyane (2015), different techniques have been employed in the modeling of the external sector arising from theoretical underpinnings, accounting systems and definition of variables. In the discussion of external sector theories, Pauly (2000) postulate that external sector should reflect trade flows, services flows, transfers as well as direct and portfolio capital flows. He was of the view that the discussion of the external sector should focus on the analysis of the disequilibrium in the sector and how it impacts on the economy. Exchange rate regime, openness of the economy, institutional arrangements and the degree of capital mobility are some of the important considerations in modeling the external sector.

The relevant theories of this study serve as a building block to this research work and the theories that will be discussed are; the growth theory-theory of comparative advantage , the Solow-growth model, international trade theory, dependency theory and theory of unequal exchange.

2.2.1 The Growth Theories

The growth theory is based on a production function with very specific properties. The new growth theories emerged from progress in economic dynamics and industrial organization which built on the static new trade models by putting them in dynamic contexts. By emphasizing dynamics, growth theories deal with the evolution of comparative advantage. Trade implications

of new growth theories are that trade and trade policy can influence the long run growth rate of a country.

The new growth theory found several ways to endogenize technological change in two approaches namely externalities (knowledge-spillover) also called "learning by doing" effects and the technological approach. These external economies of scale cause growth (Romer, 1986; Lucas, 1988).

The central mechanism through which a firm creates knowledge as a by-product of other activities is reflected in external economies of scale determined by the evolution of the specialization pattern. This knowledge flows directly to all other firms, where it increases the productivity level of the production factor that can be accumulated. The dynamic implications of these growth theories based on external economies of scale are that a country will build up knowledge or expertise in goods in which it specializes, therefore reinforcing its comparative advantage in these goods.

Trade and its policies can influence the specialization pattern and subsequently the long-term growth rate of an economy. Hence, opening up to trade (external sector) therefore influence the growth rate in these endogenous growth models. For instance, Rivera-Batiz and Romer (1991a, 1991b) identified three effects of trade on growth namely;

1. Redundancy effect: by eliminating duplication of innovation activities in different countries, trade increases the efficiency of investment and boost growth.
2. Integration effect: if the domestic economies sector is subjected to external economies of scale and spillovers are international in scope, trade can boost productivity by increasing the extent of the market.
3. Reallocation effect: opening to trade alters the equilibrium allocation of resources across sectors. The growth rate increases if the trading equilibrium involves more (less) resources in investments.

The redundancy and integration effect are essentially a shift in the efficiency of investment spending, while the reallocation effect reflects the amount of resources devoted to investments. Thus, the welfare and growth implications of trade are therefore dependent on the specialization pattern and on shifts in the efficiency of investment spending.

2.2.1.1 Solow Growth Model and External Debt

The Solow growth model is built on a closed economy framework, which makes use of labour and capital as its means of production. Under this scenario the implication of external debt on growth can be seen through its effect on the domestic savings which in turn is used as investment in a closed model. The general effect of external debt on the Solow growth model can be analyzed by looking at the individual effects of the debt overhang and debt crowding theories on the Solow growth model. According to the debt overhang hypothesis, the government in an attempt to amortize the accumulated debt will increase tax rate on the private sector (as means of transferring resources to the public sector). This will discourage private sector investment and also reduce government expenditure on infrastructure as the resources are used to pay up huge debt service payments instead of being put into good use. This will lead to a reduction in total (private and public) investment in the economy and a shift downward of both the investment and production function curves in Solow growth model. On the other hand, in the case of debt crowding out, in a bid to clear their outstanding debts, the government makes use of their revenue from export earnings and in some cases transfer resources including foreign aid and foreign exchange resources to service their forthcoming debt. Those countries which transfer revenue from export earnings which can be used in investment in the economy to avoid huge debt payments will discourage public investment. This in turn will decrease economic growth and will shift both the investment and production function curves in Solow growth model downward (Dereje, 2013).

2.2.2 The Theory of International Trade

The importance of international trade to a nation's economic welfare and development has been heavily discussed in the economics literature since Adam Smith's (1776) pioneering inquiry into the nature and causes of the wealth of nations. International trade theories generally pose three types of explanations for economists namely;

1. Explanations of trade flows between at least two nations.
2. The nature and extent of gains or losses to an economy.
3. The effects of trade policies on an economy.

Most theories of international trade are dedicated to the first explanation and attention will now turn to theoretical responses to such an issue in the form of: classical trade theory; factor proportion theory; and product life cycle theory.

i. Classical trade theory dictates that the extent to which a country exports and imports relates to its trading pattern with other nations. That is, countries are able to gain if each devotes resources to the generation of goods and services in which they have an economic advantage (Ricardo, 1817; Smith, 1776). Therefore, classical trade theory effectively describes the scenario where a country generates goods and services in which it has an advantage, for consumption indigenously, and subsequently exports the surplus. Consequently, it is sensible for countries to import those goods and services in which they have an economic disadvantage. Economic advantages/disadvantages may arise from country differences in factors such as resource endowments, labour, capital, technology or entrepreneurship. Thus, classical trade theory contends that the basis for international trade can be sourced to differences in production characteristics and resource endowments which are founded on domestic differences in natural and acquired economic advantages. However, over and above such a general insight into international trade, classical trade theory is unable to explain what causes differences in relative advantages.

ii. The factor proportion theory, in contrast to classical trade theory, provides an explanation for the differences in advantage exhibited by trading countries. According to this theory, countries will tend to generate and export goods and services that harness large amounts of abundant production factors that they possess, while they will import goods and services that require large amounts of production factors which may be relatively scarce (Hecksher & Ohlin, 1933). Therefore, this theory extends the concept of economic advantage by considering the endowment and costs of factors of production. However, both theories have been deficient in explaining more recent patterns of international trade. The product life cycle theory of international trade was found to be a useful framework for explaining and predicting international trade patterns as well as multinational enterprise expansion.

iii. The product life cycle theory suggested that a trade cycle emerges where a product is produced by a parent firm, then by its foreign subsidiaries and finally anywhere in the world where costs are at their lowest possible (Vernon, 1966, 1971; Wells, 1968, 1969). Furthermore, it explains how a product may emerge as a country's export and work through the life cycle to ultimately become an import. The essence of the international

product life cycle is that technological innovation and market expansion are critical issues in explaining patterns of international trade. That is, technology is a key factor in creating and developing new products, while market size and structure are influential in determining the extent and type of international trade.

An insight into various theories of international trade provides a basis for the evolution of the concept of balance of payments. The theories of international trade can be broadly classified into

  i.   Mercantilist view
  ii.   Classical theories of trade
  iii.   Modern theory of trade
  iv.   New Theories of trade.

2.2.2.1   Mercantilism

Mercantilism is a philosophy which arose from about 300 years ago. The base of this theory was the "commercial revolution", the transition from local economies to national economies, from feudalism to capitalism, from a rudimentary trade to a larger international trade. Mercantilism was the economic system of the major trading nations during the 16th, 17th, and 18th century, based on the premise that national wealth and power were best served by increasing exports and collecting precious metals in return. The monarch controlled everything. Their policy was to export in the countries that they controlled and not to import (to have a *positive Balance of Trade).*

Geographical discoveries not only stimulated the international trade, but also produced an affluent flow of gold and silver, which could be used to encourage the economy based on money and prices. The *state exercised much control over economic life*, chiefly through corporations and trading companies. Production was carefully regulated with the object of securing goods of high quality and low cost, thus enabling the nation to hold its place in foreign markets.

The theory states that the world only contained a fixed amount of wealth and that to increase a country wealth; one country had to take some wealth from another, either through having a higher import/export ratio. So, this tendency, to export more and import less and to receive in exchange gold (the deficit is paid in gold) is called MERCANTILISM. They also hold that the more gold and silver a nation had the richer and more powerful it becomes.Their objective of foreign trade was considered to be achievement of surplus in the balance of payments. Hence, they advocated achieving as high trade surplus as possible. In this context, Blaug (1978) points

out that – "The core of mercantilism, of course, is the doctrine that a favourable balance of trade is desirable because it is somehow productive of national prosperity. When mercantilist speak of the surplus in the balance of trade, they mean an excess of exports, both visible and invisible, over imports, calling either for an inflow of gold or for granting of credit to foreign countries.However, since all nations could not simultaneously have an export surplus and the amount of gold and silver was limited at any particular point in time, one nation could gain only at the expense of other nations.

The theory was highly criticized because of the predominance of more money being associated with fewer products, inflation and the presence of lower standard of living. They also had the following criticism;

    a. Adam Smith criticized mercantilists on the ground that the mercantilists falsely equated money with capital and the favourable balance of trade with the annual balance of income over consumption.

    b. Blaug (1978) critically points out that - "The idea that an export surplus is the index of economic welfare may be described as the basic fallacy that runs through the whole of the mercantilist literature.

    c. They viewed trade as a *zero sum game* whichwas challenged by Adam Smith and David Ricardo who demonstrated that trade was a *positive sum game* in which all trading nations can gain even if some benefit more than others.

2.2.2.2   Classical Theories of International Trade

It was the classical economists like Adam Smith, David Ricardo, Robert Torrens and John Stuart Mill, who explained these three issues through their theories which can be grouped under classical theories of international trade.

    1. **Absolute Cost Advantage Theory**

It was Adam Smith who emphasized the importance of free trade in increasing wealth of all trading nations. According to Adam Smith, mutually beneficial trade is based on the principle of *absolute advantage*. His theory is based on the assumptions that there are two countries, two commodities and one factor (labour) of production. Adam Smith's theory is based on labour theory of value, which asserts that labour is the only factor of production and that in a closed economy goods exchange for one another according to the relative amounts of labour they

embody. The principle of absolute cost advantage points that a country will specialize and export a commodity in which it has an absolute cost advantage.

2. **Comparative Cost Advantage Theory**

According to Ricardo, it is not the absolute but the comparative differences in costs that determine trade relations between two countries. The comparative cost theory was first systematically formulated by the English economist Ricardo (1817) in his book *Principles of Political Economy and Taxation* published. It was later refined by Mill, Marshall, Taussig and others. According to Ricardo (1817), differences in comparative costs form the basis of international trade. The law of comparative advantage indicates that each country will specialize in the production of those commodities in which it has the greatest comparative advantage or the least comparative disadvantage. Thus, a country will *export* those commodities in which its comparative advantage is the greatest and *import* those commodities in which its comparative disadvantage is the least.

Mainstream economic conceptions of comparative advantage neglect, therefore, the structural history shaping present exchange relationships as well as the dynamic and evolving efforts of industrialized countries to exercise relational control or power over the institutions and rules governing cross-national economic exchange (Baumgartner & Burns 1975). The creation of OPEC in the 1970s is arguably an example of a counter-hegemonic attempt by oil-producing developing states to assert some relational control to improve their terms of trade through unified action (Baumgartner & Burns 1975).

3. **Evaluation of the Comparative Cost Theory**

The comparative cost doctrine is not complete in itself. This has been greatly criticized by economists due to its unrealistic assumptions. Ohlin critically pointed out that the principle of comparative advantage is not applicable to international trade alone rather it is applicable to all trade. Furthermore, the theory does not explain why there are differences in costs.

Ricardo's theory of comparative advantage did not explain the ratios at which the two commodities would be exchanged for one another i.e. it does not indicate what the terms of trade are. Hence, Mill discussed this issue in detail in his theory of reciprocal demand. The term 'reciprocal demand' indicates a country's demand for one commodity in terms of the quantities of the other commodity which it is prepared to give up in exchange. Thus, it is the reciprocal

demand that determines the terms of trade which, in turn, determines the relative share of each country.

2.2.2.3 Modern Theory of International Trade

The modern theory of International trade also known as known as Heckscher – Ohlin theory was propounded in 1919 by Hecksher and developed further in 1933 by Ohlin. The Heckscher – Ohlin theory is based on most of the assumptions of the classical theories of international trade and leads to the development of two important theorems – (a) Heckscher – Ohlin theory and (b) Factor price equalization theories.

Heckscher and Ohlin explained the basis of international trade in terms of factor endowments. They hold that regions or countries have different factor endowments. It means that some countries are rich in capital while some are rich in labour. In their theory, the concept of factor endowments or factor abundance is used in relative terms and not in absolute terms. Moreover, they have defined the concept of factor endowment or factor abundance in terms of two criteria (a) Price criterionand (b) Physical criterion.

(a) *Price criterion*- As per price criterion, a country is said to be capital abundant if the ratio of price of capital to the price of labour (PK / PL) is *lower* as compared to the other country. This criterion considers both demand and supply of factors.

(b) *Physical criterion*– As per physical criterion, a country is said to be capital abundant if the ratio of the total amount of capital to the total amount of labour (K/L) is *greater* as compared to other country. This criterion considers only supply of factors.

The Heckscher–Ohlin theorem thus states that – "A nation will export the commodity whose production requires the intensive use of the nation's relatively abundant and cheap factor and import the commodity whose production requires the intensive use of the nation's relatively scarce and expensive factor". The Heckscher –Ohlin theory further leads to the development of factor price equalization theorem. The factor price equalization theorem indicates that free international trade will ultimately lead to equalization of commodity prices and factor prices.

Economists Paul Samuelson and Wolfgang Stolper have further contributed to this theory and have formed Stolper – Samuelson theorem.Stolper –Samuelson theorem explains the effect of change in relative product prices on factor allocation and income distribution. It postulates that an increase in the relative price of a commodity raises the return or earnings of the factor used intensively in the production of that commodity. In other words, an increase in the relative price

of labour intensive commodity will increase wages. Similarly, an increase in the relative price of capital intensive commodity will increase the price of capital. This implies that free trade would raise the returns to the abundant factor and reduce the returns to the scarce factor.

2.2.2.4   New Theories of International Trade

This theory is a result of inability of the Modern theories of international trade in Ricardo and Heckscher–Ohlin theorem to address the structure of the world trade. The new theories can be broadly categorized into three types – (1) Neo – technological trade theories (2) Intra-industry trade models (3) Strategic trade policy models.

1.   Neo – Technological Trade Theories

The neo-technological trade theories emphasizes the importance of technological innovation and the technological gap across firms and countries as a major source of international trade. The main theories are as follows:

(a) **Kravis' Theory of Availability** – In the Kravis' (1956) model, technological innovation as a basis of trade operates through his product availability hypothesis. The availability approach seeks to explain the pattern of trade in terms of domestic availability and non-availability of goods. Availability influences trade through demand and supply forces. According to him, a country produces and exports those goods which are 'available', i.e. goods developed by its entrepreneurs and innovators. By availability he means an elastic supply. Summarily, Kravis' theory of availability states that international trade takes place because of differences in the availability of certain products among countries.

(b) **Linder's Theory of Volume of Trade and Demand Pattern:** Linder (1961)in his theory gave importance to demand side factors like similarity in income levels across nations and income distribution characteristics in determining pattern of trade. As per this theory, international trade takes place between those countries which have similar income levels and demand patterns.

Thus, Linder's theory explains the reasons for large volume of trade in manufacturers among developed countries. The theory highlights the fact that the lion's share of world trade is among the developed countries with broadly similar per-capita incomes rather than between the developed and underdeveloped countries.

(c) **Posner's Imitation Gap or Technological Gap Theory:** Posner (1961)analysed the effect of technology on trade. He regards technological changes as a continuous process which influences the pattern of international trade. The model is based on the assumption that trading countries have similar factor endowments and identical production functions for established products. But, the technology is different between the trading countries. This difference in the technology leads to introduction of new products and new production processes by a firm in a country. As a result, an innovating firm which creates a new product might acquire a temporary comparative advantage in the exports of its products to other countries. This comparative advantage could be called as 'technology gap'. To conclude, the technological gap theory is more realistic than the traditional theories because it analyses the effect of technical changes on the pattern of international trade.

(d) **Vernon's Product Cycle Theory** – Vernon (1966)has put forth the product cycle hypothesis. Vernon's model is a generalization and extension of the technological gap model. It states that the development of a new product moves through a cycle or a series of stages in the course of its development, and its comparative advantage changes as it moves through the cycle.

2. **Intra – Industry Trade Models**

Intra – industry trade refers to trade between identical countries which are exporting & importing similar but differentiated products. The intra- industry trade models developed after 1970s take into account firm level internal economies of scale and product differentiation in explaining trade between identical economies. The main intra –industry models are as follows:

(1) **Krugman's Model (1979):**Krugman in his model points out that trade is possible between the two countries having identical tastes, technology, factor endowments & income levels, because of product differentiation and internal economies of scale in production. Thus, the source of trade between identical economies lies in product differentiation and internal economies of scale in production of manufactured goods under a monopolistic competitive framework. The implications of his model are – (a) Trade increases the choice of goods available to consumers and thereby improves consumer welfare. (b) Trade can cause an increase in demand, production and real income, facilitated by economies of scale.

(2) **Brander – Krugman Model (1983):** The Brander- Krugman model of intra-industry trade is based on oligopolistic competition. The Brander- Krugman model considers a situation in which

two firms of two countries resort to dumping in each other's domestic market. Hence, their model is also known as reciprocal dumping model.

Dumping in the context of international trade means a practice in which a firm sells its products in foreign market at a price much lower than its domestic price. The situation in which dumping leads to a two way trade in the same product is known as reciprocal dumping. The possibility of dumping in international trade was first noted by Brander (1981)and then extended by Brander and Krugman (1983). The Brander- Krugman model suggests that with the opening up of trade the monopoly situation turns into a duopolistic market structure, which is a form of oligopolistic competition. Thus, their reciprocal dumping model explains the intra- industry trade in homogenous products under oligopolistic competition. However, the model fails to explain the net effect of such peculiar trade on a nation's economic welfare.

3. Strategic Trade Policy Models

The strategic trade policy models provide certain theoretical justification for policy intervention such as home market protection and export subsidies towards increasing exports and national welfare. In the broader sense, the strategic trade policy models are an extension of intra-industry trade models. These models are developed in a partial equilibrium framework by assuming oligopolistic competition.

Two strategic trade theory models are as follows:

(a) **Krugman's Model (1984):** Krugman's strategic trade policy model shows that import protection of domestic producers could lead to export promotion. In this model three forms of economies of scale are taken into account - (a) Static internal (to a firm) economies, (b) Economies in Research & Development and investment, (c) Dynamic economies of learning by doing.

(b) **Brander & Spencer's Model (1985):** Brander & Spencer's model shows that export subsidies could help domestic producers to capture third country markets at the cost of foreign rivals. This is a two stage (game theory) model in which governments (simultaneously) choose subsidy levels in the first stage and firms (simultaneously) choose output levels in the second stage. There is no domestic consumption in either country. i.e. firms produce only for the third country market. Hence, it becomes profitable for the domestic firm to expand its sale in the third country market, and capture a large market share at the cost of the foreign rival.

2.2.3 Dependency Theory

Dependency theory states that the poverty of the countries in the periphery is not only because they are not integrated or fully integrated into the world system, as it is often argued by free market economists, but because of how they are integrated into the system. From this standpoint a common school of thought is the Bourgeoisie scholars, who are of the view that the state of underdevelopment and the constant dependence of less developed countries on developed countries are as a result of their domestic mishaps. They believe this issue can be explained by their lack of close integration, diffusion of capital, low level of technology, poor institutional framework, bad leadership, corruption, mismanagement, etc. (Momoh & Hundeyin, 1999). The proponents of this School of Thought see the underdevelopment and dependency of the third world countries as being internally inflicted rather than externally afflicted. To this school of thought, a way out of the problem is for third world countries to seek foreign assistance in terms of aid, loan, investment, etc, and allow undisrupted operations of the Multinational Corporations (MNCs).

2.2.4   The Theory of Unequal Exchange

Unequal exchange is a much disputed concept which is used primarily in Marxist economics, but also in ecological economics, to denote forms of exploitation hidden in or underwriting trade. The theory of unequalled exchange emerged from the supposed inefficient and unreal nature of equaled exchange among trading countries in Ricardo's theory of comparative advantage. In critiquing the theory of comparative advantage, Emmanuel (1972) notes that after elaborating upon the economic benefits of trade Ricardo never inquired into the proportions by which hypothetical trading partners share the consequent efficiency gains. Ricardo presupposed exchange on an equal basis.

In contrast to the positive-sum conceptions of trade proposed by the theory of comparative advantage, unequal exchange refers to the inequalities enacted through cross-national trade between economically and militarily non-equivalent partners.The acronym unequal exchange is attributed to Emmanuel (1972) who coined the term in the 1950s in an effort to refute the theory of comparative advantage as formulated by David Ricardo (Wallerstein 2004). Mainstream economists generally dismiss the idea of unequal exchange and the assertion of systemic peripheral exploitation through international trade. Gilpin (1987), for example, argues evidence of such systemic processes is unsubstantiated. He suggests the cause of declining terms of trade for LDCs, or the ratio of export prices received to import prices

expended, is internal to their own economies rather than a consequence of the structure of the global economy.

Unequal exchange can be broadly defined as the assertion of asymmetrical power relationships between industrialized countries and LDCs wherein the former gain disproportionate advantages at the expense of the latter through international trade. The assertion of unequal exchange relations diverges from neoclassical economic thought by inquiring into the historical power relations that have shaped present comparative advantages, rather than taking present comparative advantage as a given (O'Brien & Williams 2004). Unequal exchange produces structural tendencies facilitating and constraining the "action capabilities" of particular countries or the ability to seize opportunities, generate new options, and influences the conditions and terms of exchange in which they are enmeshed in the global economy (Baumgartner, Buckley, & Burns, 1976). Baumgartner et al. (1976) argue cross-national exchange may be unequal because of:

1) Unequal productive capabilities allowing for the differential ability to take advantage of positive opportunities and avoid negative outcomes. This includes the ability to restructure internally so as to remain flexible and adaptable in relation to other countries and evolving circumstances; and,

2) Differential capacity to shape the broader structure of exchange relationships to influence the relative benefits and liabilities likely to accrue to different actors in the future.

From a neoclassical economics perspective unequal exchange is, by definition, impossible within a non-monopolized free market context (Hornborg, 2003). This is because mainstream economists tend to equate "utility" with "exchange value," such that rational actors maximizing their self-interest in a market system define the value of a commodity through the price mechanism (Hornborg 1992). In a situation of non-coerced free trade the market price or that which someone is willing to sell and someone willing to pay determines the value of a commodity. On the other hand, from a Marxist perspective the assertion of unequal exchange is implicitly based upon the insistence of some objective underlying under-valuation shaped by international trade whereby the true interests of some countries are constrained while other countries are disproportionately rewarded. There exists, moreover, a suspicion that monetary exchange values or prices and utility are not always synonymous (Hornborg, 2003). In turn, unequal exchange suggests the objectively asymmetric transfer of real value that cannot be

identified simply through reference to prices, which more often obscure than illuminate the substantive flows South to North underlying trade relations (Hornborg, 2003).

The suggestion of unequal exchange lies at the heart of world-systems analysis, as it is a central mechanism of exploitation upon which the systemic relations between countries is enacted and reproduced. Many world-systems theorists do not view unequal exchange as exclusively zero-sum but, rather, disadvantageous such that alternative systemic relationships could potentially produce greater relative benefits for LDCs but, nonetheless, their realization is improbable given the structural momentum of the world-system and the powerful vested interests seeking to maintain asymmetrical relations.

Dependency, in contrast, refers to a situation in which the dominant modes of production, division of labor, and overall political-economic dynamics of a country are subject to and fundamentally shaped by the political-economic activities of other countries in a manner that generally tempers or constrains development potential (Dos Santos, 1970). Unequal exchange is a mechanism that perpetuates and shapes dependency relations. However, they tend towards a reciprocal relationship between unequal exchange and dependency. Emmanuel (1972) formulated a more specific definition of unequal exchange by arguing that trade generally consists of the export of capital intensive, high wage products from industrialized countries in exchange for labor intensive and low wage products from the periphery. Wage differentials, moreover, cannot be explained simply as the consequence of divergent labor productivity but are strongly influenced by historical development patterns that have largely protected the disproportionate wage rates in the industrialized countries. Low wage rates in the periphery are perpetuated by the substantial cross-national immobility of labor but relatively greater mobility of core investment capital, allowing access to the abundance of reserve labor in LDCs. As a consequence, international trade reinforces differential cross-national wage rates and contributes to relatively higher labor exploitation and coercion in peripheral countries. This exchange is unequal as capitalists within industrialized countries capture significant portions of the labor value that otherwise would accrue within the periphery (Emmanuel, 1972).

2.2.4.1   Critiques and Arguments of Unequal exchange

Major critiques have argued the stand of Emmanuel (1972) on unequal exchange; for instance, De-Janvry and Kramer (1979) specifically attack the theoretical assumption and suggest that transfers of surplus value from the periphery to the center cannot occur when the

traded goods are not country specific. They further state that criticism that unequal exchange cannot be established with non-specific commodities is correct. They claim that the assumption of specific goods rules out the possibility of competition between the center and the periphery in the world market, since they are producing distinctly different products. Another point they bring up, concerns the wage differentials. Emmanuel postulates that once the initial wage differentials are established through historical, social and biological factors, they persist and they are reinforced by transfers of value, because labor immobility prevents equalization. However, lack of labor migration alone does not ensure the persistence of wage inequalities. Capital mobility in search for lower costs can compensate for labor immobility. Implicit in Emmanuel's argument is the notion of a surplus labor army in the periphery. Capital inflows, however, can exhaust this surplus by accelerating accumulation and increasing employment, thereby increasing wages. Emmanuel offers no mechanism to reverse this tendency of wages to equalize through capital movements in the long run. In fact, this effect of capital inflows to stimulate economic development in the periphery is the Marxist conventional wisdom. Some of the mechanisms that can be offered to explain the persistence of wage differentials among countries are relative sizes of reserve armies, as above, disarticulated accumulation and legislative restrictions, yet none of these are compatible with Emmanuel's assumptions of capital mobility and perfect competition. Thus within the given framework, unequal exchange is not self-sustaining as Emmanuel argues. However, Gibson (1980) claims the De Janvry and Kramer's argument is invalid. He thinks that Emmanuel's use of the labor theory of value in his expositions is a source of confusion for many scholars discussing the issue. In fact unequal exchange has nothing to do with the labor theory of value. What Emmanuel essentially does is to compare prices that prevail with existing wage differentials to prices that would prevail if wages were equal. Defining unequal exchange as a transfer of value alone does not explain in what sense one party is better off. In order for the analysis to be meaningful, the transferred surplus needs to be measured in prices, not in value terms. Gibson establishes and proves the fundamental theorem of unequal exchange, without the labor theory of value. The fundamental theorem says, in the simple case of two countries and two specific commodities with no trade pattern reversals, an increase in the wage rate in one country will improve its terms of trade (Gibson, 1980). When the theorem is extended to many countries and many commodities, the results become somehow ambiguous. When it is extended to non-specific commodities, a mathematical proof cannot be established.

In refuting the De-Janvry and Kramer's argument about capital mobility, Gibson says, lower wages alone do not ensure higher profitability in the periphery; all other costs should also be considered. Thus, lower wages may not be sufficient to induce equalizing capital flows, so the self-exhaustive nature of unequal exchange is not as straightforward as the claim. Lastly, Gibson raises the question of whether Emmanuel's theory constitutes a basis for a general theory of underdevelopment. He thinks not, because unequal exchange cannot account for the way the surplus is used once it is appropriated.

Shaikh (1979, 1980) in relation to the broader issues of the law of international value and the Marxist theory of international trade, evaluates how effective Emmanuel's theory of unequal exchange is as a refutation of the theory of comparative advantage. His conclusion is that it leaves comparative advantage theory intact. Emmanuel's formulation implies that "the law of comparative costs continues to determine the international patterns of trade and specialization (and hence the international division of labor)" but "the modern mobility of capital gives rise to a set of entirely new and unforeseen consequences arising from this law" (Shaikh, 1979).
The inability of the orthodox trade theory to account for the inequality of gains from trade is empirically quite straightforward, yet formulating a comprehensive theoretical framework that will account for them turns out to be tricky. Despite the popular use of especially the extended Amin-Saigal version of the unequal exchange theory by the dependency school in 1970s, there seems to be a consensus on its limitedness and inadequacy as a general theory of uneven development.

At the last instance Emmanuel's theory of unequal exchange seems to fall short of being a consistent and coherent refutation of the law of comparative advantage and the Heckscher-Ohlin-Samuelson framework. The theoretical and empirical discussions stimulated by this theory however, go a long way in inspiring alternatives to the conventional wisdom.

2.2.5   Theory Adoption

For the purpose of this study, the International Trade Theory of Heckscher-Ohlin-Samuelson and Ricardos' (1817) Comparative Cost Advantage theory were adopted for the study.International Trade Theory suggests that openness to international trade generate substantial gains by reallocating resources between tradable and non-tradable sectors and facilitate economic growth at large, while the Comparative Cost Advantage theory states that a country will *export* those commodities in which its comparative advantage is the greatest and

import those commodities in which its comparative disadvantage is the highest.The comparative cost advantage theory is added to eliminate the weakness of international trade theory in possible importation of and exportation of any items of trade without considering economic advantages. Other theoretical models however suggest that free trade may hurt growth in income of underdeveloped or agrarian economies. In Bagwahati's (1958) immiserizing growth, export led growth may lead to a decline in national welfare. According to this theory, if growth is heavily export biased, it might worsen the terms of trade of the exporting country. In some instances this decline in the terms of trade may be so large as to outweigh the gains from growth. These theories however evidently play out on the Nigerian and the South African economies. While the Nigeria economy is dominantly importing nation with the advantages of technological and labour growth, the South African economy is majorly an exporter of tangible and intangible services.

The Heckscher-Ohlin-Samuelson theory facilitates and aids the functions of external reserves to boost economic growth in safeguarding the domestic currencies, meeting of international payment obligations and buffer for external shocks, and serve as backup during rainy days in international transactions. Fukuda and Kon (2008) holds that foreign exchange reserves have a positive impact on total external debt outstanding and export and a negative effect on the average maturity and consumption thus boosting economic growth. Usman and Ibrahim (2010) also state that demand for external reserves in Nigeria "has been driven mainly by current account variability, real exchange rate and opportunity cost of holding reserves (measured by the difference between the real return on reserves and the real return on domestic investments)" to boost international trade and economic growth at large. This corroborate those of Adam and Leonce (2007) who stated that "demand for international resources (transaction) in Africa is determined by Export, GDP growth and opportunity cost of holding reserves".

The study of Abubakaar (2010) in Dawson-Miyoski (2012) also corroborates the Heckscher-Ohlin-Samuelson theory in his study of exchange rate on economic growth of Sierra Leone. He discovered that there is positive correlation between real effective exchange rate and economic growth. Aman et al. (2013) also in their study of the relationship between exchange rate and economic growth in Pakistan for the period 1976–2010 employing two and three stage least square (2SLS and 3SLS) techniques discovered that exchange rate has a positive association with economic growth through the channel of export promotion incentives, enlarging

the volume of investment, enhancing FDI inflow and promoting import substitute industry. Signifying that exchange rate in trade openness facilitate economic growth in an economy.

In the study of Adedoyin, Babalola, Otekunri andAdeoti (2016) on the impact of external debt on economic growth in Nigeria for the period 1981-2014 using Auto-regressive Distributed Lag (ARDL) model discovered that a significant relationship exists between external debt and economic growth both at the long and short run. Adeleke, Olowe and Fasesin (2014) also studying the impact of foreign direct investment on Nigeria economic growth over the period of 1999-2013 discovered that economic growth is directly related to inflow of foreign direct investment and it is also statistically significant at 5% level which implies that a good performance of the economy is a positive signal for inflow of foreign direct investment, which all support the adopted Theory of International Trade and Comparative Cost Advantage for the study. Hence, looking at the interplay of the external sector variables findings on economic growth, the Heckscher-Ohlin-Samuelson theory of International Trade and Ricardo theory of Comparative Cost Advantage were thus supported.

The theories shows that openness to international trade enhances the chances of economic growth as they reflect the multiplier effect of external sector trade and engagements boost economic activities and productivity thus signifying that increase activities in the international trade will boost economic growth and returns. The theory of comparative cost advantage also signifies that both countries export commodities that constitute a point of advantage in the international market while import commodities that worsened its chances if produced locally. Hence, the comparative cost advantage and international trade theories display the Nigerian Oil export commodities and South African Mines, Minerals, Services etc commodities trigger economic enhancement and form transactions that affect their external sector position the rest of the world.

2.3   Empirical Review

Empirical literature on the effect of external sector on economic growth is limited especially, in emerging economies of Sub-Sahara Africa. However, vast literature has been done using various macroeconomic variables to x-ray economic growth within and outside Sub-Sahara Africa emerging economies.

The empirical works on the relationship between external sector, external trade and economic growth, have focused primarily on the relationship between FDI, terms of trade, Oil Price, Consumer prices and exchange rate (CBN, 2013), the Net external position, Trade Openness, Net Foreign Asset and economic growth (Ghosal, 2012), the Financial Integrations, Trade Integrations, Net Foreign Assets and economic growth (Shah & Fazal, 2016). The literature is almost silent on a possible bearing of external reserves, external debt, exchange rate, FDI and trade integration together on economic growth. The few empirical works that addressed this issue considered the role on trade integration, FDI separately on economic production. For example, Ghosal (2012) studied long run dynamics of causality between external sector and economic growth in India, Shah and Fazal (2016) conducted a VAR regression on external sector and its impact on economic growth in Pakistan. Ewetan and Okodua (2012) examine the VAR econometric analysis of exports and economic growth in Nigeria. While Berasaluce and Romero (2017) also studied the VAR regression on economic growth and the external sector as evidenced from Korea and lessons for Mexico.

Despite these empirical studies, little empirical studies on the external sector and economic growth exist. Hence, the need to look at the empirical studies relating to external sector variables in external reserves, external debt, exchange rate, foreign direct investment and trade integration as they affect the economic growth of emerging Sub Sahara African economies in Nigeria and South Africa.

2.3.1 External Reserves on Economic Growth

There are various studies on different aspects of external (international) reserves such as Jeanne and Ranciere (2006) and Jeanne (2007) on the optimum size of currency reserves; Aizenman and Lee (2007), Cheung and Ito (2009) and Obstfeld, Shambaugh and Taylor (2010) on the determinants of demand for reserves using various explanatory variables; Drummond, Mrema, Roudet and Saito (2009) on the motives for holding reserves; and Rodrik (2006), Bar-Ilan and Lederman (2007), Bar-Ilan and Marion (2009), Ho and McCauley (2009), Zhou (2009), and Banchs and Mollejas (2010) on the various impacts of reserve accumulation including policy implications. These studies concentrated on the macroeconomic impact of external (international) reserve accumulation; a few relevant studies are reviewed here. Marc-André and Nicolas (2015) examine foreign exchanger serves in emerging 8 Asia countries from 1980 to

2003. Secondary data were collected and subjected to panel ADF test, panel co-integration and Panel ECM., and they discovers that reserve accumulation aid Asian countries to have negative risks to the U.S. dollar.

Polterovich and Popov (2003) in a cross country regression of 92 countries show that the accumulation of foreign exchange reserves contributes to economic growth of developing countries by increasing both the investment/GDP ratio and capital productivity, even after consideration of other factors affecting economic growth over the period of 1960-99. Further, in a panel data estimation of 21 African countries over the period of 1979-2005, Elhiraika and Ndikumana (2007) examined the impact of reserve accumulation on the exchange rate, inflation and investment. They found that reserve accumulation tends to bring an appreciation of the exchange rate but no significant impact on current inflation. As for these authors, the monetary authorities have been successful in containing the expansionary impact of reserve accumulation. Moreover, both private and public investments increase with the accumulation of foreign exchange in the long run, though the short-run response remains weak (Elhiraika & Ndikumana, 2007).

However, in the study of Krušković and Maričić (2015), they analyzed the effect of the accumulation of foreign exchange reserves on economic growth in emerging countries in Brazil, China and Russia for the period from 1993 to 2012. Their study used ONK method with fixed individual effects to run a balanced panel data. Their empirical results suggest that the increase in the growth of foreign exchange reserves by one percentage impact on the growth rate of GDP growth by 0.06 percentages. The accumulation of foreign exchange reserves does not lead to inflation if the rate of accumulation of foreign exchange reserves does not exceed the rate of economic growth.

Umeora (2013) carried out a study on foreign exchange reserves accumulation and macroeconomic stability in Nigeria. The study deal with time series figures from the period of 1986-2011. Unit root test were employed to test whether the time series data being used are stationary or not, co-integration test were same time employed to know if there is any correlation between the variables while multiple regression were also employed to know the level of significant of the variables mentioned on external reserves. The results of the tests show that

exchange rate and GDP have positive and significant relationship with FER accumulation while inflation has negative and insignificant relationship with FER. Also looking at the Nigerian external reserves is Fapetu and Oloyede (2014), who examined foreign exchange management and the Nigeria economic growth between 1970 to 2012; ordinary least square estimation techniques within the error correction model (ECM) framework and the Johansen-Joselius co-integration were employed in the study. The result of the co-integration shows that there is a unique long run relationship among the variables under consideration. The result shows that the explanatory variables explain and account for about 99% of variation in economics growth (GDP), which is an evidence of a good fit of the model. The result shows foreign exchange management as a control variable aid export and foreign direct investment to statistically and significantly determine economic growth when considered at 5 and 10% respectively.

Alasan and Shaib (2011) examined the management of external reserves and economic development in Nigeria between 1980 and 2008. The study employed ordinary least square (OLS) estimation technique. The empirical result of the data analysis revealed that there is statistical significant relationship in the management of Nigerian external reserves and economic growth. This is in line with Ibrahim (2011) who investigated the impact of change in external reserves position of Nigeria on domestic investment, inflation and exchange rate between 1986 and 2006. He used a combination of ordinary least square and vector error correction models and discovers that changes in reserves influence only foreign direct investment and inflation rates.

Shrestha (2016)examine the implications of international reserve accumulation for macroeconomic outcomes such as economic growth and inflation using a dynamic macro model (Panel VAR method) with new monetary policy rule for South Asian countries, namely Bangladesh, India, Nepal, Pakistan and Sri Lanka for the period of 1990 to 2013. The empirical results show that increase in international reserves tends to cause higher economic growth in these countries but without significant impact on inflation. This implies that these countries can move further utilizing the accumulated international reserves productively which will enhance economic growth and maintain internal and external balances. In the study of Omade and AbdulazeezB (2011), they also examined the management of external reserves and economic development in Nigeria between1980 to 2008 and discovered that there is statistical significant relationship in the management of Nigerian external reserves.

Mohanty and Tuner (2006) studied the domestic implications of reserves accumulation in emerging markets. On exchange rates, they opine that there are no simple indicators to show how exchange rates may have become misaligned as a result of continued sterilization actions by monetary authorities. However, real exchange rates do not rise significantly in countries with large stock of foreign reserves.

Akaninye (2016)examined the impact of Nigeria's foreign reserves accumulation on macroeconomic environment from 2004 to 2014 using ADF and PP test, johansen Co-integration and OLS econometric model to analyze the data obtained. Seven macroeconomic variables were selected to represent macroeconomic environment (GDP, inflation, exchange rate and unemployment, investment, external debt and total trade). The result showed that all variables were stationary at first difference except inflation and the co-integration result obtained also showed the existence of a long run relationship between foreign reserves and the explanatory variables. The study therefore concludes that foreign reserve is a necessary tool in the macroeconomic stability of the country.Meshak (2014) also examining the relationship between external reserve and economic growth in developing country with particular focus on Nigeria from 1970 to 2009 and using OLS regression showed that there is a significant relationship between level of economic growth and external reserve accumulation. The findings of this study are consistent with earlier studies of Evans and Egwakhe (2008) and Omoh (2012) and support the propositions of the endogenous growth theory by Romer and Robert (1980).

Akinwunmi and Adekoya (2016) examining external reserves management and its effects on Nigerian economic growth from 1985 to 2013 revealed that there is a significant relationship between external reserves and the explanatory variables (EXR, MPR. IFR, FDI). The result of their study revealed that FDI, MPR and GDP contribute immensely to the external reserves position in Nigeria. Usman and Ibrahim (2010) studied external reserves holding with implications for investment, inflation and exchange rate. Using OLS and Vector Error Correction (VEC) model they concluded that change in external reserves in Nigeria only influences foreign direct investment (FDI) and exchange rates and no influence of it was found on domestic investment and inflation rates. Their findings corroborate those of Adam and Leonce (2007) who stated that "demand for international resources in Africa is determined by Export, GDP growth and opportunity cost of holding reserves".

Foreign currency accumulation leads to lower inflation in Pakistan (Chaudhry, Akhtar, Mahmood & Fardi, 2011). However, Ho and McCauley (2009) discovered no strong evidence of inflation with large-scale reserve accumulation. Chaudhry et al. (2011) on the other hand showed that developing and emerging countries rely on imports, which makes a decline in the volume of foreign exchange reserves and further reduces the imports of industrial and agricultural raw material ingredients, unleashing inflationary pressures via shortages in the market while Ho and McCauley (2009) argue that an absence of inflationary pressure may be due to sufficient excess labour and capacity to meet growing demand without exerting upward pressure on prices.

However, contrary to earlier positive findings and supporting Ho and McCauley (2009) is Osuji and Ebiringa (2012), who examined analysis of effect of external reserves management on macroeconomic stability of Nigeria from 1981-2010. Secondary data were sourced and analyzed using multiple regressions, granger casualty test, VAR model and unit test. The study revealed that external reserves were observed to be inversely related to macroeconomic instability. This is supported by Udo and Antai (2014) who investigated the impact of Nigeria's foreign reserves on the domestic economyfrom 1970 to 2011. Their study looked at two multiple regression models to test the impact of external reserves on the domestic economic level and to check the effect of external reserves on the domestic investment. The result of their study shows that external reserves negatively influence the level of domestic economic productivity and investment. Therefore, the mixed results on the implication of external reserves in external sector support the need for this research on economic growth of emerging economies in Africa.

2.3.2   External Debt on Economic Growth

In the quest for expressive growth and development of emerging economies in African, it is difficult for a country to finance all of its development spending with its own resources. As a result, to cover up the gap between its expenditures and revenues, it has to borrow one way or another from external resources.

Pattilo, Poirson and Ricci (2002) in their study of Laffer curve type relationship between the stock of external debt and growth using a large panel data of 93 developing countries over the period 1969-1998. Their study discovered that the average impact of external debt on per capita GDP growth is negative for net present value of debt levels above 160-170 percent of

export and 35-40 percent of GDP. These results are robust across different estimation methodologies and specifications and suggest that doubling debt levels slows down annual per capita growth by about 50% percentage point.

Mencinger, Aristovnik and Verbič (2014) examine the impact of growing public debton economic growth in the European Union covering a panel dataset of 25 sovereign member states of the EU from period of 1980 to 2010 and new member states, covering the period of 1995 to 2010. Their study showed a statistically significant non-linear impact of public debt ratios on annual GDP per capita growth rates. They revealed that debt-to-GDP turning point for the old member states had positive effect of accumulated public debt inverts into a negative effect while the debt-to-GDP turning point is lower for the new member states. Thus, they discover that the threshold value for the 'new' member states is lower than for the 'old' member states.

Checcherita and Rother (2010) investigated the impact of high and growing government debt on economic growth in twelve euro area countries over a period of about 40 years starting in 1970 to 2010. They discovered a non-linear impact of debt on growth with a turning point beyond which the government debt-to-GDP ratio has a deleterious impact on long-term growth at about 90-100% of GDP. Siddique, et. al. (2015) analysed the extent to which the external debt burden impacts on a country's gross domestic product (GDP) using data from HIPC over the period 1970-2007. The findings of empirical analysis suggest that in the short-run as well as in the long-run, a reduction in debt stock would have significantly increased the growth performance of the indebted nations.

Zouhaier and Fatma (2014) studied the effect of debt on economic growth of 19 developing countries over the period 1990-2011, through the use of a dynamic panel data model. They discovered that external debt negatively affects economic growth of countries in the 19 developing countries. Indeed, the ratio of external debt as a percentage of GDP and the debt ratio as a percentage of GNI have negative and statistically significant coefficients, which justify the negative effect exerted by the debt on economic performance of developing countries.

Malik, Hayat and Hayat (2010) explored the relationship between external debt and economic growth in Pakistan for the period of 1972-2005, using time series econometric technique. They concluded that External Debt is negatively and significantly related with

economic growth. The evidence from their study suggests that increase in external debt will lead to decline in economic growth. Debt servicing has also significant and negative impact on GDP growth. As the debt servicing tends to increase, there will be less opportunities for economic growth.

In Sub-Saharan African studies, Fosu (1996) tested the relationship between economic growth and external debt with an empirical study for the sample of Sub-Saharan Africa countries over the 1970-1986 periods by employing the OLS method. This study examined to which degree debt had a negative impact on economic growth of Sub-Saharan African countries. This study estimates the direct effect of debt hypothesis and indirect debt hypothesis. The direct effect of debt hypothesis proposed that if debt service payments do not decrease investment and saving levels considerably, the debt negatively affects growth directly by reducing productivity. It is also argued that the direct effect of debt hypothesis suggests that both debt service payments and debt outstanding may affect GDP growth rate negatively even if debt outstanding and debt service payments do not affect investment levels. The findings of this study also shows that on average a high debt country faces about one percentage reduction in GDP growth rate annually. In order to be certain with overall impact of debt burden without considering the debt services responsibilities, Fosu (1999) conducted another study by estimating the impact of external debt on GDP growth in the 1980s, based on a cross country analysis of 35 Sub-Saharan countries. He observed that 'net external Debt', measured as total external debt outstanding less total reserves, as a proportion of GDP, is most likely the best measure of the debt burden. In an attempt to evade the potential problem of causation, he uses the external debt measure for the first half of the period as well as that for the entire period. He finds a fractional elasticity of growth with respect to external debt of 0.5 for either measure. From the standing point of this finding, he concludes that Sub-Saharan growth could have average 1.2 percent, nearly 50 percent, higher during the decade of the 1980s in the absence of the external debt burden.

Iyoha (1999) examined the impact of external debt on economic growth in Sub-Saharan Africa countries estimated for 1970-1994 period using simulation approach. The main finding of the study was the significance of debt overhang variables in the investment equation, suggesting that mounting external debt depresses investment through both a disincentive effect and a crowding out effect.

Zaghdoudi, Mezni and Djebali (2016) explore the influence of external debt (measured by two indicators that are outstanding debt and debt service in relation to exports of goods and services) on investment and economic growth in Tunisia during a period of 51 years which runs from 1961 to 2011, using vector autoregressive model (VAR). The empirical results show that, in the short term, outstanding debt and debt service in relation to exports of goods and services do not cause economic growth. In the long term, the external debt service is detrimental to Tunisian economy.

Faraji and Makame (2013) conducted a study in Tanzania to examine the link between foreign debt and economic growth for the time period of 1990-2010. The main finding revealed that there was significant impact of debt stock and debt service obligations on GDP growth. The total external debt stock has a positive effect of about 0.36939 and debt service payment has a negative effect of about 28.517. But in the long run there is no relationship of external debt and GDP.

Ayadi (2008) investigated the impact of indebtedness and debt service obligations on economic growth of Nigerian and South African economies. On this study he attempted to explore a linear as well as non-linear effect of debt on growth and investment using both ordinary least squares (OLS) and generalize least squares (GLS) in his analysis. He finds that external debt and servicing requirements have negative effects on both countries economic growth. Moreover, from the result conclude that, South Africa performs better than Nigeria in the application of external credits to promote economic growth. In addition, in Nigeria external debt affects economic growth positively up to a certain point after which its contribution becomes negative.

However, in the study of Anochie and Ude (2015), who investigated Nigerian's Management of the External Debt from 1981 to 2014 using OLS regression method, discovered that external debt in Nigeria posed several challenges that has hindered the economic growth and development of this nation. Udoka (2010) also investigated the relationship between external debt management policies on the economic growth of Nigeria using ordinary least square (OLS) method. From the analysis he finds that GDP, exchange rate, fiscal deficit and terms of trade are the major determinants of external debt in Nigeria. In addition, the adverse effect of external debt is reflected in the country's inability to meet the debt service obligations.

However, Oke and Sulaiman (2012) examined the impact of external debt on economic growth and investment in Nigeria by adopting the debt Cum-Growth model along with multiple regression technique. From the result they conclude that there was existence of a positive relationship between external debt, economic growth and investment: and this result was confirmed by the coefficient of determination (R^2) of about 79.8%. While the findings revealed that the current external debt ratio of GDP stimulates growth in the short term, the private investment shows a decline.

Udeh, Ugwu and Onwuka (2016) attempt to ascertain the impact of external debt on economic growth in Nigeria between 1980 to 2013. They looked at the interplay of external debt stock, external debt service and exchange rate on economic growth and discovered that external debt had a positive relationship with Gross Domestic Product at short run, but a negative relationship at long run. Also, while external debt service payment had negative relationship with gross domestic product, exchange rate had a positive relationship with it.

Emerenini and Nnanna (2015) also analyzed the effectiveness of external debt on economic growth within a span of 1981-2012 in Nigeria. Using Engle & Grenger Cointegration and Ordinary Least Square (OLS), the study discovered that that rising external debt stock inhibits the pace of economic growth of Nigeria by increasing the cost of its servicing beyond the debt sustainability limit while external debt servicing was found not to impair economic growth. Furthermore, Ezeabasili, Isu and Mojekwu (2011) studied the relationship between Nigeria's external debt and economic growth between1975-2006, with an error correction approach. Error correction estimate revealed that external debt has negative relationship with economic growth in Nigeria.

Thus, the findings of empirical review in external sector variable of external debt on economic growth both in Nigeria, Sub-Saharan Africa region and emerging economies of the world have shown that external debt have mixed impact on economic growth.

2.3.3 Exchange Rate on Economic Growth
A common indicator for assessing external sector is the exchange rate which serves as an interplay for financial movement across countries. The indicator has been widely used in the literature as a stable measure of external sector impact on economic growth.

Levy-Yeyati and Sturzenegger (2003) studying the relationship between exchange rate regimes and economic growth for a sample of 183 countries post-Bretton Woods period in developing countries showed that less flexible exchange rate regimes are associated with slower growth, as well as with greater output volatility. For industrial countries, flexible exchange rate regimes do not appear to have any significant impact on growth. This finding is in line with the study of Khataee and Mousavi (2008), who examined the effect of exchange rate fluctuations on the level of economic growth considering the level of financial markets development using the five-year means of data from a sample of 69 countries and employing a panel data model,. The results of their study show that in lower level development of financial markets, the effect of exchange rate fluctuations on economic growth is negative and in upper levels this effect can be positive.

Jakob (2016) did a cross sectional investigation into fixed exchange rate regime and its correlation with GDP growth in 74 countries and discovered that there is indeed a significantly positive correlation between fixed regimes and economic growth. These were possible as a result of the stability factor that a fixed regime offers.

Aghion *et al.* (2006) examined the changes in exchange rates and productivity growth with respect to the role of financial development, based on the data of 83 countries over the years 1960-2000. They showed that changes in exchange rates can have a significant effect on productivity growth in the long-term. However, this effect strongly depends on the country's level of financial development. For countries with relatively low financial development, exchange rate change generally reduces growth, while for countries with advanced financial development exchange rate change has no significant effect.

Schnabel (2008) examined the effect of stabilization of the exchange rate on economic growth in 41 economies of the Europe Union. The study uses panel data approach to measure the negative effect of exchange rate fluctuations on economic growth. The findings of this study, introduces international trade, international capital flows and stabilizing the macro-economy as major channels for transmission of exchange rate stability to economic growth.

Moreover, the effects have been out rightly negative in some cases. Kandil (2004) examines the effects of exchange rate fluctuations on real output growth and inflation in a

sample of twenty-two developing countries. The study concludes that currency depreciation affect economic performance in developing countries negatively.

Mehdi, Arezoo and Alireza (2014) in their investigation of the effect of exchange rate fluctuations on economic growth considered the rate of development of financial markets in developing countries over the period 1986-2010.The results obtained by analyzing panel data of 18 countries show that the effect of financial development on economic growth as well as the effect of exchange rate fluctuation on economic growth are negative and significant.

On single country studies, Ahmad, Ahmad and Ali (2013) investigated the impact of inflation, nominal exchange rate, FDI and capital stock on economic growth of Pakistan by using time series data for the period of 1975-2011. The study shows that inflation and exchange rate has negative and significant effect on economic growth of Pakistan.

Jinzhao (2012) in his study of the role of exchange rate and economic growth using 28 Chinese provinces data for the period of 1992-2008 discovered that there is a positive effect of real exchange rate on economic growth of China. Hua (2011) also investigated the economic and social effects of real exchange rate using the GMM system estimation approach and panel data for the 29 Chinese provinces for the period of 1987 to 2008. The results show that the real exchange rate appreciation had a negative effect on the economic growth, higher in coastal than in inland provinces, contributing to a minimizing of the gap of GDP per capita between two kinds of the provinces. They show moreover that the real exchange rate appreciation had negative effects on employment.

He' (2010) also explores the relationship between exchange rate and economic growth in China. He views that China adopted fixed exchange rate policy and made rapid economic growth. He further adds that fix exchange rate cause the promotion of long run productivity. However, Danson-Musyoki (2012) finds negative impact of real exchange rate volatility on economic growth in China. Also throwing more weight behind the findings of Danson-Musyoki (2012) is Ferrando (2011) who examined the relationship between exchange rate appreciation and economic growth in china using the annual data between 1987 and 2008. Using the Generalized Method of Moment (GMM) technique, the study revealed that exchange rate has a negative effect on economic growth in China.

Aman et al. (2013) attempted to explore the relationship between exchange rate and economic growth in Pakistan for period 1976–2010. They employ two, three stage least square (2SLS and 3SLS) techniques and found that exchange rate has a positive association with economic growth through the channel of export promotion incentives, enlarging the volume of investment, enhancing FDI inflow and promoting import substitute industry.

Kamal-Uddin, Rahman and Quaosar (2014) examine the relationship between exchange rate and economic growth proxied by real gross domestic product in Bangladesh for a period of 41 years ranges from 1973 to 2013 by using time series econometric technique. The study employed Johansen Co-integration and Granger Causality test and the empirical results show that there is a significant positive correlation between exchange rate and economic growth. The results also advocate the presence of long-run equilibrium relationship between exchange rate and economic growth. This is evidenced from Granger's Causality Test that there is a bi-directional causality runs through exchange rate to economic growth and economic growth to exchange rate.

In Brazil, one of the fastest developing economies of the world, Toulaboe (2007) examined the relationship between real exchange rate misalignment and economic growth in Brazil using the annual data for the period of 1980 to 2005. Using Ordinary Least Square COLS) technique, the result revealed a negative relationship between exchange rate and economic growth in Brazil.

In the Sub Saharan African countries different empirical findings were presented and conclusions made. Attah (2013) investigated the econometric analysis of the relationship between GDP growth rate and the exchange rate in Ghana. Using the annual data for the period of 1980 to 2013. Using Ordinary least Square technique, the result revealed a positive relationship between exchange rate and economic growth in Ghana. Huang (2004) examined the effect of exchange rate movement on economic growth in Togo, using the annual data for the period of 1970 to 2000 Using Ordinary Least Square, the result revealed a negative relationship between exchange rate and economic growth in a shot run while a positive relationship exists in the long run.

Musyoki, Pokhariyal and Pundo (2012) examined the impact of real exchange rate volatility on economic growth in Kenyan for the period January 1993 to December 2009. Using

generalized autoregressive condition of heteroscedasticity (GARCH) and generalized method moments (GMM) to assess the impact of the real exchange rate volatility on economic growth, their study showed that RER was very volatile for the entire study period. Kenya's RER generally exhibited an appreciating volatile trend, implying that in general, the country's international competitiveness deteriorated over the study period. The RER Volatility reflected a negative impact on economic growth of Kenya. Similarly, Brown (2012) studied the impact of real exchange rate volatility on economic growth in Kenya using the annual data for the period of 1993 to 2009. Using Vector Auto-regression (VAR) technique, the result revealed that exchange rate has a negative impact on economic growth in Kenya.

In South Africa, Mewadi (2013) investigated the impact of real exchange rate on economic growth in South Africa using the annual data for the period 1994 to 2010 Using Ordinary least Square technique, the result showed that exchange rate has a negative long run impact on economic growth in South Africa.

Sibanda (2012) studied the impact of real exchange rate and economic growth in South Africa using the annual data for the period of 1994 to 2010. Using ordinary least Square (OLS). The result revealed that exchange rate has a positive impact on economic growth in South Africa.

In Nigeria, Akpan and Atan (2012) investigated the effect of exchange rate movements on real output growth in Nigeria from 1986 to 2010. They study using Generalised Method of Moments (GMM) technique showed that there is no evidence of a strong direct relationship between changes in exchange rate and output growth.

Dada (2012) examined the effect of exchange rate volatility on economic growth in Nigeria using the annual data for the period of 1970 to 2009. Using Vector Auto-regression (VAR) technique, the studied revealed that economic growth is negatively related to exchange rate in the long run while in the short run, a positive relationship exist between the two variables in Nigeria.

Fapetu (2013) investigated the relationship between foreign exchange and the Nigerian economic growth using the annual data for the period of 1960 to 2012. Using Ordinary Least Square (OLS) technique, the result revealed that exchange rate explained and accounted for about 99% variation in economic growth. Akpan (2009) studied the relationship between exchange rate and economic growth in an emerging petroleum based economy using the annual

data for the period of 1970 to 2007. Using Ordinary Least Square (OLS) technique, the result revealed that there is a positive relationship between exchange rate and economic growth in Nigeria.

Amassoma and Odeniyi (2016) examined the impact of exchange rate fluctuation on the Nigerian economic growth using an annual data of forty-three (43) years covering the period of 1970 to 2013. The study exhibited that there exists a positive but insignificant impact of exchange rate fluctuation on Nigerian economic growth in both the long run and short run.

Pius (2012) also investigated the relationship between exchange rate volatility and economic growth in Nigeria, using the annual data for the period of 1960 to 2010. Using Ordinary Least Square (OLS) technique, the result showed that there is a positive relationship between the two variables in Nigeria. Shehu (2012) examines the relationship between exchange rate volatility, trade flows and economic growth in Nigeria using the annual data for period of 1970 to 2009. Using a Vector Auto-regression (VAR) technique, the result revealed that exchange rate volatility has positive effects on the economic growth in Nigeria.

Summarily, different findings exist in the literature on the effect of external sector factor in exchange rate on the economic growth and activities of a developing economy across the world. Hence, the researcher will consider the role of exchange rate as part of external sector variables on the economic growth of emerging African economies.

2.3.4 Foreign Direct Investment on Economic Growth

Various empirical studies have been carried out on impact of foreign direct investment on economic growth. Foreign investment were considered either as an inflow or outflow, remittances were also reviewed as major form of foreign direct investment as they affect investment in the receiving economy. In the study of Agrawal (2015), who examined the relationship between foreign direct investment (FDI) and economic growth in the five BRICS economies over the period 1989–2012 and found that Foreign Direct Investment and economic growth are co-integrated at the panel level, indicating the presence of a long-term equilibrium relationship between them. However, Tang (2015) discover in his study of foreign capital flow effects on the European Union (EU) economic growth during 1987–2012 that the higher foreign direct investment (FDI) and Foreign Portfolio Investment (FPI) triggered by the European

Monetary Union (EMU) have not contributed to growth. The lack of the FDI effect is surprising as they bring enormous benefits.

Miankhel, Thangavelu and Kalirajan (2009) performed a comparative analysis for the causality relationship among GDP, export, and FDI for six countries, namely India, Pakistan, Malaysia, Thailand, Chile, and Mexico. The results from comparative analysis of this study are not the same for all countries since each country is at a different level of development and followed different policies to attain their present level of development. In the same vein Acaravci and Ozturk (2012) also analyzed the long-term relationship between Foreign Direct Investment, Export, and Economic Growth rate using the ADRL and Granger causality test with quarterly data from 1994 to 2008. The countries included in the sample are: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. They found that the three variables have long-term co-integration in four countries (the Czech Republic, Slovakia, Poland, and Latvia). Thus, Acaravci and Ozturk (2012)pointed out that Foreign Direct Investment seemed to be a more important factor in driving economic growth than export in these countries.

Hayat and Cahlik (2017) examined FDI and economic growth across countries using threshold regression model toestimate a threshold level of natural resource abundance and split the sample of 70 countries into groups of low-natural resource and high-natural resource groups. Their study found evidence that FDI has a positive impact on economic growth of the host country if the host country's natural resource sector is below the threshold. However, FDI inflow doesn't have any significant impact on growth in countries with natural resource sector larger than the threshold.

Hussain and Haque (2016) investigated the relationship between foreign direct investments, trade, and growth rate of per capita GDP for Bangladesh with the help of annual time series data for 1973 to 2014. Using VECM, the study reveals that trade and foreign investment variables have a significant impact on the growth rate of GDP per capita.

Aga (2014) study employs time series techniques to analyze the effect of foreign direct investment on economic growth in Turkey over the period 1980–2012 and concluded that there is no long-term relationship between foreign direct investment and economic growth in Turkey;

he inferred that there is no Granger causal relationship between FDI and economic growth by means of a Granger Causality (GC) test.

However, a study of the long-run and short-run relationship between worker remittances and economic growth in Pakistan during the period of 1976 to 2010 was undertaken by Khathlan (2012), adopting the autoregressive distributed lag (ARDL) test and the error correction model (ECM) techniques. The results demonstrate the existence of a positive and significant relationship between worker remittances and economic growth in the long-run and short-run in that country. Worker remittances act as an important source of foreign capital, while a significant component of Balance of Payment serves as a boom to the economy.

In Sub Saharan African studies; an attempt to investigate the impact of migrants' remittances on economic growth in sub Saharan Africa with special reference to Nigeria, Ghana and South Africa was made by Ikechi and Anayochukwu (2013). They discovered that Migrant's remittances were found to have impacted positively on the economic growth of the aforementioned economies with the greatest impact on South Africa, followed by Ghana and Nigeria. In terms of causality relationships, migrants' remittances are seen to granger cause economic growth in South Africa and Ghana, though the impact was felt more in South Africa than in Ghana. The situation was different for Nigeria, where economic growth was seen to granger cause migrants' remittance.

Malikane and Chitambara (2017) investigates the link between foreign direct investment (FDI), democracy and economic growth on a panel of eight Southern African countries for 1980–2014 using the system generalized method-of-moment (GMM) estimator. They find that FDI has a direct positive effect on economic growth and that strong democratic institutions are a significant driver of economic growth in the sample countries.

Adjaye (2009) examined the relationship between FDI and GDP growth in Ghana using annual time series data covering 1970 to 2007. The study established a positive and significant relationship between FDI and growth. The Granger causality tests confirmed a bidirectional causality running from foreign direct investment to growth. Frimpong and Oteng-Abayie (2011) disagreed with Adjaye when they explore the causal link between FDI and growth in Ghana using annual tie series data from 1970 to 2002. The results revealed that there is no directional causality between FDI and economic growth for the total sample period and the pre-SAP period.

However, they discovered a unidirectional causality from FDI to growth during the post SAP period. The conflicting results could be due to the difference in estimation techniques used. Andinuur (2013) further explore linkages between inflation, foreign direct investment and economic growth in Ghana using annual time series data covering the period 1980 to 2011. The study finds that GDP growth relates positively and negatively with foreign direct investment and inflation respectively both in the long run and short run. The study further showed bidirectional causality between GDP growth and FDI.

Oyatoye, Arogundade, Adebisi and Oluwakayode (2011) examined the possible impact and relationship between Foreign Direct Investment and Economic Growth in Nigeria. The scope covers a period of 20 years (1987 – 2006) both years inclusive. Using ordinary Least Square (OLS), the study conclude that there is a positive relationship between direct foreign investment and gross domestic product (GDP). Egwaikhide (2012) also investigates the relationship between Foreign Direct Investment (FDI) and economic growth in Nigeria between 1980-2009 through the application of Johansen Cointegration technique and Vector Error Correction method. The empirical findings revealed that the impact of FDI disaggregated into several components namely: agriculture, mining, manufacturing, telecommunication and petroleum sectors are very little with the exception of the telecom sector which has a promising future for the economy especially in the long run.

Ekwe and Inyiama (2014) determined the extent to which foreign capital flows have impacted on the growth performance of the Nigeria economy from 1982–2012. They discovered that

Foreign Capital Inflows had a positive and significant effect on economic growth as proxied by the GDP, which is an indication that foreign capital inflows exerted considerable influence as a key fiscal policy instrument of economic growth over the stated period. Also the Foreign Capital Outflow in the same vein had a positive and significant effect on the GDP, which is another indication that it exerted considerable influence as a key fiscal policy instrument of economic growth over the stated period. Furthermore, the Openness of the economy, which was another explanatory variables used to ascertain the growth performance of the economy, had a positive and significant effect on the GDP.

Umoh, Jacob, and Chuku (2012) investigated the empirical relationship between economic growth rate and FDI in Nigeria between 1970 and 2008. Their results suggest that there is a positive causal relationship between growth rate and FDI.

Osinubi and Amaghionyediwe (2010) investigated the relationship between foreign private investment (FPI) and economic growth in Nigeria for the periods 1970 – 2005 and find that FPI, domestic investment growth, net export growth and the lagged error term were statistically significant in explaining variations in Nigeria economic growth.

Awolusi (2012) investigated the long-run equilibrium relationships among the international factors and economic growth, as well as, to assess the short-term impact of inward FDI, trade and domestic investment on economic growth in Nigeria from 1970 to 2010. The results of the study revealed a short-run causal effect either running unidirectionally or bidirectionally among the variables for the country.

The reviews showed that mixed findings have trailed the literature of Foreign Direct Investment on economic growth of both developed and developing economies of the world and Africa specifically. This study will align foreign direct investment with other external sector variables to determine their effect on economic growth of emerging economies in Sub-saharan African countries.

2.3.5   Trade Integration on Economic Growth

The relationship between trade integration (openness) and economic growth have been discussed and so many empirical literatures have done to that regard. Over these years, the global trading system is becoming unified, open and competitive. Hence, the need to look at various empirical reviews on trade integration (openness) on economic growth of emerging economies in Africa;empirical studies have found a possible two-way causality in the trade–growth link, whereby countries that trade more may have higher income, while countries with higher income may be better able to afford the infrastructure conducive to trade, may have more resources with which to overcome the information search costs associated with trade, or may demand more traded goods (Kim & Lin, 2009). Zeren and Ari (2013) examined the causal relations among trade openness and economic growth for the G7 countries between 1970 to 2011. The panel causality results show a bidirectional relationship between the examined variables. Promotion in

openness increases growth in the G7 countries and subsequently the increase in growth increases openness. Andrews (2015) and Umesh and Pratikshva (2015) used a causality test and found that unidirectional causality runs from export to GDP.

Hye and Lau (2015) employed a rolling window regression and also found that the effect of openness of the economy on growth is not stable. Sokvi, Villaverde, and Maza (2015) found a positive relationship between international trade openness and income level in the long run.

Fitozová and Zidek (2015), Musila and Yiheyis (2015), Trejos and Barboza (2015) and Polat, Shahhaz, Rehman, and Satti (2015) found a positive relationship between international trade and GDP growth. A similar study (Mercan, et. al., 2013) examined the relationship between trade openness and growth for BRIC–T countries using data from 1989 to 2010. Findings derived from the panel data analysis show that the effect of openness on economic growth is positive and statistically significant according to theoretical expectations. These findings are supported by Gries and Redlin (2012), who studied the causal dynamics between trade openness and economic growth for 158 countries over the period 1970-2009. The obtained results, using panel error correction models in combination with GMM estimation, reveal a positive significant causality from openness to growth and vice versa, implying that trade liberalization is an important factor for growth in the long-run.

Dritsakis and Stamatiou (2016) explored the relationship between trade openness and economic growth using data for the thirteen newest European Union members. The study covers the period of 1995–2013. Empirical results confirm the presence of a cointegrating vector between trade openness and economic growth, in this group of the thirteen countries. The study finds that panel Granger causality analysis reveals a unidirectional causal relationship running from trade openness to economic growth, both in the short and in the long-run.

Dritsaki et al. (2004) investigated the relationship between trade, FDI, and economic growth for Greece over the period 1960–2002. Their co-integration analysis suggests that there is a long-term equilibrium relationship. Hussain and Haque (2016) also considering the role of trade integration investigated the relationship between foreign direct investments, trade, and growth rate of per capita GDP for Bangladesh with the help of annual time series data for 1973

to 2014. Using VECM, the study reveals that trade and foreign investment variables have a significant impact on the growth rate of GDP per capita.

Ulaşan (2015) used a dynamic panel data framework to conclude that trade openness measures are not robustly significantly associated with economic growth, implying that trade openness alone does not boost economic growth. Trejos and Barboza (2015) provide robust empirical evidence that trade openness is not the main engine of the Asian economic growth "miracle."

Yanikkaya (2003) tested the relationship between trade openness and economic growth of over 100 developed and developing countries using panel data from 1970 to 1997. The results show that openness to international trade does not have a simple and straightforward relationship with economic growth. The study was supported by Kurihara and Fukushima (2016), who examines whether openness of the economy promotes production diversification or production specialization and whether or not specialization/diversification spurs economic growth. The result of their study discovers and shows that greater openness of the economy does not always mean the greater economic growth in emerging and developing countries.

Herzer (2013) found that the impact of trade openness is positive for developed countries and negative for developing ones. The effect of trade liberalization on growth depends on the liberalization level. An income threshold exists above which greater trade openness has beneficial effects on economic growth and below which increased trade has detrimental consequences (Agénor, 2004; Liang, 2006).

Zahonogo (2017) investigated how trade openness affects economic growth in developing countries, with a focus on sub-Saharan Africa (SSA). The study employed dynamic growth model with data from 42 SSA countries covering 1980 to 2012. The empirical evidence indicates that a trade threshold exists below which greater trade openness has beneficial effects on economic growth and above which the trade effect on growth declines.

Nduka (2013) empirically tests whether openness leads to economic growth in Nigeria. The ordinary Least Squares (OLS) technique and data from 1970 – 2008 from CBN statistical bulletin, 2008 were employed. GDP (Economic Growth) is the dependent variable, whereas degree of openness, investment, government expenditure and lagged GDP are the independent

variables. The unit root tests show that all the variables, but lagged GDP are stationary only after first difference, and the cointegration test shows that there exists long run equilibrium between economic growth, trade openness, investment, and government expenditure in Nigeria. The study therefore reveals that openness impact significantly on economic growth in Nigeria.

Peter and Olivier (2006) investigated the impact of trade and diversification on growth in Nigeria. Their results show that in 2004, the share in GDP of imports plus exports of goods and services amounted to 86 percent in Nigeria. They found that Nigeria has enjoyed a sizable current account surplus in recent years, which according to Central Bank statistics amounted to more than 20 percent of GDP in 2004. They concluded that the impact of trade policy on productivity and investment is critical, and greater openness is generally associated with higher productivity, larger investment, and stronger growth.

Habibi (2015) also investigated the relationship between trade openness and growth for 120 countries, over the period 2000-2013, separating the data set into four subpanels according to the income classification (low, lower-middle, upper-middle and high-income economies). The results of panel error correction models show bidirectional causalities among economic growth and trade openness in all panels, except low income group. Also, unidirectional causation from trade openness to economic growth was obtained in the case of low income economies.

Chimobi (2010) investigated the causal relationship among financial development, trade openness and economic growth in Nigeria and discovered that trade openness and financial developments have causal impact on economic growth in Nigeria. Conversely, growth has causal impact on trade and financial development, implying support for growth-led trade but no support for trade-led growth.

Prabirjit (2007) investigated the link between openness and growth using cross-country panel data analysis of a sample of 51 countries of the South (LDCs) and the North (DCs) during the period of 1981 – 2002. In his panel data analysis, he found out that 11 rich and highly trade-dependent countries had higher real growth associated with a higher trade share. His time series study of individual country experiences shows that the majority of LDCs including the East Asian countries experienced no positive long-term relationship between openness and growth

during 1961 – 2002. Extending his study to cover various regions and groups shows that only the middle income group experienced a positive long-term relationship.

2.4   Summary of Literature

The aim of this study was to examine and compare the role of external sector on economic growth of Nigeria and South Africa. In doing so Chapter two provided the Conceptual and theoretical foundation as well empirical evidence for the study. In this endeavour various theories were discussed and one theory adopted. Theories discussed include the growth theory, the Solow-growth model, international trade theory, dependency theory and theory of unequal exchange; and the theory adopted is the international trade theory and theory of comparative cost advantage of Heckscher-Ohlin-Samuelson and Ricardo respectively to illustrate the possible role of external sector variables on economic growth. Theory of Unequal exchange was discussed on transaction involving two or more countries; dependency theory was also elaborated to showcase the kinds of trade relationship between countries in trade. The new theories of international trade was also discussed and the Ricardo and Heckscher–Ohlin theory were considered under the theoretical framework and finally several research works of notable authors around the world as well as locally were reviewed. From the literature reviewed of over 111, over 61.26% of the studies focused mainly on single country while 38.74% constituted comparative studies. While less than 20.93% of the comparative study focused on Africa and very few looked at the Sub-Sahara African region intently. The variables used in most cases were external debt, FDI and exchange rate mostly individually and none combine the quadruplet of external reserve, external debt, exchange rate and FDI in their study. To summarize, the existing empirical literature provides limited evidence on how the collective effort of the stock of external debt, external reserves, exchange rate, FDI and trade integration affect economic growth, particularly in Nigeria and South Africa.

Furthermore, more work is needed to explore the channels through which external sector variables in external debt, external reserves, exchange rate, FDI and trade integration affects economic growth. This study attempts to fill this gap in the literature, with special attention being paid to how external sector variables in external debt, external reserves, exchange rate, FDI and trade integration influence economic growth of Nigeria and South Africa.

2.5   Gap in Literature

From the empirical reviews, majority of the works done to examine the effect of external sector on economic growth revealed the following gaps;

i)   There were limited comparative workswithin African economic environment.

ii) To the best of researcher's knowledge, there were very limited Comparative works on the Sub-Sahara African region with its peculiarities.

iii) The variables of study for the majority of the works did not adequately capture External debt, external reserves, exchange rate, foreign direct investment and trade integration which constitute key external sector variables.

iv) The analytical methods adopted in most cases for data are basically VAR, cointegration and granger causality methods for data sharing both time series and panel data series characteristics (Ghosal, 2012), which used johansen long run cointegration technique for an India studies; Shah and Fazal (2016) conducted a VAR regression on external sector and its impact on economic growth in Pakistan; Berasaluce and Romero (2017) used VAR regression on economic growth and the external sector as evidenced from Korea and lessons for Mexico.

v)   There were clear inconsistencies and disagreements in some of the results obtained by various researchers particularly when compared with the apriori expectations (CBN, 2013; Berasaluce and Romero, 2017; Shah and Fazal, 2016).

vi) To the best of researcher's knowledge, Majority of the works consulted consider only Net external position, Trade Openness, FDI, Net Foreign Asset, Financial Integrations, Trade Integrations in assessing the extent of external sector impact on economic growth, without making considering strong parameters like external reserves, external debt, exchange rate in the Sub-Sahara African region as an external sector indicator.

This study will:

i)   Present a more current work on the subject (1986-2016) covering 31years as earlier works covered a scope of 20years to 25 years and add to existing literature.

ii) Undertake a comparative country study of Nigeria and South Africa.

iii) Use more prominent external sector measurement parameters: external reserves, external debt, exchange rate, foreign direct investment and trade integration.

iv) Use multiple regression and granger causality test for analysis of the study based on model adopted.

CHAPTER THREE
RESEARCH METHODOLOGY

This chapter contains the methodology of the research work that will be adopted for the purpose of the study. According to Baridam (2001), he states that "once the research objectives have been determined, the hypotheses formulated, and all the variables well specified, the researcher is confronted with how the data are to be collected". The content of the chapter includes the research design, nature and sources of data, population and sample size as well as techniques of data analysis. In addition, this chapter essentially contains model specification as well as a description of the variables of interest. The chapter creates a position against which analyses of data as well as drawing of conclusions will be made.

3.1   Research Design

This is the framework or plan that is used as a guide in collecting and analyzing the data for a study (Abdelah & Levine, 1979). Onwumere (2009) opines that a research design provides a blueprint that guides a researcher in carrying out the set investigation and analyses in the research work. It is a format that would guide a systematic application of the scientific method in investigation and solving of the set research problems. Nweke (1999) described that a good research design must specify the operations for the testing of a hypothesis or a group of hypotheses under a set of conditions and shall as well specify the procedures for the measuring of variables. This study would follow the empirical line in scientific research to address research issue using empirical observations and methods.

The study adopts the *ex post facto*research method which is very common and ideal method of conducting research in business and social sciences. According to Simon and Goes (2013), *ex post facto* research is one which is based on a fact or event that has already happened and at the same time employs the investigation and basic logic of enquiry like the experimental method. It is mostly used when it is not possible or acceptable to manipulate the characteristics of the variables under study. As for this work, there are two key reasons for the choice of the *ex

post facto method. Firstly, the data is secondary and is *ex post* from the World Bank, World Data Atlas and Central Banks of selected emerging African country sources. Secondly, the reported figures or proxies for the variables of interest are not susceptible to the manipulations or doctoring of the researcher because, they are information in public domain and are easily verifiable. Moreover, the work is not experimental or laboratory-based hence manipulation is not needful (Nweke, 1999). The Nigerian and South African economies is selected for comparism based on their GDP rating as the first two highest GDP economies in Africa.

3.2   Sources and Nature of Data

The data for this work were drawn from the World Bank statistical data bank, World Data Atlas, the statistical bulletin of the Central Bank of Nigeria, statistical bulletin of the Central Bank of South Africa for the range of years under study. The Gross Domestic Product from 1986 to 2017 is used as proxy for Economic Growth (Ghosal, 2012; Babu, Kiprop, Kalio & Gisore, 2014: Shah, & Fazal, 2016). The data for this study are time series.

3.3   Areas of Study

This study focuses on Nigeria (monotonous commodity economy) and South Africa (multiple commodity economy); our choice of two (2) countries sample is supported by Ayadi (2008) in his study of external sector and economic growth looking basically at external debt and its impact on economic growth of Nigeria and South Africa. This study however, looked at the interplay of external sector variables in external reserves, external debt, exchange rate, foreign direct investment and trade integration from the selected emerging economies from 1986 to 2017 representing a 32 year period covering the aspects dealing with our data for statistical analyses.Relative conditions before 1986 and those beyond 2016were covered by theoretical discussions, references to empirical works as well as deductions and generalization was based on empirical findings. The study took a sample period of 1986 to 2017 in dealing with data for the estimation and empirical analyses. The choice of 1986 was due to the fact that detailed computations of data for Nigeria and South Africa date back to 1986 and to accommodate the role of Structural Adjustment Programme (SAP). The choice of 2017 as the upper limit was due to non availability of comprehensive statistical data beyond this year in statistical sources.

3.4   Model Specification and Description of Variables

This research work adopted the model of CBN (2013), Eniekezimene and Apere (2016), Siddique, Selvanathan and Selvanathan (2015), Shah and Fazal (2016), Fapetu and Oloyede (2014), Ghosal (2012) and Nwaeze (2017) with modifications. The researchers expressed external sector indicators that influence economic growth as FINOPEN, TRADEOPEN, NFA, NEX, Financial Integration, Trade Integration, Export and Import, Consumer price index, Trade openness, Total government expenditure, Cashflow (inward and outward flows) and Oil Prices. Their models are specified as follows;

$$\log GDP_t = \alpha_0 + \alpha_1 \log FINOPEN_t + \alpha_2 \log TRADEOPEN_t + \alpha_3 \log NFA_t + \alpha_4 \log NEX_t + U_t \quad \ldots\ldots(3.1)$$

(Ghosal, 2012)

$$\log GDP_t = \alpha_0 + \alpha_1 \log FI_t + \alpha_2 \log TI_t + \alpha_3 \log NFA_t + U_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.2)$$

(Shah & Fazal, 2016)

$$NER = \alpha_0 + \alpha_1 RES + \alpha_2 RMT + \alpha_3 IRD + \alpha_4 X/M + \alpha_5 CPI + \alpha_6 TGE + \alpha_7 Po \ldots\ldots\ldots\ldots\ldots(3.3)$$

(CBN, 2013)

$$GDP = \alpha_0 + \alpha_1 CFt + \alpha_2 DBt + \alpha_3 TRt + \alpha_4 Pt + \mu i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.4)$$

(Siddique, Selvanathan & Selvanathan, 2015)

$$\ln GDP_t = \alpha_0 + \alpha_1 LnEXR + \alpha_2 LnEXD + \alpha_3 LnTRD + \alpha_4 LnFDI + U \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.5)$$

$$\ln INF_t = \beta_0 + \beta_1 LnEXR + \beta_2 LnEXD + \beta_3 LnTRD + \beta_4 LnFDI + U \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.6)$$

(Nwaeze, 2017)

Where:

FINOPEN: Financial Openness

TRADEOPEN: Trade Openness

NFA: Net Foreign Assets

NEX: Net External Position

FI: Financial Integration

TI: Trade Integration

To examine the effect of external sectors variables in external debt, FDI and external reserves (control variable) on economic growth, the granger causality method will be used,

$$(GDP)_t = \alpha + \Sigma^m_{t=1} \beta_i (GDP)_{t-1} + \Sigma^m_{t=1} \mathcal{T}_j (ExDebt)_{t-j} + U_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.7)$$

$$(ExDebt)_t = \mho + \Sigma^m_{t=1} Y_i (ExDebt)_{t-1} + \Sigma^m_{t=1} Y_j (GDP)_{t-j} + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.8)$$

$$(GDP)_t = \alpha + \Sigma^m_{t=1} \beta_i (GDP)_{t-1} + \Sigma^m_{t=1} \mathcal{T}_j (FDI)_{t-j} + U_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.9)$$

$(FDI)_t = \eth + \Sigma^m_{t=1} Y_i \, (FDI)_{t-1} + \Sigma^m_{t=1} Y_j (GDP)_{t-j} + \varepsilon_t$...(3.10)

$(GDP)_t = \alpha + \Sigma^m_{t=1} \beta_i \, (GDP)_{t-1} + \Sigma^m_{t=1} T_j (ExRev)_{t-j} + U_t$...(3.11)

$(ExRev)_t = \eth + \Sigma^m_{t=1} Y_i \, (ExRev)_{t-1} + \Sigma^m_{t=1} Y_j (GDP)_{t-j} + \varepsilon_t$...(3.12)

While to determine the relationship of the study multiple regression models was adopted for all the external sector variables and are estimated thus;

GDP = f(ExREV, ExDebt, ExR, FDI, TI) …………………………………………….3.13

The External sector indicators (namely − External Reserve (ExRev), External Debt (ExDebt), Exchange Rate (ExR), Foreign Direct Investment (FDI) and Trade Integration (TI) are the independent variables and the Gross Domestic Product (GDP) is the Dependent variable.

These models were transformed to log-linear econometric format to obtain the coefficient of the elasticity of the variables, while reducing the effect of any outliner may have. In the log-linear regression, the coefficients are easy to interpret as the problems of different units have been solved and the interpretation becomes easy in elasticity terms.

Thus;

$\log GDP_t = \alpha_0 + \alpha_1 \log ExRev_t + \alpha_2 \log ExDebt_t + \alpha_3 \log ExR_t + \alpha_4 \log FDI_t + \alpha_5 \log TI_t + U_t$ ….3.14

3.5   Techniques of Data Analyses

Several data analyses techniques was employed for the purposes of analyzing the collected data set and drawing conclusions based on them. The following analytical techniques and steps was followed:

- Diagnostic/ Standard Tests
- Test for Stationarity (Unit Root Test)
- Cointegration Test
- Regression Analyses
- Granger Causality

3.5.1   Diagnostic and Standard Tests

This is a test for the data behavior and goodness for the purposes of using them for the model estimation. This will cover basic or descriptive statistics like skewness, kurtosis, normality, mean, median, variance, standard deviation etc. the mean, median and mode would be

used to test the aggregative tendencies of the data set while variance, standard deviation, minimum and maximum would test spread and variability of the data sets.

The Jaque-Bera test for normality was conducted to confirm that the data is normally distributed. According to Jacque & Bera (1980) the null hypothesis is a joint hypothesis of the skewness being zero and the excess kurtosis being zero. Samples from a normal distribution have an expected skewness of 0 and an expected excess kurtosis of 0 (which is the same as a kurtosis of 3).

3.5.2   Test for Stationarity

In carrying out this research work, it is important to test the stationarity properties of the time series. The statistical estimation theory is based on asymptotic convergence theorems which assume that the data are stationary and do not have mean reverting characteristics. In real life and with time series data, the asymptotic assumption most often does not hold. This implies that the data are found to be non-stationary as opposed to stationarity assumption.

The problem of stationarity lies with the fact that spurious regression commonly arises where the non-stationary series are used. Analyses and decisions based on such assumption of correlation in the light of spuriousness would not be quite dependable.

This is a test of stationarity or non-stationarity in a data. By stationarity, we mean that the 'mean' and 'variance' are constant over time and the value of the covariance between the two time periods depends only on the distance or lag between the two time periods and not the actual time at which the covariance is computed. Using the Augmented Dickey Fuller (ADF) Test (Fuller, 1976; Dickey & Fuller, 1979) the model is as follows:

$Y: = Py_{t-1} + e_t$

Where P = 1

However, we regress Y_t on its (one period) lagged value Y_{t-1} and find out if estimated p is statistically equal to 1.

The Philip Peron (PP) (1988) test is different from the ADF test in that it makes provision for a drift term, time trend or structural break or shifts. It shall be used as a confirmatory test for ADF unit root test given that the model for PP most often produces the same result as the ADF (Brooks, 2008).

3.5.3 Test for Serial Correlation

In a time series or panel data model, this is correlation between the errors in different time periods. A series is said to be serially correlated where the data are correlated across time and the errors arise from adjacent time periods. It could either be positive or negative serial correlation:

$$\text{Corr}(u, u_s) \neq 0$$

A suspicion of serial correlation may be corrected using;

The Durbin-Watson (DW) Statistics: A test for first order autocorrelation, i.e. a test for whether a (residual) series is related to its immediately proceedings values. One way to motivate the test and to interpret the test statistic would be in the context of a regression of the time t error on its previous value (Durbin & Watson, 1951).

$$U_t = pu_{t-1} \quad + \quad v_t$$

Where: u_t= Error term at time t; p = Probability values; v_t= Variable at time t.

The Breusch-Godfrey Statistics: This is a joint test for autocorrelation that will allow examination of the relationship between the mean of the error term and it's lagged values at the same time. The Breusch-Godfrey test is a more general test for autocorrelation up to the rth order (Godfrey 1978, Pagan and Godfrey 1979).

3.5.4 Test for Heteroscedasticity

This is when the assumption of homoscedasticity is violated by the variables in the model. It is a situation where the variance of the error term is not constant. The presence of this error will make the regression estimators not to be best linear unbiased estimators (BLUE) any longer. Ways to correct this will include use of White tests (1980) and log-linear models (Brooks, 2014).

3.5.5 Test for Multicollinearity

This is said to exist when the same explanatory variable is inadvertently used twice in a regression and in such a case the model parameters cannot be estimated. This can be corrected by: ignoring it; dropping one of the collinear variables or by transforming the highly correlated variables (Brooks, 2014).

3.5.6   Test for Ramsey Reset Specification

Ramsey's (1969) Reset test is a general test for misspecification of functional form. It is also known as non-linearity test. It reveals a situation where the share of the regression model estimated is linear but it should have been non-linear. It is essentially a model stability tests and helps to give strong level of reliability to the results of the model.

3.5.7 Regression Analyses

The Classical Linear Regression Model (CLRM) which represents the foundational model for most higher and vigorous econometric analyses forms the most fundamental technique of data analyses for this work. The Ordinary Least Square (OLS) method was used as it captures the required robustness and flexibility required for a panel data research work. Regression analyses is basically concerned with the study of the dependence of one variable (dependent variable) on one or more other explanatory or independent variables (regressors) with the view to finding out or estimating/predicting the mean or average value of the former in terms of known or repeated values of the latter (Gujarati & Porter, 2009).

In specific terms, regression analyses explains the variation in an outcome (dependent variable) Y, as it depends on a predictor (independent explanatory) variable X. it is a correlation based test. Correlation is one of the most common and useful statistics. It describes the degree of relationship between two variables.

Its predictive power is dependent on the estimation of the relationship between X and Y variables. The accuracy of such predictive capability depends on the amount of scatter: the less the scatter, the more the predictive accuracy. Stokewell, (2008) opines that correlation and regression is used when there is an alleged linear relationship between two or more variables beyond what is expected by chance. There is a hypothesized linear relationship between external sector variables and economic growth. Essentially, the use of this econometric technique is necessitated by the fact that this work studies the dependence of Gross Domestic Growth on External Sector Variables. This implies that the regression model would use external sector variables in External Reserve (ExRev), External Debt (ExDebt), Exchange Rate (ExR), Foreign Direct Investment (FDI) and Trade Integration (TI) as a variable that explains changes in Economic growth proxied by Gross Domestic Product (GDP). Hence, External Reserve (ExRev), External Debt (ExDebt), Exchange Rate (ExR), Foreign Direct Investment (FDI) and Trade

Integration (TI) are the regressors or independent variables while Gross Domestic Product (GDP) is the dependent variable. Additionally, the following regression-based tests shall be conducted.

3.5.8 Cointegration Tests

When time series variables are non-stationary, it is interesting to see if there is a certain common trend between those non-stationary series. If two non-stationary series $X_t \sim I(1)$, $Y_t \sim I(1)$ has a linear relationship such that $Z_t = m + a.X_t + \beta.Y_t$ and $Z_t \sim I(0)$, (Z_t is stationary), then we call the two series X_t and Y_t are cointegrated.

Two broad approaches to test for the cointegration are Engel & Grange (1987) and Johansen (1988). Broadly speaking cointegration test is equivalent to examine if the residuals of regression between two non-stationary series are stationary. For Engel-Granger test, regress Y_t on X_t (or vice versa), and use the residual to see if it is stationary (unit root test described above). If it is stationary, two series X_t and Y_t cointegrated.

The Engle-Granger two-step method will be adopted to examine whether a cointegrating relation exist between external sector variables in External Reserve (ExRev), External Debt (ExDebt), Exchange Rate (ExR), Foreign Direct Investment (FDI), Trade Integration (TI) and Gross Domestic Product (GDP) in Nigeria and South Africa. The Engle-Granger method involves following steps:

The first step involves determining whether a set of data contain unit roots in the individual time series. Unit root test are used to determine whether time series exhibit mean-reverting behavior by showing their order of integration. If a pair of time series, such as External sector$_t$ and GDP$_t$, are I(1) variables, then cointegration techniques can be used to model their long-run relationship. The Augmented Dickey-Fuller (fuller, 1976; and Dickey & Fuller, 1979) and Phillips-Perron (Phillips, 1978; and Phillips & Perron, 1988) are used to examine the order of integration of External sector$_t$ and GDP$_t$. The ADF test is estimated thus:

$$\Delta Yt = \alpha o + \beta t + \alpha 1 Yt\text{-}1 + \Sigma b1 \Delta Yt\text{-}1 + \varepsilon t$$

$$I = 2$$

The null hypothesis is that Yt contains unit root, which implies that $\alpha 1 = 1$, against the alternative that the series does not contain unit root, which implies that $\alpha 1 < 1$. Dickey & Fuller (1981) provide cumulative distribution function of the ADF statistic. If the computed absolute

value of the coefficient of α1 is less than ADF critical tau values, reject the null hypothesis that α1 =1, in which case Yt does not contain unit root. Otherwise accept the null hypothesis, in which case Yt contains unit root. Phillips-Perron non-parametric test is used to confirm the result of the ADF test. The Phillip-Perron tests have two merits over ADF. Firstly, it is robust to general forms of heteroscedasticity in error term (εt). Secondly, it gives the user the latitude to specify a lag length for the test regression. The Phillips-Perron is estimated as follows:

Yt = αo + βt = α1Yt-1 + εt

The null hypothesis of the PP tests is that there is a unit root in Yt series, against the alternative hypothesis of no unit root in Yt. The decision rule of PP tests is the same with ADF. Once the order of integration of the series (External sectorvariablesand GDP) are confirmed I(1), th   e long run relationship is established by running the cointegrating regression. The residual-based unit root test is used to examine whether the residuals are stationary. If they are stationary, then the series are cointegrated. If the residuals are not stationary, there is no cointegrated.

Rejecting the null hypothesis of a unit root, therefore, is evidence in favour of cointegration (Engle & Granger, 1987; Lee, 1993). The residual-based test is estimated as follows:

Δμt = α1μt-1 + εt

Where, Δμt are the estimated first differenced residual, μt-1 are the estimated lagged residuals, α1 is the parameter of interest representing slope of the line, εt are errors obtained from the regression. If the selected external sector variables in External Reserve (ExRev), External Debt (ExDebt), Exchange Rate (ExR), Foreign Direct Investment (FDI), Trade Integration (TI) and Gross Domestic Product (GDP) are cointegrated, εt should fail a unit root test.

3.5.9   Pairwise Granger Causality Test

This is used to prove the direction of influence and the test also assumes that the information relevant to the prediction of the variable are contained only in the time series data. Generally, since the future cannot predict the past, if variables x1, x2 and x3 should precede y. Therefore, in a regression of y on the variables (including its own past values) if we include past or lagged values x and it significantly improves the predication of y, then we can say that x (Granger) causes y and vice-versa. This test is popularized by Granger (1969) who assumed that

the current values of a variable (Y) is conditioned on the past values of another (X) or the other way round. This test shows whether a bidirectional or unidirectional causality exists between the variables of interest. In this work, this test shall be adopted to confirm whether economic growth indicator granger causes foreign direct investments or foreign direct investments granger causes economic growth indicator. It may also show whether they both granger causes themselves. Specifically, it will show whether there is a causal relationship between the two and if there is, is it unidirectional or bidirectional.

The test technique is based on the following equations;

$$(Y)_t = \alpha + \Sigma^m_{t=1}\beta_i\,(Y)_{t-1} + \Sigma^m_{t=1}\Gamma_j(X)_{t-j} + U_t......(1)$$

$$(X)_t = \eth + \Sigma^m_{t=1}\Upsilon_i\,(X)_{t-1} + \Sigma^m_{t=1}\Psi_j(Y)_{t-j} + \varepsilon_t.....(2)$$

Where $U_{t\ and}\ \varepsilon_t$ are serially independent random vectors with zero mean and finite covariance matrix. Based on the estimated OLS co-efficients for the equations (1) and (2) four different hypotheses about the relationship between X and Y can be formulated:

1. Unidirectional Granger-causality from X to Y.

2. Unidirectional Granger-causality from Y to X.

3. Bidirectional (or feedback) causality.

4. Independence between X and Y. In this case there is no Granger causality in any direction.

Hence by obtaining one of these results it seems possible to detect the causality relationship between X and Y variables

The E-views statistical software will automatically determine the above listed test, and will be used basically for decision making for the research work.

3.6 Estimation of the Model

Hypothesis One (Model 1)

$$(GDP)_t = \alpha + \Sigma^m_{t=1}\beta_i\,(GDP)_{t-1} + \Sigma^m_{t=1}\Gamma_j(ExDebt)_{t-j} + U_t...(3.15)$$

$$(ExDebt)_t = \eth + \Sigma^m_{t=1}\Upsilon_i\,(ExDebt)_{t-1} + \Sigma^m_{t=1}\Psi_j(GDP)_{t-j} + \varepsilon_t..(3.16)$$

Hypothesis Two (Model 2)

$$GDP_t = \alpha_0 + \alpha_1 ExRev_t + U_t...\ (3.17)$$

Hypothesis Three (Model 3)

$$GDP_t = \alpha_0 + \alpha_1 ExR_t + U_t \ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.(3.18)$$

Hypothesis Four (Model 4)

$$(GDP)_t = \alpha + \Sigma^m_{t=1}\beta_i\,(GDP)_{t-1} + \Sigma^m_{t=1}\mathcal{T}_j(FDI)_{t-j} + \mathcal{U}_t\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(3.19)$$

$$(FDI)_t = \mho + \Sigma^m_{t=1}Y_i\,(FDI)_{t-1} + \Sigma^m_{t=1}\mathcal{Y}_j(GDP)_{t-j} + \varepsilon_t\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(3.20)$$

Hypothesis Five (Model 5)

$$GDP_t = \alpha_0 + \alpha_1 TI_t + U_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots\ldots\ldots\ldots\ldots\ldots..(3.21)$$

Where: **GDP =** Gross Domestic Products and it refers to the level of economic and financial activities or transactions brought into an economy through the activities of the external sector variables (Desai, 2006).

ExDebt = External Debt is the financial obligation that ties ones party (debtor country) to another (lender country) (Adepoju, Salau, & Obayelu, 2007).

ExRev= External Reserve is a means by which a nation can manage its exchange rate and also act as a guarantor for external debt (CSEA, 2016).

ExR = Exchange Rate is viewed as the total unit of a nations' currency that can acquire the unit of another nation's currency. For the purpose of this study a nations' currency that acquire the unit of a dollar.

FDI= Foreign Direct Investments and refers to the volume of foreign capitals inflow into a domestic company by foreign investors and institutions for investment activities

TI = Trade Integration is the ease in trade across countries and the ratio of the mix of import and export to GDP (Sinha & Sinha, 2001).

3.7 Apriori Expectation

The aprior expectations adopted the CBN findings (2013), Shah and Fazal (2016) and Ghosal (2012) which all stated a positive significant relationship between the external sector parameters and the Economic growth proxied by Gross Domestic Product. Thus, external reserves, external debt, FDI, trade integration and exchange rate are expected to have positive impact on the GDP.

The findings of the study are compared in a summarized table format after individual country explanations to show how the external sector variables affected economic growth in the two countries and how they all comply with the apriori expectations.

CHAPTER FOUR
PRESENTATION AND ANALYSIS OF DATA

This chapter presents the datasets collected and collated from the World Bank statistical database, International Monetary Fund (IMF), National Bureau of Statistics and the statistical bulletins of Central banks of Nigeria and South Africa for the periods under study (1986-2016). The datasets are presented in tabular forms for the purposes of clarity. In addition, the results of various econometric and statistical methods of estimations adopted in line with the objectives and aforementioned methodology of this work are also contained in this chapter. The tests of the formulated equations and hypotheses are also presented with conclusions drawn against the backdrop of the formulated models and apriori expectations. The various diagnostic, standard and validity tests conducted are shown with the main aim of vouching for the reliability of the used datasets and estimated models.

4.2   Data Presentation
4.2.1   Data Presentation for Nigeria's Economic growth and External sector Variables
Table 4.1: NIGERIA's GDP and Selected External Sector Variables between 1986 –2016

Year	(NIG) ExtRes $	(NIG) ExtDebt $	(NIG) FDI $	(NIG) ExRate $	(NIG) TradInt $	(NIG) GDP $
1986	-388,000,000	22,215,776,300	193,214,908	2.0206	0.085	112,071,000,000
1987	-4,000,000	29,024,888,800	610,552,091	4.0179	0.124	102,575,000,000
1988	506,000,000	29,624,121,300	378,667,098	4.5367	0.109	114,173,000,000
1989	-1,181,000,000	30,121,971,700	1,884,249,739	7.3916	0.107	126,283,000,000
1990	-2,301,000,000	33,458,311,200	578,882,971	8.0378	0.118	180,720,000,000
1991	-565,000,000	33,527,007,200	712,373,362	9.9095	0.124	188,790,000,000
1992	3,773,000,000	28,979,073,000	896,641,282	17.2984	0.203	107,320,000,000
1993	-617,000,000	30,699,253,800	1,345,368,587	22.0511	0.109	205,190,000,000
1994	1,700,000,000	33,092,286,500	1,959,219,858	21.9	0.092	210,090,000,000
1995	1,400,000,000	34,094,440,000	1,079,271,551	70.4	0.115	218,490,000,000

1996	4,100,000,000	31,414,750,000	1,593,459,222	69.8	0.121	231,490,000,000
1997	7,600,000,000	28,467,510,000	1,539,445,718	71.8	0.125	242,250,000,000
1998	7,100,000,000	30,313,711,600	1,051,326,217	76.8	0.093	250,990,000,000
1999	5,500,000,000	29,095,542,800	1,004,916,719	92.3	0.101	256,160,000,000
2000	9,900,000,000	32,374,085,600	1,140,137,660	101.7	0.119	276,450,000,000
2001	10,400,000,000	31,418,236,900	1,190,632,024	111.9	0.117	301,600,000,000
2002	7,700,000,000	31,780,096,000	1,874,042,130	121.0	0.097	350,950,000,000
2003	7,500,000,000	36,711,575,600	2,005,390,033	129.4	0.126	391,960,000,000
2004	14,710,000,000	39,898,100,000	1,874,033,035	133.5	0.133	444,800,000,000
2005	28,280,000,000	25,754,638,300	4,978,260,025.9	132.15	0.182	491,280,000,000
2006	42,970,000,000	9,516,236,000	4,897,810,000.0	128.65	0.176	540,440,000,000
2007	51,330,000,000	12,029,630,000	6,086,730,000.0	125.83	0.192	595,420,000,000
2008	60,120,000,000	13,027,758,100	8,248,640,000.0	118.53	0.234	650,810,000,000
2009	44,760,000,000	15,859,313,600	8,649,526,666.7	148.90	0.15	718,866,000,000
2010	43,360,000,000	15,416,330,000	6,098,960,000.0	149.74	0.192	800,185,000,000
2011	35,210,000,000	17,416,330,000	8,914,890,000.0	153.85	0.226	856,620,000,000
2012	46,410,000,000	18,810,320,000	7,127,380,000.0	157.50	0.197	909,730,000,000
2013	47,700,000,000	21,615,716,400	5,608,462,733.3	157.31	0.181	974,290,000,000
2014	36,900,000,000	26,858,200,000	4,693,828,631.9	158.55	0.161	1,054,310,000,000
2015	28,760,000,000	10,700,000,000.0	3,064,168,904.5	196.49	0.113	1,093,920,000,000
2016	27,000,000,000	11,400,000,000	4,448,732,916.7	253.5	0.127	1,091,230,000,000

Source*: World Bank data 2016; World Data Atlas 2017, Central Bank of Nigeria, 2016; Knoema 2017; Index Mundi 2017.*

Comments

Table 4.1 shows the trend in the various variables used to measure the external sectors in External Reserves (EXTRES), External Debt (EXTDEBT), Exchange Rate (EXRATE), Foreign Direct Investment (FDI), Trade Integration (TRADINT) and Gross Domestic Product (GDP) for Nigeria from 1986 to 2016 (a 31 year period).

The table 4.1 shows that the EXTRES started with a negative $-388,000,000 in 1986 and a high EXTDEBT of $22,215,776,300 and low FDI of $193,214,908 with EXRATE was 2.0206. However, over the years the EXTRES grew over the years to $506,000,000 in 1988 before falling further to $-2,301,000,000 in 1990. In 1992, the Reserves appreciated from negative to positive $3,773,000,000 but was depleted again in 1993 to $-617,000,000. This period had both EXTDEBT and EXRATE increasing rapidly from the base year figures to $30,699,253,800 and 22.0511 naira to a dollar. The FDI had a fluctuating position as they fall and rise repeatedly to $1,345,368,587 as at 1993. The GDP was however on the slow growth path as most of the external reactions barely trigger it to fluctuate/grow from the base study year of $107,699,000,000 in 1984 to $205,190,000,000 in 1993. In 1994, external reserves ended up on a

high $1,700,000,000 which accommodated an increased debt structure in $33,092,286,500 with an improved exchange rate and FDI of 21.9 and $1,959,219,858 respectively and economic growth (GDP) of $210,090,000,000. However, from 1995 to 2001, external reserves appreciated with slight falls in 1999 and a corresponding fall was also experienced in external debt and FDI but exchange rate continue to increase across board. By 2002 and 2003, external reserves were depleted but FDI and external debt moved up with exchange rate and GDP.

From 2004 to 2008, the external reserves move up to all time high of $60,120,000,000 with a reduced external debt of $13,027,758,100 and appreciating exchange rate and FDI of 118.53 naira to a dollar and $8,248,640,000.0 respectively. The GDP also responded positively by improving continuously to $650,810,000,000. This complies with our apriori expectations and findings of some reviewed literature.

However, from 2009 to 2016 the external reserves fell continuously to $27,000,000,000 with a corresponding fall in FDI to $4,448,732,916.7. The external debt increased during this period but fell in 2015 and increased again in 2016. Exchange rate and GDP has however been on a free increase to the end of study period.

4.2.2   Data Presentation for South Africa's Economic growth and External sector Variables
Table 4.2: South Africa's GDP and Selected External Sector Variables between 1986 –2016

Year	(SA) ExtRes $	(SA) ExtDebt $	(SA) FDI $	(SA) ExRate $	(SA) TradInt $	(SA) GDP $
1986	2,254,162,464	0	-50,487,074	104.3	0.181	189,570,000,000
1987	3,462,962,832	0	-191,667,970	117.7	0.219	198,500,000,000
1988	2,203,670,974	0	158,437,159	111.2	0.223	214,070,000,000
1989	2,194,854,116	0	-201,208,431	111.6	0.203	227,720,000,000
1990	2,582,983,162	0	-75,722,412	114.7	0.205	235,400,000,000
1991	3,186,551,429	0	254,133,622	119.4	0.196	240,750,000,000
1992	3,207,728,532	0	3,358,018	123.4	0.21	240,980,000,000
1993	2,879,214,933	0	11,290,546	121.1	0.211	249,760,000,000
1994	3,294,868,537	21,671,000,000	374,410,441	115.9	0.217	263,320,000,000
1995	4,463,556,744	25,357,998,100	1,248,424,933	112.7	0.245	277,190,000,000
1996	2,341,014,437	26,050,000,000	816,389,274	103.7	0.235	294,400,000,000
1997	5,957,312,958	30,071,801,900	3,810,543,923	109.5	0.233	307,370,000,000
1998	5,508,053,978	24,778,637,300	550,338,596	100.6	0.216	312,310,000,000
1999	7,496,680,029	24,536,864,800	1,503,332,454	95.1	0.198	324,570,000,000
2000	7,702,061,615	25,435,195,400	968,831,356	92.1	0.203	345,570,000,000
2001	7,626,856,966	24,603,875,300	7,270,344,986	81.3	0.184	363,300,000,000
2002	7,816,784,147	33,719,580,000	1,479,804,589	69.4	0.105	382,410,000,000
2003	8,154,088,985	37,138,450,000	783,136,092	90.2	0.224	401,530,000,000

2004	14,886,244,244	43,181,220,000	701,422,008	97.6	0.271	431,370,000,000
2005	20,624,461,669	44,736,850,000	6,522,098,178	98.90	0.292	468,740,000,000
2006	25,593,361,010	59,381,330,000	623,291,744	94.90	0.321	510,220,000,000
2007	32,919,404,063	72,596,570,000	6,586,792,253	89.30	0.346	551,870,000,000
2008	34,070,371,702	69,960,360,000	9,885,001,293	79.40	0.36	580,650,000,000
2009	39,602,673,636	79,017,430,000	7,624,489,974	86.60	0.285	576,060,000,000
2010	43,819,537,260	108,392,000,000	3,693,271,715	100.00	0.35	600,830,000,000
2011	48,748,267,722	116,929,000,000	4,139,289,123	97.90	0.395	633,370,000,000
2012	50,688,078,607	144,959,000,000	4,626,029,122	92.60	0.205	659,310,000,000
2013	49,708,176,471	139,245,000,000	8,232,518,816	82.80	0.343	686,640,000,000
2014	49,121,577,906	144,006,000,000	5,791,659,020	77.60	0.317	710,810,000,000
2015	45,887,064,632	131,700,000,000	1,575,170,030	77.20	0.27	727,790,000,000
2016	47,180,123,831	129,700,000,000	2,250,190,584	71.5	0.284	739,420,000,000

Source*: World Bank data 2016; World Data Atlas 2017, South Africa Reserve Bank, 2016; Statistics South Africa, 2016; Knoema 2017; Index Mundi 2017.*

Comments:

Table 4.2 shows the trend in the various variables for the country of SOUTH AFRICA used to measure external sector in external reserves (EXTRES), external debt (EXTDEBT), exchange rate (EXRATE), Foreign Direct Investment (FDI), Trade Integration (TRADINT) and Gross Domestic Product (GDP) from 1986 to 2016.

The table 4.2 shows that the external reserves started on a high level of $2,254, 162,464 in 1986 with a corresponding high FDI and GDP in $-50,487,074 and $189,750,000,000. The external debt position was unknown as no international and South African financial institution made available any information concerning external debt position till 1994. The external reserves have grown to $3,294,868,537 and external debt position was known to be $21,671,000,000 in 1994. The GDP also appreciated to $263,320,000,000 however the exchange rate which started on a high fell through to 115.9 rand to a dollar in 1994.

Hence, the external reserves and external debt grew from $4,463,556,744 and $25,357,998,100 in 1995 to $20,624,461,669 and $44,736,850,000 at over 460% and 170% growth rate respectively but exchange rate fell to 98.90 rand to a dollar. We observed that GDP has been on a steady growth path till the end of the study period. However, FDI growth in South Africa has not been consistent, having moved from $1,248,424,933 in 1995 to $6,522,098,178 in 2005 and down to $3,693,271,715 in 2010 before moving up to $8,232,518,816 and finally falling to $2,250,190,584 in 2016. This trend is consistent with our aprior expectation and findings of some of the reviewed literature.

The exchange rate fell and rose repeatedly over time and ended at 71.5 rand to a dollar in 2016. Trade integration showed no sign of significant movement in its trends. However, the external debt structure continues to rise from 2005 to the end of study period in 2016 at $129,700,000,000.

4.3 Data Analysis
4.3.1 Descriptive Statistics and Test for Normality
The descriptive statistics was done using the Jarque-Bera Normality test and requires that for a series to be normally distributed; the histogram should be bell-shaped and the Jarque-Bera statistics would not be significant. This implies that the p-value given at the bottom of the normality test table should be greater than the chosen level of significance to accept the Null hypothesis, that the series is Normally distributed (Brooks, 2014).

Table 4.3:   Descriptive Statistics for Nigeria Data

	NIG(GDP)$	NIG (EXTRES)$	NIG (EXTDEBT)$	NIG (EXRATE)$	NIG (FDI)$	NIG (TRADINT)$
Mean	4.34E+11	1.72E+10	2.52E+10	89.64807	2.92E+09	0.143909
Median	2.76E+11	7.60E+09	2.90E+10	101.6500	1.87E+09	0.125000
Maximum	1.09E+12	6.01E+10	3.99E+10	253.5000	8.91E+09	0.234000
Minimum	1.03E+11	-2.30E+09	9.52E+09	0.764942	1.89E+08	0.085000
Std. Dev.	3.28E+11	1.96E+10	8.53E+09	67.89143	2.69E+09	0.043089
Skewness	0.818875	0.737276	-0.402900	0.173245	0.945487	0.583478
Kurtosis	2.275660	2.024974	1.911924	2.220039	2.570816	2.023718
Jarque-Bera	4.409477	4.296851	2.520684	1.001544	5.169978	3.183007
Probability	0.110279	0.116668	0.283557	0.606063	0.075397	0.203619
Sum	1.43E+13	5.69E+11	8.31E+11	2958.386	9.64E+10	4.749000
Sum Sq. Dev.	3.44E+24	1.23E+22	2.33E+21	147495.9	2.31E+20	0.059413
Observations	31	31	31	31	31	31

Source: Computation by researcher using E-view 9.5

The descriptive statistics in table 4.3 shows the basic aggregative averages like mean, median and mode for all the observations. The spread and variations in the series are also indicated using the standard deviation. Significantly, kurtosis which shows the degree of peakedness is also shown together with the skewness which is a reflection of the degree of or departure from symmetry of the given series. With all the variables showing an average kurtosis$\leq$3; there is evidence that they are all platykurtic with about half of the variables showing

Jarque-Bera statistics of p-values at approximatelyabove 5% level of significance indicates a normal distribution.

Table 4.4:   Descriptive Statistics for South Africa Data

	SA (GDP)$	SA (EXTRES)$	SA (EXTDEBT)$	SA (EXRATE)$	SA (FDI)$	SA (TRADINT)$
Mean	4.03E+11	1.79E+10	4.72E+10	100.0606	2.45E+09	0.245970
Median	3.46E+11	7.63E+09	2.61E+10	98.90000	9.69E+08	0.223000
Maximum	7.39E+11	5.07E+10	1.45E+11	148.8000	9.89E+09	0.395000
Minimum	1.82E+11	1.90E+09	0.000000	69.40000	-4.53E+08	0.105000
Std. Dev.	1.84E+11	1.87E+10	4.96E+10	17.36958	2.97E+09	0.065328
Skewness	0.503842	0.768627	0.852464	0.386954	1.033304	0.483985
Kurtosis	1.825506	1.857009	2.339408	3.226134	2.748823	2.715123
Jarque-Bera	3.292940	5.045669	4.596851	0.893846	5.959190	1.399915
Probability	0.192729	0.080232	0.100417	0.639593	0.050813	0.496606
Sum	1.33E+13	5.90E+11	1.56E+12	3302.000	8.09E+10	8.117000
Sum Sq. Dev.	1.08E+24	1.11E+22	7.87E+22	9654.479	2.82E+20	0.136569
Observations	31	31	31	31	31	31

Source: Computation by researcher using E-view 9.5

The descriptive statistics for South Africa indicates that over 80% of the variables show an average kurtosis ≤ 3, indicating platykurtic characteristics while the rest below 20% are above 3, showing leptokurtic characteristics (fat tail). The variables that show Jarque-Bera statistics of p-values in excess of the 5% level of significance, indicating an outlier in distribution will be corrected through either data differencing, log transformation or addition of dummy variables or even dropping of variables in the models to improve our R^2; while GDP and EXTRES are also normally distributed.

4.3.2 Diagnostic Tests

The aim here is to carry out various diagnostic tests to ensure that our data and model used in this research work conforms to the basic assumptions of the classical linear regression. This will ensure that the output of this process is not error prone and is reliable.

4.2.2.1:   Test for Stationarity

The test for stationarity requires that the variables in the series model must be stationery at a given level and p-value must be significant at that level. Stationarity is attained where the test statistics is most negative and greater than the critical value of the chosen level of significance.

Table 4.5:   Unit Root Tests for Nigeria Data

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
D(GDP)	-6.012342	-3.215267	0.0001	I(1)
D(EXTRES)	-3.999563	-3.215267	0.0193	I(1)

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
D(EXTDEBT)	-4.916653	-3.215267	0.0022	I(1)
D(EXRATE)	-3.559722	-3.215267	0.0503	I(1)
D(FDI)	-6.641264	-3.215267	0.0000	I(1)
D(TRADINT)	-6.984578	-3.215267	0.0000	I(1)

Source: Computation by researcher using E-view 9.5

The stationarity outcome in table 4.5 reports that the tests for stationarity properties of the series (all the variables) following the Augmented Dickey Fuller (ADF) statistics were found to be stationery at order one (1). At the First difference as reported, the ADF Statistics for the respective variables were all negative than the critical values at 5% significance level. The reported P-values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit root in all the variables is convincingly rejected. For the purposes of Cointegration analysis and tests, it is also interesting to state that the variables are all integrated of the same order.

Table 4.6:   Unit Root Tests for South Africa Data

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
D(GDP)	-5.198046	-3.221728	0.0012	I(2)
D(EXTRES)	-9.575039	-3.218382	0.0000	I(2)
D(EXTDEBT)	-4.834616	-2.619160	0.0005	I(1)
D(EXRATE)	-6.160319	-2.619160	0.0000	I(1)
D(FDI)	-6.355937	-3.221728	0.0001	I(1)
D(TRADINT)	-6.501314	-3.218382	0.0000	I(1)

Source: Computation by researcher using E-view 9.5

The table 4.6 result reports that the tests for stationarity properties of all the variables following the Augmented Dickey Fuller (ADF) statistics are found to be stationery at order one (1) except for GDP and EXTRES that were stationary at order two (2). At the First and Second difference as reported, all the ADF Statistics for the respective variables were negative than the critical values at 5% significance level. The reported P-values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit root in all the variables is convincingly rejected. For the purposes of Cointegration analysis and tests, it is also interesting to state that the variables are all integrated of the same order.

4.2.2.2   Test for Serial Correlation – Breusch-Godfrey (BG) Tests

The Breusch-Godfrey tests was used to test for the presence or absence of serial or autocorrelations in the model with the Null hypothesis stating that there is No autocorrelation. This holds if p-value is greater than the chosen level of significance otherwise reject.

Table 4.7:   Breusch-Godfrey Serial Correlation Test – Nigeria

Breusch-Godfrey Serial Correlation LM Test:

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F-statistic	1.085064	Prob. F(2,22)	0.3553
Obs*R-squared	2.693566	Prob. Chi-Square(2)	0.2601

Source: Computation by researcher using E-view 9.5

From table 4.7, the p-value is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model. This is further enhanced with a Durbin-Watson statistics of 1.85005. Hence, we do not suspect any violation of the assumptions of classical linear regression. The applicable treatment was to lag the variables by minus four (-2) periods.

Table 4.8:   Breusch-Godfrey serial correlation Test for South Africa

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.699440	Prob. F(2,19)	0.2094
Obs*R-squared	4.097070	Prob. Chi-Square(2)	0.1289

Source: Computation by researcher using E-view 9.5

From table 4.8, the p-value of 20.94% is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model for South Africa. This was arrived at after treating the variables at one (1) period lag.

4.2.2.3   Test for Heteroskedasticity (Arch)

Heteroskedasticity is a result where the variance of the errors is not constant while, the assumption of the classical linear regression that the variance of the errors is constant is known as *Homoskedastycity*. Hence, we test for the presence of heteroskedasticity with the intention of treating same if found. The treatment method adopted here is the Autoregressive conditionally Heteroscedastic test known as ARCH. The Null hypothesis states that there is no Heteroscedasticity if the p-value is greater than the level of significance (Brooks, 2014).

Table 4.9:   Heteroskedasticity Result for Nigeria

Heteroskedasticity Test: ARCH			
F-statistic	2.137447	Prob. F(1,27)	0.1553
Obs*R-squared	2.127364	Prob. Chi-Square(1)	0.1447

Source: Computation by researcher using E-view 9.5

The null hypothesis states that there is No heteroskedasticity if p-value is not significant and is greater than the chosen level of significance of 5%. Hence, table 4.9 results prove that we accept the Null hypothesis that there is no evidence of heteroskedasticity since p-value is greater than 5% significance level in Nigeria.

Table 4.10:   Heteroskedasticity Result for South Africa

Heteroskedasticity Test: ARCH			
F-statistic	0.039069	Prob. F(1,24)	0.8450
Obs*R-squared	0.042256	Prob. Chi-Square(1)	0.8371

Source: Computation by researcher using E-view 9.5

The statement of null hypothesis which states that there is No heteroskedasticity if p-value is not significant and is greater than the chosen level of significance of 5% will be accepted because table 4.10 results prove that the Null hypothesis has no evidence of heteroskedasticity since p-value is greater than 5% significance level.

4.2.2.4: Test for Multi-collinearity
Table 4.11:   Correlation Matrix for Nigeria

	NIG (GDP)$	NIG (EXTRES)$	NIG (EXTDEBT)$	NIG (EXRATE)$	NIG (FDI)$	NIG (TRADINT)$
NIG (GDP)$	1	0.8259829548848078	-0.6023604689720395	0.8979784831365054	0.7811533498085535	0.3948980414626031
NIG (EXTRES)$	0.8259829548848078	1	-0.7023426270026625	0.7440793387600444	0.9255833955229738	0.6395415558616622
NIG (EXTDEBT)$	-0.6023604689720395	-0.7023426270026625	1	-0.4547685919920546	-0.6401133156992571	-0.5813581128635045
NIG (EXRATE)$	0.8979784831365054	0.7440793387600444	-0.4547685919920546	1	0.6883653971993349	0.2509512404885064
NIG (FDI)$	0.7811533498085535	0.9255833955229738	-0.6401133156992571	0.6883653971993349	1	0.6377997782960918
NIG (TRADINT)$	0.3948980414626031	0.6395415558616622	-0.5813581128635045	0.2509512404885064	0.6377997782960918	1

Source: Computation by researcher using E-view 9.5

From the correlation matrix table 4.11, the result indicates significant correlation between GDP and all the external sector variables at maximum of 89.80% and Minimum of 25.09% respectively. Similarly, significant correlation is observed between GDP and EXTRES (82.60%), EXTDEBT (60.23%), EXRATE (89.80%), FDI (78.12%) and TRADINT (39.49%).

Table 4.12:   Correlation Matrix for South Africa

	SA (GDP)$	SA (EXTRES)$	SA (EXTDEBT)$	SA (EXRATE)$	SA (FDI)$	SA (TRADINT)$
SA (GDP)$	1	0.9677671907887456	0.9704614389819592	-0.7562129365112015	0.6652442199963991	0.7104313437446356
SA (EXTRES)$	0.9677671907887456	1	0.9731673523020744	-0.6278752212535386	0.6589149965620841	0.743226263243324
SA (EXTDEBT)$	0.9704614389819592	0.9731673523020744	1	-0.673867570298146	0.6062443982914999	0.6662403998586532

	-	-	-		-	-
	0.75621293651	0.62787522125	0.67386757029		0.56718262643	0.31717056632
SA (EXRATE)$	12015	35386	8146	1	63146	60088
				-		
	0.66524421999	0.65891499656	0.60624439829	0.56718262643		0.60244611991
SA (FDI)$	63991	20841	14999	63146	1	87951
SA				-		
(TRADINT)$	0.71043134374	0.74322626324	0.66624039985	0.31717056632	0.60244611991	
	46356	3324	86532	60088	87951	1

Source: Computation by researcher using E-view 9.5

From the correlation matrix table 4.12, the result indicates significant correlation between GDP and all the external sector variables at maximum of 97.32% and Minimum of 31.71% respectively. Similarly, significant correlation is observed between GDP and EXTRES (96.77%), EXTDEBT (97.05%), EXRATE (75.62%), FDI (66.52%) and TRADINT (71.04%).

4.2.2.5 Test for Ramsey Reset Specification

Ramsey Reset specification test is a stability diagnostic test and was proposed by Ramsey (1969) as a general functional form misspecification test i.e. Regression Specification Error Test (RESET), which hasproven to be useful. The Reset test is a general test for the following type of specification errors:

a) Omitted Variables

b) Incorrect Functional form

c) Correlation between variables which may be caused by measurement error, simultaneous equation combination, combination of lagged values and serially correlated disturbances.

The Reset test is a non-linearity test, or a misspecification of functional form that is a situation where the shape of the regression model estimated is incorrect – for instance, where the model estimated is linear but it should have been non-linear (Brooks, 2014).

The Null hypothesis holds that where the p-value of the test statistics is greater than the level of significance, the result is not significant and the regression model is linear, otherwise we reject the Null hypothesis and accept the Alternative hypothesis that the relationship is significant and the regression model is non-linear. The result for the test is usually presented in the first upper box of the first three rows.

Table 4.13:   Ramsey Reset Specification – Nigeria Data

Ramsey RESET Test
Equation: UNTITLED

Specification: NIG (GDP)$ NIG (EXRATE)$ NIG (EXTDEBT)$ NIG (EXTRES)$ NIG (FDI)$ NIG (TRADINT)$ (NIG (GDP)$(-3)) C			
Omitted Variables: Squares of fitted values			
	Value	Df	Probability
t-statistic	0.095769	22	0.9246
F-statistic	0.009172	(1, 22)	0.9246
Likelihood ratio	0.012504	1	0.9110

Source: Computation by researcher using E-view 9.5

The Ramsey reset result for Nigeria showed p-values in table 4.13 for t and F-statistics to be greater than the 10% significance level at 92% and 92% respectively indicating that the test statistics are not significant at the 5% level of significance. Hence, we accept the Null hypothesis that the regression model for Nigeria is linear. Thus, the output from this model testing provides a best fit and can be relied upon thereby accepting the results from such research testing.

Table 4.14:   Ramsey Reset Specification - South Africa Data

Ramsey RESET Test			
Equation: UNTITLED			
Specification: SA (GDP)$ SA (EXRATE)$ SA (EXTDEBT)$ SA (EXTRES)$ SA (FDI)$ SA (TRADINT)$ (SA (GDP)$(-5)) C			
Omitted Variables: Squares of fitted values			
	Value	Df	Probability
t-statistic	3.092990	20	0.0057
F-statistic	9.566586	(1, 20)	0.0057
Likelihood ratio	10.94555	1	0.0009

Source: Computation by researcher using E-view 9.5

The Ramsey reset result for South Africa showed p-values in table 4.14 for t and F-statistics to be less than the 5% significance level at 0.0057 and 0.0057 respectively indicating that the test statistics are significant at the 5% level of significance. Hence, we reject the Null hypothesis that the regression model for South Africa is non-linear.

4.2.2.6   Tests for Co-integration

Cointegration is used in Finance to model long-run equilibrium relationship (Brooks, 2014) and this is further supported by Woolbridge (2006). Cointegration methods have been used in several established researches to test for long-run equilibrium relationship (Levine & Zervos, 1998 and Soumare & Tchana, 2015). These form the basis for our adoption of cointegration method to test for the existence of long-run equilibrium relationship before we can proceed with our regression analysis.

i.)   Individual Country Cointegration Tests

Table 4.15:   Cointegration Test Result for Nigeria @ 5% level (Trace Statistics)

Date: 09/21/17   Time: 11:17
Sample (adjusted): 1986 2016
Included observations: 31 after adjustments

Trend assumption: Linear deterministic trend
Series: NIG (GDP)$ NIG (EXTRES)$ NIG (EXTDEBT)$ NIG (EXRATE)$ NIG (FDI)$ NIG (TRADINT)$
Lags interval (in first differences): 1 to 1
Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.875352	153.0798	95.75366	0.0000
At most 1 *	0.638015	88.52973	69.81889	0.0008
At most 2 *	0.526419	57.02901	47.85613	0.0054
At most 3 *	0.475489	33.85864	29.79707	0.0161
At most 4	0.233617	13.85466	15.49471	0.0870
At most 5 *	0.165441	5.606408	3.841466	0.0179

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Computation by researcher using E-view 9.5

The cointegration result for Nigeria in table 4.15 of the trace tests shows the existence of five (5) of the six (6) cointegrating vectors (p-value of 0.0000 and0.0179for trace test) between GDP and external sector variables at the 5% level of significance. This thus confirms the existence of long-run equilibrium (cointegrating) effect of External sector variables on GDP (economic growth) in Nigeria.

Table 4.16: Cointegration Result for South-Africa data @ 5% level (Trace Statistics)

Date: 09/21/17   Time: 11:38
Sample (adjusted): 1986 2016
Included observations: 31 after adjustments
Trend assumption: Linear deterministic trend
Series: SA (GDP)$ SA (EXTRES)$ SA (EXTDEBT)$ SA (EXRATE)$ SA (FDI)$ SA (TRADINT)$
Lags interval (in first differences): 1 to 1
Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.620629	92.22734	95.75366	0.0853
At most 1	0.555285	62.18090	69.81889	0.1746
At most 2	0.402992	37.06095	47.85613	0.3447
At most 3	0.340600	21.07038	29.79707	0.3533
At most 4	0.186677	8.161199	15.49471	0.4483
At most 5	0.055063	1.755753	3.841466	0.1852

Trace test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level

Source: Computation by researcher using E-view 9.5

The cointegration result for South Africa in table 4.16 of the trace tests shows the existence of no cointegrating vectors between GDP and external sector variables at the 5% level of significance. This thus confirms the existence of no long-run equilibrium (cointegrating) effect of External sector variables on GDP (economic growth) for South Africa.

Table 4.17:   Comparism of Co-integration result

No. of CE(s) Nig	Statistic	Prob.**	No. of CE(s) SA	Trace Statistic	Prob.**
None	153.0798	0.0000	None	92.22734	0.0853

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At most 1	88.52973	0.0008	At most 1	62.18090	0.1746
At most 2	57.02901	0.0054	At most 2	37.06095	0.3447
At most 3	33.85864	0.0161	At most 3	21.07038	0.3533
At most 4	13.85466	0.0870	At most 4	8.161199	0.4483
At most 5	5.606408	0.0179	At most 5	1.755753	0.1852

Source: Computation by researcher using E-view 9.5

From the table 4.17, the result extablished that the external sector variables in Nigeria showed the presence of a long run relationship in the study. While in South Africa, the external sector variables prove that there was no long run relationship with economic growth. Thus, the external sector is significantly related to the economic growth in the long run in Nigeria while in South Africa, the external sector is not significantly related in the long run. Hence, external sector thus will affect economic growth in the long run in Nigeria while the external sector variables for South Africa will have no significant impact in the long run.

4.3   Test of Hypothesis

This Sub-section tests the hypotheses stated in chapter one and modelled in chapter three. In testing for these hypotheses, we proceeded to test the data for each country in the study area, to ascertain what the individual country result is;

4.3.1   Test of Hypothesis One (1)

Ho_1:   External Debthas no significant effect on Economic Growth in Nigeria and South Africa economies.

HA_1:   External Debt has significant effect on Economic Growth in Nigeria and South Africa economies.

Table 4.18:   Granger Causality result for Hypothesis One (South Africa)

Pairwise Granger Causality Tests Date: 03/02/18 Time: 17:30 Sample: 1986 2016 Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
EXTDEBT does not Granger Cause GDP	29	2.55739	0.0968
GDP does not Granger Cause EXTDEBT		4.49386	0.0211

Source: Computation by researcher using E-view 9.5

In table 4.18, the granger causality between external debt and economic growth variables showed that external debt have no granger effect on economic growth with F-statistic of 2.55739 showing probability value of 0.0968 which is more than the critical value confirm the direct

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insignificant effect of external debt on GDP. The GDP however showed a high f-statistics of 4.4386 with probability of 0.0211 proving that external debt was affected by the economic growth position within the same period under consideration. Thus, there is a uni-directional granger relationship from economic growth to external debt without a granger causing effect from external debt to economic growth in South Africa. Thus, the null hypothesis which states that external debts have no significant effect on economic growth is accepted thereby rejecting the alternative result which state that external debt have a significant effect on economic growth in South Africa.

Table 4.19:   Granger Causality result for Hypothesis One (Nigeria)

Pairwise Granger Causality Tests Date: 03/02/18 Time: 17:43 Sample: 1986 2016 Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
EXTDEBT does not Granger Cause GDP	29	0.16998	0.8446
GDP does not Granger Cause EXTDEBT		4.40770	0.0225

Source: Computation by researcher using E-view 9.5

In table 4.19, the granger causality between external debt and economic growth variables in Nigeria showed that external debt have no granger effect on economic growth with F-statistic of 0.16998 showing probability value of 0.8446 which is more than the critical value of 5% level of significance confirm the direct insignificant effect of external debt on GDP. The GDP however showed a high F-statistic of 4.40770 with probability of 0.0225 proving that external debt was affected by the economic growth position within the same period under consideration. Thus, there is a unidirectional granger relationship between external debt and economic growth in Nigeria. Thus, the null hypothesis which states that external debts have no significant effect on economic growth is accepted thereby rejecting the alternative result which states that external debt have a significant effect on economic growth in Nigeria.

Hypothesis one Decision

Table 4.20: Summary of Comparative result for Hypothesis One

Null Hypothesis		F-test (P-value) SA	Decision	F-test (P-value) Nig	Decision
EXTDEBT does not Granger Cause GDP	29	2.55739 (0.0968)	**Accept Ho**	0.16998 (0.8446)	**Accept Ho**
GDP does not Granger Cause EXTDEBT		4.49386 (0.0211)		4.40770 (0.0225)	

Source: Computation by author using E-view 9.5

Based on the findings and conclusion for both Nigeria and South Africa, the study therefore accept the null hypothesis for both South Africa and Nigeria by stating that External Debts have no significant effect on economic growth of South Africa and Nigeria within the period under review.

4.3.2 Test of Hypothesis Two (2)

Ho$_2$:   There is no significant relationship between External Reserves and Economic Growth in Nigeria and South Africa economies.

HA$_2$:   There is a significant relationship External Reserves and Economic Growth in Nigeria and South Africa economies.

Table 4.21:   Regression result for Hypothesis Two (South Africa)

Dependent Variable: D(GDP(-1))				
Method: Least Squares				
Date: 03/02/18 Time: 18:39				
Sample (adjusted): 1988 2016				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXTRES	**-0.058763**	**0.171464**	**-0.342713**	**0.7345**
EXRATE	-4.07E+08	1.50E+08	-2.713642	0.0114
TRADINT	7.81E+10	3.95E+10	1.975491	0.0545
C	3.91E+10	1.53E+10	2.547553	0.0169
R-squared	0.476806	Mean dependent var		1.76E+10
Adjusted R-squared	0.418673	S.D. dependent var		1.18E+10
S.E. of regression	8.98E+09	Akaike info criterion		48.79327
Sum squared resid	2.17E+21	Schwarz criterion		48.97830
Log likelihood	-752.2957	Hannan-Quinn criter.		48.85358
F-statistic	8.202028	Durbin-Watson stat		1.501238
Prob(F-statistic)	0.000485			

Source: Computation by researcher using E-view 9.5

In table 4.21, the R^2 and Adjusted R^2 both showed 47.68% and 41.87% respectively. This shows that the chosen regression model moderately fits the data. Hence, the goodness of fit regression model is 47.68% and implies that the chosen explanatory variables explain variations in the dependent variables to the tune of 47.68%. Also, with a moderate Adjusted R^2 (41.87%) implies that the model can take on more variables without the R^2 falling beyond 41.87%. At the intercept (constant) of the regression model the dependent variable Y has a value of 3.9110, when EXTRES, EXRATE and TRADINT (SOUTH AFRICA) are equal to zero (0). However, if EXTRES, EXRATE and TRADINTare increased by 1% the dependent variable Y will decrease

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by 0.058763, 4.0708 while increase by 7.8110 for EXTRES, EXRATE and TRADINT respectively. F-statistic of 8.202028 is considered very good being positive and significant enough and it shows that there is overall significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistic) of 0.000485 is rightly signed and very significant and displays a Durbin-Watson of approximately 1.501, which is considered good as it shows little or no effect of autocorrelation on the chosen data. The low standard error of 0.171464 further confirms the strength and the predictive power of the beta coefficient of External Reserves.However, the t-statistic of -0.342713with p-value of 0.7345 showed that the external reserves (EXTRES) of South Africa have no relationship with economic growth in GDP with negatively insignificant signs within the period under review. Thus, the null hypothesis which states that external reserves have no significant relationship with economic growth in South Africa is accepted.

Table 4.22:   Regression result for Hypothesis Two (Nigeria)

Dependent Variable: D(GDP)
Method: Least Squares
Date: 03/02/18   Time: 18:19
Sample (adjusted): 1987 2016
Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXTRES	**1.524872**	**0.599100**	**2.545271**	**0.0167**
EXRATE	-34373886	1.28E+08	-0.267661	0.7909
TRADINT	-2.88E+11	2.02E+11	-1.422672	0.1659
C	4.76E+10	2.72E+10	1.750965	0.0909

R-squared	0.358338	Mean dependent var	3.07E+10
Adjusted R-squared	0.289589	S.D. dependent var	3.51E+10
S.E. of regression	2.96E+10	Akaike info criterion	51.17343
Sum squared resid	2.45E+22	Schwarz criterion	51.35665
Log likelihood	-814.7749	Hannan-Quinn criter.	51.23416
F-statistic	5.212227	Durbin-Watson stat	2.258192
Prob(F-statistic)	0.005499		

Source: Computation by researcher using E-view 9.5

The estimated regression result in table 4.22 indicate that during the period under study, the regressand or the dependent variable Y (GDP) in the period under study responded to changes in the independent (regressor) variables, EXTRES, EXRATE and TRADINT (NIG). At the intercept (constant) of the regression model the dependent variable Y has a value of 4.7610, when EXTRES, EXRATE and TRADINT (NIG) and the control function are equal to zero (0). However, if EXTRES, EXRATE and TRADINTare increased by 1% the dependent variable Y

will increase by 1.524872 and reduce by 34373886 and 2.8811% respectively. The estimated result and sign of the beta coefficient of the regressor (EXTRES, EXRATE and TRADINT) behaved in a manner consistent with economic theory. From the observed value of R-square which is 5.212227% and Adjusted R-square of 0.289589%, it can be inferred that there is a very low relationship between GDP and EXTRES, EXRATE and TRADINT (NIG) of the model. This model provides a good fit as over 35.8% of the changes in Y was accounted for by changes in EXTRES, EXRATE and TRADINT. The result also shows that, relationship between the regressand and EXTRES, EXRATE and TRADINT the regressors aremoderate. The high F-statistic of 5.212227% show that the model is significant below the 5% level of significance thus showing the overall impact of EXTRES, EXRATE and TRADINT on economic growth in GDP. The t-statistic of 2.545271 is also high and shows p-value of 0.0167. The t-statistic of 2.545271 approximately showing the individual effect of EXTRES on GDP is positive and significant. The low standard error of 0.599100 further confirms the strength and the predictive power of the beta coefficient. Generally, from all angle EXTRES as a regressor impacted positively and significantly on the GDP (Y) in the period under study. Thus, the null hypothesis statement of no significant effect of external reserves on economic growth is rejected thereby accepting the alternative hypothesis that states that there is a significant effect of external reserves on economic growth in Nigeria.

Hypothesis Two Decision

Table 4.23: Summary of Comparative result for Hypothesis Two

Variable	t-statistic (Prob) SA	Decision	t-statistic (Prob) Nig	Decision
EXTRES	-0.342713 (0.7345)	Accept Ho	2.545271 (0.0167)	Reject Ho

Source: Computation by researcher using E-view 9.5

Based on the findings and conclusion for both Nigeria and South Africa, the study therefore accepts the Null hypothesis that states that External Reserves have no significant effect on economic growth of South Africa; while the External Reserves have significant effect on economic growth of Nigeria thus accepting the alternative hypothesis of a significant effect of External Reserves on economic growth of Nigeria within the period under review.

4.3.3 Test of Hypothesis Three (3)

Ho₃: Exchange Rates have no significant relationship with Economic Growth of Nigeria and South Africa economies.

HA₃: Exchange Rates have significant relationship with Economic Growth of Nigeria and South Africa economies.

Table 4.24:   Regression result for Hypothesis Three(South Africa)

Dependent Variable: D(GDP(-1))
Method: Least Squares
Date: 03/02/18   Time: 18:39
Sample (adjusted): 1988 2016
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXTRES	-0.058763	0.171464	-0.342713	0.7345
EXRATE	**-4.07E+08**	**1.50E+08**	**-2.713642**	**0.0114**
TRADINT	7.81E+10	3.95E+10	1.975491	0.0545
C	3.91E+10	1.53E+10	2.547553	0.0169

R-squared	0.476806	Mean dependent var	1.76E+10
Adjusted R-squared	0.418673	S.D. dependent var	1.18E+10
S.E. of regression	8.98E+09	Akaike info criterion	48.79327
Sum squared resid	2.17E+21	Schwarz criterion	48.97830
Log likelihood	-752.2957	Hannan-Quinn criter.	48.85358
F-statistic	8.202028	Durbin-Watson stat	1.501238
Prob(F-statistic)	0.000485		

Source: Computation by researcher using E-view 9.5

In table 4.24, the R^2 and Adjusted R^2 both showed 47.68% and 41.87% respectively. This shows that the chosen regression model moderately fits the data. Hence, the goodness of fit regression model is 47.68% and implies that the chosen explanatory variables explain variations in the dependent variables to the tune of 47.68%. Also, with a moderate Adjusted R^2 (41.87%) implies that the model can take on more variables without the R^2 falling beyond 41.87%. At the intercept (constant) of the regression model the dependent variable Y has a value of 3.9110, when EXTRES, EXRATE and TRADINT (SOUTH AFRICA) are equal to zero (0). However, if EXTRES, EXRATE and TRADINTare increased by 1% the dependent variable Y will decrease by 0.058763, 4.0708 while increase by 7.8110 for EXTRES, EXRATE and TRADINT respectively. F-statistics of 8.202028 is considered very good being positive and significant enough and it shows that there is overall significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistic) of 0.000485 is rightly signed and very significant and displays a Durbin-Watson of approximately 1.501, which is considered good

as it shows little or no effect of autocorrelation on the chosen data. The low standard error of 0.171464 further confirms the strength and the predictive power of the beta coefficient of External Reserves. However, the t-statistic of -2.713642 with p-value of 0.0114 showed that the exchange rate (EXRATE) of South Africa affect the economic growth in GDP negatively and significantly within the period under review. Thus, the null hypothesis which states that exchange rate have no significant relationship with economic growth is rejected thereby accepting the alternative that states that exchange rate has significant relationship with economic growth in South Africa.

Table 4.25:   Regression result for Hypothesis Three(Nigeria)

Dependent Variable: D(GDP)
Method: Least Squares
Date: 03/02/18   Time: 18:19
Sample (adjusted): 1987 2016
Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXTRES	1.524872	0.599100	2.545271	0.0167
EXRATE	**-34373886**	**1.28E+08**	**-0.267661**	**0.7909**
TRADINT	-2.88E+11	2.02E+11	-1.422672	0.1659
C	4.76E+10	2.72E+10	1.750965	0.0909

R-squared	0.358338	Mean dependent var		3.07E+10
Adjusted R-squared	0.289589	S.D. dependent var		3.51E+10
S.E. of regression	2.96E+10	Akaike info criterion		51.17343
Sum squared resid	2.45E+22	Schwarz criterion		51.35665
Log likelihood	-814.7749	Hannan-Quinn criter.		51.23416
F-statistic	5.212227	Durbin-Watson stat		2.258192
Prob(F-statistic)	0.005499			

Source: Computation by researcher using E-view 9.5

The estimated regression result in table 4.25 indicate that during the period under study, the regressand or the dependent variable Y (GDP) in the period under study responded to changes in the independent (regressor) variables, EXTRES, EXRATE and TRADINT (NIG). At the intercept (constant) of the regression model the dependent variable Y has a value of 4.7610, when EXTRES, EXRATE and TRADINT (NIG) and the control function are equal to zero (0). However, if EXTRES, EXRATE and TRADINTare increased by 1% the dependent variable Y will increase by 1.524872 and reduce by 34373886 and 2.8811% respectively. The estimated result and sign of the beta coefficient of the regressor (EXTRES, EXRATE and TRADINT) behaved in a manner consistent with economic theory. From the observed value of R-square

which is 5.212227% and Adjusted R-square of 0.289589%, it can be inferred that there is a very low relationship between GDP and EXTRES, EXRATE and TRADINT (NIG) of the model. This model provides a good fit as over 35.8% of the changes in Y was accounted for by changes in EXTRES, EXRATE and TRADINT. The result also shows that, relationship between the regressand and EXTRES, EXRATE and TRADINT the regressors aremoderate. The high F-statistic of 5.212227% show that the model is significant below the 5% level of significance thus showing the overall impact of EXTRES, EXRATE and TRADINT on economic growth in GDP.The t-statistic of -0.267661 is negative and low with p-value of 0.7909. The t-statistic of -0.267661 approximately showing the individual relationship between EXRATE and GDP is negativeand insignificant. The low standard error of 1.2808 further confirms the strength and the predictive power of the beta coefficient. Generally, from all angle EXRATE as a regressor impacted negatively and insignificantly on the GDP (Y) in the period under study. Thus, the null hypothesis statement of no significant relationship between exchange rate and economic growth in Nigeria is accepted.

Hypothesis Three Decision
Table 4.26: Summary of Comparative result for Hypothesis Three

Variable	t-statistic (Prob) SA	Decision	t-statistic (Prob) Nig	Decision
EXRATE	-2.713642 (0.0114)	Reject Ho	-0.267661 (0.7909)	Accept Ho

Source: Computation by researcher using E-view 9.5

Based on the findings and conclusion for both Nigeria and South Africa, the study therefore accepts the Null hypothesis that states that Exchange rate have significant relationship with economic growth in South Africa while exchange rate have an insignificant relationship with economic growth in Nigeria within the period under review.

4.3.4 Test of Hypothesis Four (4)

Ho_4: There is no significant effect of FDI on Economic Growth in Nigeria and South Africa economies.

HA_4: There is a significant effect of FDI on Economic Growth in Nigeria and South Africa economies.

Table 4.27: Granger Causality result for Hypothesis Four(South Africa)

Pairwise Granger Causality Tests			
Date: 03/02/18 Time: 23:13			
Sample: 1986 2016			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
FDI does not Granger Cause GDP	29	0.71369	0.4992
GDP does not Granger Cause FDI		7.58176	0.0025

Source: Computation by author using E-view 9.5

In table 4.27, the granger causality between FDI and economic growth variables in South Africa showed that FDI have no granger effect on economic growth with F-statistic of 0.71369 showing probability value of 0.4992 which is more than the critical value of 5% level of significance confirm the direct insignificant effect of FDI on GDP. The GDP however showed a high F-statistic of 7.58176 with probability of 0.0025 proving that FDI was affected by the economic growth position within the same period under consideration. Thus, there is a unidirectional granger relationship between FDI and economic growth in South Africa. Thus, the null hypothesis which states that FDI have no significant effect on economic growth is accepted thereby rejecting the alternative result which states that FDI have a significant effect on economic growth in South Africa.

Table 4.28:   Regression result for Hypothesis Four(Nigeria)

Pairwise Granger Causality Tests			
Date: 03/02/18 Time: 23:26			
Sample: 1986 2016			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
FDI does not Granger Cause GDP	29	4.49827	0.0210
GDP does not Granger Cause FDI		0.38710	0.6829

Source: Computation by researcher using E-view 9.5

In table 4.28, the granger causality between FDI and economic growth variables showed that FDI have a granger effect on on economic growth with F-statistic of 4.49827 showing probability value of 0.0210 which is less than the critical value confirm the direct significant effect of FDI on GDP. The GDP however showed a low f-statistics of 0.38710 with probability of 0.6829 proving that FDI was unable to be affected by the economic growth position within the same period under consideration. Thus, there is a unidirectional granger relationship between FDI and economic growth in Nigeria.Hence, the null hypothesis which states that FDI have no

significant effect on economic growth is rejected thereby accepting the alternative result which states that FDI have a significant effect on economic growth in Nigeria.

Hypothesis FourDecision

Table 4.29: Summary of Comparative result for Hypothesis Four

Null Hypothesis		F-test (P-value) SA	Decision	F-test (P-value) Nig	Decision
FDI does not Granger Cause GDP	29	0.71369 (0.4992)	Accept Ho	4.49827 (0.0210)	Reject Ho
GDP does not Granger Cause FDI		7.58176 (0.0025)		0.38710 (0.6829)	

Source: Computation by researcher using E-view 9.5

Based on the findings and conclusion for both Nigeria and South Africa, the study therefore accept the null hypothesis which states that FDI have no significant effect on economic growth of South Africa by rejecting the alternative which states that FDI have significant effect on South African Economic growth while in Nigeria FDI have a significant effect on economic growth of Nigeria within the period under review.

4.3.5   Test of Hypothesis Five (5)

Ho$_5$:   Trade Integration has no significant effect on economic growth in Nigeria and South Africa economies.

HA$_5$:   Trade Integration has significant effect on economic growth in Nigeria and South Africa economies.

Table 4.30:   Regression result for Hypothesis Five(South Africa)

Dependent Variable: D(GDP(-1))
Method: Least Squares
Date: 03/02/18   Time: 18:39
Sample (adjusted): 1988 2016
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXTRES	-0.058763	0.171464	-0.342713	0.7345
EXRATE	-4.07E+08	1.50E+08	-2.713642	0.0114
TRADINT	**7.81E+10**	**3.95E+10**	**1.975491**	**0.0545**
C	3.91E+10	1.53E+10	2.547553	0.0169

R-squared	0.476806	Mean dependent var		1.76E+10
Adjusted R-squared	0.418673	S.D. dependent var		1.18E+10
S.E. of regression	8.98E+09	Akaike info criterion		48.79327
Sum squared resid	2.17E+21	Schwarz criterion		48.97830
Log likelihood	-752.2957	Hannan-Quinn criter.		48.85358
F-statistic	8.202028	Durbin-Watson stat		1.501238
Prob(F-statistic)	0.000485			

In table 4.30, the R^2 and Adjusted R^2 both showed 47.68% and 41.87% respectively. This shows that the chosen regression model moderately fits the data. Hence, the goodness of fit regression model is 47.68% and implies that the chosen explanatory variables explain variations in the dependent variables to the tune of 47.68%. Also, with a moderate Adjusted R^2 (41.87%) implies that the model can take on more variables without the R^2 falling beyond 41.87%. At the intercept (constant) of the regression model the dependent variable Y has a value of 3.9110, when EXTRES, EXRATE and TRADINT (SOUTH AFRICA) are equal to zero (0). However, if EXTRES, EXRATE and TRADINT are increased by 1% the dependent variable Y will decrease by 0.058763, 4.0708 while increase by 7.8110 for EXTRES, EXRATE and TRADINT respectively. F-statistic of 8.202028 is considered very good being positive and significant enough and it shows that there is overall significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistic) of 0.000485 is rightly signed and very significant and displays a Durbin-Watson of approximately 1.501, which is considered good as it shows little or no effect of autocorrelation on the chosen data. The low standard error of 0.171464 further confirms the strength and the predictive power of the beta coefficient of External Reserves. However, the t-statistic of 1.975491 with p-value of 0.0545 showed that the TRADINT (Trade Integration) into South Africa have positive and significant relationship with economic growth in GDP within the period under review. Thus, the null hypothesis which states that TRADINT (Trade Integration) have no significant relationship with economic growth of South Africa within the period under review is rejected thereby accepting the alternative which states that TRADINT have a significant relationship with economic growth in South Africa.

Table 4.31: Regression result for Hypothesis Five(Nigeria)

Dependent Variable: D(GDP)
Method: Least Squares
Date: 03/02/18   Time: 18:19
Sample (adjusted): 1987 2016
Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXTRES	1.524872	0.599100	2.545271	0.0167
EXRATE	-34373886	1.28E+08	-0.267661	0.7909
TRADINT	**-2.88E+11**	**2.02E+11**	**-1.422672**	**0.1659**
C	4.76E+10	2.72E+10	1.750965	0.0909

R-squared	0.358338	Mean dependent var	3.07E+10
Adjusted R-squared	0.289589	S.D. dependent var	3.51E+10
S.E. of regression	2.96E+10	Akaike info criterion	51.17343
Sum squared resid	2.45E+22	Schwarz criterion	51.35665
Log likelihood	-814.7749	Hannan-Quinn criter.	51.23416
F-statistic	5.212227	Durbin-Watson stat	2.258192
Prob(F-statistic)	0.005499		

Source: Computation by author using E-view 9.5

The estimated regression result in table 4.31 indicate that during the period under study, the regressand or the dependent variable Y (GDP) in the period under study responded to changes in the independent (regressor) variables, EXTRES, EXRATE and TRADINT (NIG). At the intercept (constant) of the regression model the dependent variable Y has a value of 4.7610, when EXTRES, EXRATE and TRADINT (NIG) and the control function are equal to zero (0). However, if EXTRES, EXRATE and TRADINTare increased by 1% the dependent variable Y will increase by 1.524872 and reduce by 34373886 and 2.8811% respectively. The estimated result and sign of the beta coefficient of the regressor (EXTRES, EXRATE and TRADINT) behaved in a manner consistent with economic theory. From the observed value of R-square which is 5.212227% and Adjusted R-square of 0.289589%, it can be inferred that there is a very low relationship between GDP and EXTRES, EXRATE and TRADINT (NIG) of the model. This model provides a good fit as over 35.8% of the changes in Y was accounted for by changes in EXTRES, EXRATE and TRADINT. The result also shows that, relationship between the regressand and EXTRES, EXRATE and TRADINT the regressors aremoderate. The high F-statistics of 5.212227% show that the model is significant below the 5% level of significance thus showing the overall impact of EXTRES, EXRATE and TRADINT on economic growth in GDP. The t-statistic of -1.422672 is low and shows p-value of 0.1659. The t-statistic of -1.422672 approximately show the individual relationship between TRADINT (Trade Integration) and GDP is negative and insignificant. The standard error of 2.0211further confirms the strength and the predictive power of the beta coefficient. Generally, from all angle TRADINT (Trade Integration) as a regressor impacted negatively and insignificantly on the GDP (Y) in the period under study. Thus, the null hypothesis statement of no significant effect of TRADINT (Trade Integration) on economic growth in Nigeria within the period under review is accepted.

Hypothesis Five Decision
Table 4.32: Summary of Comparative result for Hypothesis Five

Variable	t-statistic (Prob) SA	Decision	t-statistic (Prob) Nig	Decision
TRADINT	1.975491 (0.0545)	Reject Ho	-1.422672 (0.1659)	Accept Ho

Source: Computation by author using E-view 9.5

Based on the findings and conclusion for both Nigeria and South Africa, the study therefore reject the Null hypothesis that states that TRADINT (Trade Integration) have no significant relationship with economic growth of South Africa thereby accepting the alternative that states that TRADINT has a significant relationship with economic growth in South Africa, while the NigerianTRADINT however have no significant relationship with economic growth within the period under review.

4.4   Discussion of Findings

This study examined external sector and economic growth of Nigeria and South Africa from 1986 to 2016 with a view to affirming or refuting the nexus between external sector variables and economic growth in Nigeria and South Africa using empirical evidence from Nigeria and South Africa. Following a detailed theoretical review and empirical analyses, findings were made in line with the research questions as well as set and tested hypotheses. The study employed five models and used diagnostics tests namely – Unit root test, multicollinearity, Ramsey reset, Heteroskedasticity, Breseuch Godfrey serial correlation, Correlation and cointegration tests; Granger causality test and regression tests techniques were used to test and analyse the data represented in table 4.1 and 4.2; and the subsequent tests results in tables 4.3 to table 4.32. The findings are hereby discussed below in line with the objectives of this study.

Objective One: To ascertain the effect of External Debt on Economic growth of Nigerian and South Africaneconomies.

The result of the regression analysis revealed that External Debt has positive but insignificant effect on economic growth ofboth South Africa and Nigeria. The study showed that past levels of accumulated external debt has a positive andinsignificant (in f-statistic of2.55739 with p-value of 0.0968 for South Africa) effect on South African economic growth at the 5% level of significance. The Nigerian External Debt with f-statistics of 0.16998 and p-value of 0.8446on economic growth also has insignificant effect. Hence, external debt structure shows more positive effect on South African economy compared to Nigeria but both have insignificant effect. The result of this study is consistent with the findings of Pattilo, Poirson and Ricci (2002), Siddique, et. al. (2015), Zouhaier and Fatma (2014), Anochie and Ude (2015), Udeh, Ugwu and

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Onwuka (2016) in the short runand Zaghdoudi, Mezni and Djebali (2016)however found a negative and insignificant effect of external debt on economic growth. It however partially supports our apriori expectation of a positive but insignificant effect (Udeh, Ugwu & Onwuka (2016) in the long run) in South Africa. A plausible direct interpretation of this result is that the external debt structures for the two countries in Nigeria have overtime been counter economic growth friendly due to possible lack of investment of borrowed funds in economic viable infrastructures and investments that will boost economic growth, while in South Africa external debt were diversified into the key sectors of the economy.

Objective Two: To examine the relationship of external reserves on Economic growth of Nigerian and South African economies.

The result of the regression analysis shows that external reserves have negative and insignificant relationship with economic growth of South Africa. But in Nigeria, the external reserves have both positive and significant relationship with economic growth of Nigeria. The study showed that past levels of external reserves was negatively related with South Africa economic growth in its negative t-statistics results (-0.342713); however the statistically insignificant relationship (p-value of 0.7345) with economic growth in South Africa at the 5% level of significance showed that external reserves has an insignificant relationship with economic growth in South Africa. While in Nigeria, the statistically significant relationship between external reserves and (p-value 0.0167) economic growth in Nigeria at the 5% level of significance showed that external reserves has a significant relationship with economic growth in Nigeria with a high f-statistics of 2.545271. The coefficient of the past levels of external reservesin -0.058763 on South Africa showed that external reserve reduce economic growth of South Africa by 5.88% with every significant improvement in the reserves. While in Nigeria, the coefficient of the past levels of external reserves in 1.524872 showed that external reserves improves the Nigerian economic growth by 152.49% by every significant improvement in the external reserves.

The result of this study for Nigeria is corroborated by the study of Elhiraika and Ndikumana (2007), Usman and Ibrahim (2010), Umeora (2013), Alasan and Shaib (2011), Omade and AbdulazeezB. (2011), Shrestha (2016)whose study found a positive and significant effect of external reserves on economic growth. However, the result of South Africa was

uncorroborated and contrary to our apriori expectations. The International Trade Theory of Heckscher-Ohlin-Samuelson does not seem to hold for South Africa and also runs at variance with our apriori expectation of a positive and significant effect (Udeh, Ugwu & Onwuka (2016) in the long run) while the theory is been upheld in Nigeria and conform to our apriori expectation of a positive and significant effect.

A probable direct interpretation of this result is that the efforts of External reserves were basically excessively high and idle in South Africa; these funds would have been used for development in South Africa while in Nigeria the reserves were regularly reduced to augment investment and developmental activities.

Objective Three: To examine the relationship between exchange rate and Economic growth of Nigerian and South African economies.

The results of the regression studies shows that exchange rate has a negative and statistically significant relationship with economic growth of South Africa, while in Nigeria the exchange rate showed a negative and statistically insignificant relationship between exchange rate and economic growth in the period under review. The study showed that past levels of exchange rate in international trade has a negative (t-statistic of -2.713642) and statistically significant relationship with (p-value of 0.0114) economic growth of South Africa at the chosen 5% level of significance; however, the past levels of exchange rate in international trade also has a negative t-statistic of -0.267661 and statistically insignificant relationship with (p-value of 0.7909) economic growth of Nigeria at the chosen 5% level of significance. The coefficient of the past levels of exchange rate has a negative sign (-4.0708%) showing an increase in exchange rate based in international trade transactions overtime affects the economic growth of South Africa negatively. While in Nigeria, the coefficient of the past levels of exchange rate also has a negative sign (-34373886%) showing an increase in exchange rate based in international trade transactions overtime affects the economic growth of Nigeria negatively.

The result of this study is supported by the study of Kandil (2004), Danson-Musyoki (2012), Ferrando (2011), Musyoki, Pokhariyal and Pundo (2012), Brown (2012), Mewadi (2013), Akpan and Atan (2012) and Amassoma and Odeniyi (2016).
The International Trade Theory of Heckscher-Ohlin-Samuelson holds for both South Africa and Nigeria and conform to the apriori expectation though the results are partially statistically significant and insignificant, the results indicates negative effects. Surprisingly, a cascaded test

of this objective also show contrary results in Akpan (2009), Dada (2012), Akpan and Atan (2012), Shehu (2012), Pius (2012), Attah (2013), Kamal-Uddin, Rahman and Quaosar (2014) and Mehdi, Arezoo and Alireza (2014).

A plausible implication of this result is that exchange rate pulls the investment and economic growth backward as the falling local currency affects investments and economic directions in Nigeria while in South Africa the local currency were hugely maintained that it does not fall easily to the dollar in the international market.

Objective Four: To ascertain the effect of FDI on Economic growth of Nigerian and South African economies.

The result of the granger causality study in table 4.19a showed that Foreign Direct Investment (FDI) has a positive and insignificant effect on economic growth of South Africa while the result in table 4.19b for Nigeria showed a positive and significant effect of FDI on economic growth. The result of this study on Nigeria is consistent with the findings of Adjaye (2009), Oyatoye, Arogundade, Adebisi and Oluwakayode (2011), Umoh, Jacob, and Chuku (2012), Khathlan (2012), Ikechi and Anayochukwu (2013), Ekwe and Inyiama (2014), Agrawal (2015), Hayat and Cahlik (2017) and Malikane and Chitambara (2017)who also found a statistically significant effect of FDI on economic growth. This study experience support the theoretical foundation of International Trade Theory of Heckscher-Ohlin-Samuelson and comparative cost advantage theory. The outcome of this study agrees with our Apriori expectation of a positive and significant relationship for Nigeria while the Apriori expectations were total contradicted for South Africa.

A probable direct interpretation of this result is that the effort of FDI (Foreign Direct Investment) for Nigeria is concentrated in key productive and economic viable investments which help to also attract FDI spillovers. While, in South Africa the interpretation shows that regardless of the diversification of the South African economy, the FDI were not directed to improve key investment areas of the country.

Objective Five: To examine the relationship between trade integration and Economic growth of Nigerian and South African economies.

The results of the regression studies showed that Trade integration has a positive and statistically significant relationship with economic growth of South Africa; while in Nigeria, the result showed that trade integration has a negative and insignificant relationship with economic growth. The study as shown in the result of table 4.20a revealed that past levels of Trade integration has a positive (t-statistic of 1.975491 for South Africa) and statistically significant relationship with (p-value of 0.0545 for South Africa) economic growth of South Africa at the 5% level of significance. However, the Nigerian study as shown in table 4.20b revealed that past level of trade integration has a negative and statistically insignificant relationship with economic growth at 5% level of significance (with t-test of -1.422672 and p-value of 0.1659). The coefficient of the past levels of Trade Integration in 7.8110 for South Africa and -2.8811 for Nigeria showed that trade integration add to economic growth of South Africa and reduce from the economic growth of Nigeria over time.

The result of this study in South Africa is consistent with the findings of Herzer (2013), Zeren and Ari (2013), Sokvi, Villaverde, and Maza (2015), Fitozová and Zidek (2015), Musila and Yiheyis (2015), Trejos and Barboza (2015), Shah and Fazal (2016), Polat, Shahhaz, Rehman, and Satti (2015), Dritsakis and Stamatiou (2016) who also found a positive relationship between trade integration (openness) and GDP. This finding further lays credence to International Trade Theory of Heckscher-Ohlin-Samuelson and our apriori expectation of a positive relationship for South Africa.

However, the study of Nigeria posts insignificant relationship between trade integration and economic growth. This finding contradicts the International Trade Theory of Heckscher-Ohlin-Samuelson and Ricardos' Theory of comparative cost advantage.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1   Summary of Findings

The findings from the specific objectives of this study are as follows:

1.   External Debt had a positive and insignificant effect on economic growth of both South Africa and Nigeria within the period under review.

2.   The result of the study showed that external reserves had negative and insignificant relationship with economic growth of South Africa; while in Nigeria, the external reserves have both positive and significant relationship with economic growth of Nigeria.

3.   The result of the studies showed that exchange rate had a negative and statistically significant relationship with economic growth of South Africa, while in Nigeria the

exchange rate showed a negative and statistically insignificant relationship between exchange rate and economic growth in the period under review.

4.   Foreign Direct Investment (FDI) had a positive and insignificant effect on economic growth of South Africa; while a positively significant effect of FDI on economic growth was discovered in Nigeria.

5.   Trade integration had a positive and statistically significant relationship with economic growth of South Africa; while in Nigeria, trade integration has a negative and insignificant relationship with economic growth.

5.2   Conclusion

This research work studied external sector and economic growth of South Africa and Nigeria following largely from the work as postulated by International Trade Theory of Heckscher-Ohlin-Samuelson and Ricardo's Comparative Cost Advantage. They largely held that openness to international trade generate substantial gains by reallocating resources between tradable and non tradable sectors thereby facilitating economic growth at large and the Comparative Cost Advantage theory states that a country will *export* those commodities in which its comparative advantage is the greatest and *import* those commodities in which its comparative disadvantage is the least which constituted the focus of this work. Arguments in favour of the external sector variables and economic growth and contradictions to the postulations were reviewed from theoretical and empirical literature. Even lines of argument which suggests that economic growth depends on the availability of external reserves which drives exchange rates, direction of external debt, influence exchange rate and import/export trade level and volume of foreign direct investments within the two African countries understudy (South Africa and Nigeria), were also reviewed. Empirical analysis unbundled external sector variables (indicators) into external debt, external reserves, exchange rate, foreign direct investment and trade integration in determining both their effect on and relationship with economic growth. The apparent inflated debt structure, depleted external debt, sky-rocketing exchange rate and recent global financial meltdown which affect foreign direct investment over the years undoubtedly cast doubt on the reality of the theoretical basis of the study.

The need to domesticate the study of this effects to South Africa and Nigeria, contribute to current literature on subject matter, validate other scholars view point, consolidate other

variables omitted, which to the best of researcher's knowledge had not been included on a comparative bases as well as use a more dynamic and robust analytical tool that capture the time series nature of the data involved motivated this study.It was against the foregoing that the study chose a broad objective of examining external sector variables on economic growth of both South Africa and Nigeria.

The results emanating from our study proved that external sector variables grossly impacted economic growth of South Africa significantly than it affect Nigerian economic growth within the period under review. A long-run relationship was also established and documented appropriately for Nigeria while South African external sector and economic growth showed absence of long run relationship. In conclusion, based on the outcome of our study, we affirm that external sector variables significantly influence economic growth of South Africa more compared to the influence of external sector variables on Nigerian economic growth.

5.3   Recommendations

In line with the objectives of this study, we summarize our recommendations as follows:

1.   The government should reduce external debt (structure) in Nigeria to reduce external debt services which leads to capital leakage from the economy. These will help retain funds for building investments and infrastructures that will boost economic growth in Nigeria. The South Africa economy should also maintain a reduced external debt structure so as not to explode into chronic debt servicing over time. This will allow the countries to maximize the gains of the spillover effects of retained funds to increase economic activities and industrial productivity.

2.   The governments of Nigeria and South Africa should encourage compulsory building of external reserves above the threshold of IMF and ADF to improve the position of trade activities, exchange rates and boost foreign direct investment in the two countries.

3.   The monetary regulatory authorities of Nigeria and South Africa should manage the exchange rate to a certain level where domestic currency continue to appreciate against the dollar so as to boost exportation activities as opposed to importation which deplete the external reserves and fall in exchange rate as a result of too much local currency pursuing the dollar.

4.   The regulatory authorities of Nigeria and South Africa are advised to maintain robust external reserves, provide investment friendly environment and reduce swift policy

changes which may hinder and discourage foreign direct investment and economic growth at large.

5.   The various governments through their ministry of trade and investments are encouraged to create financial market awareness activities to expose the benefits of export-import activities to the South African and Nigerian economic environments in the international markets and launder their images to both local and foreign investors alike. This will help improve the trade openness as well as the capital flows to and fro the economies of South Africa and Nigeria.

5.4   Contributions to Knowledge

The study empirically proves that external sector variables have no significant effect on economic growth of South Africa and Nigeria which is contrary to the apriori expectations of the study.

1.   This work contributes to current literature on subject by updating the number of years used by other scholars from 20 years to 31 years (1986 – 2016).

2.   Most reviewed literature employed a combination of external reserves, external debt and exchange rates. This work employed all five external sector variables to measure external sector on economic growth and in addition used foreign direct investment and trade integration to ascertain both effect and relationship with economic growth of Nigeria and South Africa respectively. The result showed a positive and significant effect of FDI on economic growth of Nigeria while having insignificant effect on South African economic growth, for trade integration positive and significant relationship was established with economic growth in South Africa while in Nigeria negative and insignificant relationship was discovered.To the best of the researcher's knowledge no comparative study has tested for this effect on this scale.

5.5   Recommendations for Further Studies

As this work does not claim to be exhaustive, this study recommends the following for further studies:

1.   The Effect of external sector on Economic Growth in Sub-Saharan African countries using Panel Data Analysis (PDA).

2.   Secondly, the research recommends a multiple regression approach of external sector variables and economic growth of emerging African economies.

3.   Thirdly, this research work recommends for further studies the use of Generalized Autoregressive Conditional Heteroscedasticity Model (GARCH) to study Effect of External Sector variables on economic growth.

REFERENCES

Abayomi, A. (2013). External Trade and Nigeria Economy: An Impact Analysis. *Journal of Poverty, Investment and Development; An Open Access International Journal,* 1.

Abdellah, F. G. & Levin, E. (1979). *Better Patient Care through Nursing research;* New York:Macmillan Publishing Company.

Abu Bakarr, T. (2010). Real Exchange Rate Behaviour and Economic Growth: Evidence from Sierra Leone. *South Africa Journal of Economics and Management Science*, 13(1), 8-25.

Acaravcl, A. & Ozturk, I. (2012). Foreign direct investment, export and economic growth: Empirical evidence from new EU countries. *Roman. J. Econ. Forecast.* 2, 52–67.

Adam, E. & Leonce, N. (2007). Reserves Accumulation in African Countries-Sources, Motivation and Effects. *African Economic Conference*.

Adam, J. A. (2007). Foreign debt, economic growth, and Nigeria's debt servicing capacity. Doctoral Dissertation, *Department of Economics University of Ibadan*.

Adedoyin, L. I., Babalola, B. M., Otekunri, A. O.&Adeoti, J. O. (2016).External Debt and Economic Growth: Evidence from Nigeria, *Acta Universitatis Danubius. Œconomica,* 12 (6).

Adelegan, J. O. (2000). Foreign Direct Investment and Economic Growth in Nigeria: A Seemingly Unrelated Model. A*frican Review of Money, Finance and Banking, Supplementary Issue of Savings and Development, Milan, Italy,* 5-25.

Adeleke, K. M., Olowe S. O. & Fasesin, O. O. (2014). Impact of Foreign Direct Investment on Nigeria Economic Growth, *International Journal of Academic Research in Business and Social Sciences,* 4 (8).

Adepoju, A. A., Salau, A. S. & Obayelu, A. E. (2007). The Effects of External Debt Management on Sustainable Economic Growth andDevelopment: Lessons from Nigeria. *Munich Personal RePEc Archive*.

Adjaye, B. (2009). FDI and GDP growth in Ghana in Andinuur, J. (2013).Inflation, Foreign Direct Investment and Economic Growth in Ghana. A thesis presented at the University of Ghana, *http://ugspace.ug.edu.gh.*

Aga, A. A. K. (2014). The impact of foreign direct investment on economic growth: A case study of Turkey 1980–2012. *International Journal of Economic Finance.* 6, 71–84.

Agénor, P. R. & Montiel, P. (1996). *Development Macroeconomics*. Princeton University press.

Agénor, P. R. (1995). Output, Devaluation and the Real Exchange Rate in Developing Countries. *WeltwintschaftlichesArchiv,* 127(1), 18–41.

Agénor, P. R. (2004). Does globalization hurt the poor? *IEEP* 1 (1), 21–51.

Aghion, P., Bacchetta, P., Rancière, R., & Rogoff, K. (2009). Exchange Rate Volatility and Productivity Growth: The Role of Financial Development. *Journal of Monetary Economics*, 56, 494–513.

Agrawal, G. (2015). Foreign direct investment and economic growth in BRICS economies: A panel data analysis.*Journal Economics and Business Management.* 3, 421–424.

Ahmad, A., Ahmad, N. & Ali, S. (2013). Exchange Rate and Economic Growth in Pakistan, *Journal of Basic Applied Scientific Research,* 3(8), 740-746.

Aizenman J. & Lee, J. (2005). International Reserves: Precautionary Mercantilist Views, Theory and Evidence. IMF Working Paper wp/05/198, 1-30.

Aizenman, J. & Lee, J. (2007). International reserves: Precautionary versus mercantilist views, theory and evidence. *Open Economies Review*, 18(2), 191–214.

Ajayi, L. B. & Oke, M. O. (2012). Effect of External Debt on Economic Growth and Development of Nigeria. *International Journal of Business and Social Science,* 3, 9(12).

Ajayi, S. I. (2003). Globalization and Africa. *Journal of African Economics, 12 AERC Supplements* 1, 120-50.

Ajayi, S. I., (2006). The Determinants of Foreign Direct Investment in Africa: A Survey of the Evidence. In: Ajayi, S.I., (Ed.), Foreign Direct Investment in Sub-Saharan Africa: Origins, Targets and Potential. *AERC*, Nairobi.

Akaninye, A. U. (2016).Foreign Reserves Accumulation and Macroeconomic Environment: The Nigerian Experience (2004-2014), *International Journal of Economics and Finance Studies,* 8 (1).

Akinlo, A. E. & Yinusa, D. O. (2007). Exchange Rate versus Capital Account Liberation in Nigeria: Some Important Issues, *Central bank of Nigeria, Economic and Financial Review*, 45 (4), 69-89.

Akinlo, A. E. (2004). Foreign Direct Investment and Growth, in Nigeria: An empirical Investigation. *Journal of Policy Modeling,* 26 (5), 627-639.

Akinwunmi, A. A. & Adekoya, R. B. (2016). External reserves management and its effect on economic growth of Nigeria. *International Journal of Business and Financial Journal Research (IJBFMR)* 4, 36-46.

Akpan, E. O & Atan, J. A. (2012). Effects of Exchange Rate Movements on Economic Growth in Nigeria. *CBN Journal of Applied Statistics,* 2(2).

Akpan, P. L. (2009). Foreign Exchange Market and Economic Growth in an Emerging Petroleum Based Economy: Evidence from Nigeria (1970 — 2007). *African Economic and Business Review.* 6(2), 46-58.

Alasan A. B. & Shaib I. O. (2011). External reserves management and economic development in Nigeria. *European Journal of Business Management*. 3(11), 1-7.

Alba, J. D., Park, D. & Wang, P. (2010). The Impact of Exchange Rate on FDI and the Interdependence of FDI over Time. *The Singapore Economic Review*, 55(4), 733–747.

Alfaro, C., Chanda, A., Kalemi-Ozean, S. & Sayek, S. (2003). "FDI and economic growth: The role of local and financial markets". *Journal of International Economics*.

Aliyu, S. U. R., Yakub, M. U., Sanni, G. K. & Duke, O. O. (2009). Exchange Rate Pass-through in Nigeria: Evidence from a vector Error Correction Model. *Paper presented at the CSAE conference, Oxford University*, UK.

Aluko, J. J. (2007). The Monetization of Nigeria's Foreign Exchange Inflows. *CBN Bullion*, 31(2).

Aman, Q., Ullah, I., Khan, M. I. & Khan, S. (2013). Linkages between exchange rate and economic growth in Pakistan (an econometric approach): *European Journal of Law and Economics.* DOI: 10.1007/s10657-013-9395.

Amarcy, S. I. (2009). The Negative Real and Monetary Implications of Excessive Accumulation of Foreign Exchange Reserves: Comparison between Mozambique and Nigeria (Unpublished M.Sc Dissertation). *The School of Oriental and African Studies, University of London*.

Amassoma, D. & Odeniyi, B. D. (2016). The nexus between Exchange Rate Variation and Economic growth in Nigeria. *Singaporean Journal of Business Economics and Management Studies,* 4 (12).

Amin, S. (1977). *Imperialism and Unequal Development*. New York and London: Monthly Review Press.

Andinuur, J. (2013).Inflation, Foreign Direct Investment and Economic Growth in Ghana. *A thesis presented at the University of Ghana, http://ugspace.ug.edu.gh*

Andrews, A. P. (2015). Exports, imports, and economic growth in Liberia: Evidence from causality and cointegration analysis. *Journal of Management Policy and Practice,* 16(3), 95–109.

Anochie, U. C. & Ude, D. K. (2015). Nigerian's Management of the External Debt: Issues, Challenges and Prospects. *International Journal of Financial Economics*, 4 (4), 195-208.

Aschauer, D. A. (2000). Do states optimize? Public capital and economic growth. *The Annals of Regional Science,* 34(3), 343-363.

Aside, F. K. & Said, A. M. (2013). Impact of External Debt on Economic Growth: A Case Study of Tanzania. *Advances in Management & Applied Economics*, 3(4), 59-82.

Attah, P. O. (2013). The Econometric Analysis of the Relationship between GDP Growth Rate and the Exchange Rate in Ghana (1980-2013). *An Empirical Evidence: httpl/www.google.coin.*

Auerbach, P. (1996), Firms, competitiveness and the global economy, in Mackintosh, M., Brown, V., Costello, N., Dawson, G., Thompson, G. and Trigg, A. (Eds), *Economics and Changing Economies,* The Open University, London, 393-425.

Awokuse. (2007). Causality between exports, imports and economic growth: Evidence from transition economies. *Economic Letters*, 94(3), 389-395.

Awolusi, O. D. (2012).Foreign Direct Investment and Economic Growth in Nigeria: A Vector Error Correction Modeling. *Journal of Research in Economics and International Finance (JREIF)*, 1(3), 58-69.

Ayadi, S. M. (2008). The Impact of External Debt on Economic Growth: A comparative study of Nigeria and South Africa.*Journal of Sustainable Development in Africa,* No.3, 2008.

Babu, J. O., Kiprop, S., Kalio, A. M. & Gisore, M. (2014). External Debt and Economic Growth in the East Africa Community. *African Journal of Business Management*, 8(21), 1011-1018.

Baldwin, R. E. (2002). Openness and growth: what's the empirical relationship.*NBER* 9578.

Banchs, A. G. & Mollejas, L. M. (2010). International monetary asymmetries and the central bank. *Journal of Post Keynesian Economics*, 32(3), 467–496.

Baridam, D. M. (2001). *Research methods in Administrative Sciences*. Shebrooke Associates, Port-Harcourt, Nigeria.

Bar-Ilan, A. & Lederman, D. (2007). International reserves and monetary policy. *Economics Letters*, 97(2), 170–178.

Bar-Ilan, A. & Marion, N. P. (2009). A macroeconomic perspective on reserve accumulation. *Review of International Economics*, 17(4), 802–823.

Bastourre, D., Jorge C. & Jarier, I. (2004). *Why Countries Accumulate Foreign Reserves? A Dynamic Panel Approach*. Banco Central De la Republica Argentina, Buenos Aries.

Baumgartner, T. & Burns, T. R. (1975). The Structuring of International Economic Relations. *International Studies Quarterly*, 19(2), 126-159.

Baumgartner, T., Buckley, W. & Burns, T. R. (1976). Unequal Exchange and Uneven Development: The Structuring of Exchange Patterns. *Studies in Comparative International Development*, 11(2): 51-72.

Bemde-Nabende, A., Ford, J., Sen, S. & Slater, J. (2002). Foreign Direct Investment in East Asia: Trends and Determinants. *Asia Pacific Journal of Economics and Business*, 6(1), 4-25.

Benaroya, F. & Janci, D. (1999). Measuring exchange rates misalignments with purchasing power parity estimates, in Exchange rate policies in emerging Asian countries, Stefan Collignon, Jean Pisani-Ferry and Yung Chul Park (eds.), Routledge, New York.

Benedict, R. B. & Nguyen, T. Q. (2003). External Debt, Public Investment, and Growth in Low-Income Countries, *IMF Working Paper* WP/03/249.

Berasaluce, J & Romero, J. (2017). Economic Growth and the External Sector: evidence from Korea, lessons for Mexico. *Estudios Economicos,* 32 (1), 95-131.

Berensmann, K. (2004). New Ways of Achieving Debt Sustainability beyond the Enhanced HIPC Initiative.*Intereconomics* 39(6): 321-330.

Berg, A. & Miao, Y. L. (2010). The Real Exchange Rate and Growth Revisited: The Washington Consensus Strikes Back? *IMF working paper*, WP/10/58.

Bhagwati, J. (1998). The Capital Myth: The Difference between Trade in Widgets and Dollars. *Foreign Affairs* 77, 7-12.

Blaug, M. (1978). *Economic Theory in Retrospect.* New Delhi, Vikas Publishing House Pvt. Ltd., 11 & 12.

Blonigen, B. & Wang, M. (2005). Inappropriate Pooling of Wealthy and Poor Countries in Empirical FDI Studies. In: Moran, T.H., E. Graham and M. Blomstrom (Eds.), Does Foreign Direct Investment Promote Development? *Institute of International Economics Press*, Washington, D.C.

Boboye, A. L. & Ojo, M. O. (2012). Effect of External Debt on Economic Growth and Development in Nigeria. *International Journal of Business and Social Science*, 3 (12), 297-304.

Borensztein, E., Gregorio, J. & Lee, J. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115-135.

Boyd, J. H. & Smith, B. D. (1992). Intermediate and the equilibrium allocation of Investment Capital Implication for economic Development. *Journal of Monetary Economic*, 30, 409-432.

Brander, J. & Krugman, P. (1983). A Reciprocal Dumping Model of International Trade. *Journal of International Economics,* 16 (3&4), 313 – 321.

Brander, J. (1981). Intra-Industry Trade in Identical Commodities. *Journal* of *International Economics*, 11 (1), 1 – 14.

Brooks, C. (2014). *Introductory Econometrics for Finance.* New York; Cambridge University Press 3rd Edition.

Brown, V. (2012). The Impact of Real Exchange Rate Volatility on Economic Growth in Kenya. *An Empirical Evidence http//www.google.com*

Carkovic, M. & Levine, R. (2005). Does Foreign Direct Investment Accelerate Economic Growth? In: Moran, T.H., E.M. Graham and M. Blomstrom, (Eds.), Does Foreign Direct Investment Promote Development? *Institute of International Economics Press*, Washington, DC.

Caves, R., (1996). *Multinational Enterprise and Economic Analysis*. Cambridge:Cambridge University Press, England.

CBN (2003). Monetary. Credit, Foreign Trade and Exchange Policy Guideline. *Economic and Financial Reviews*, 31(4), 49-82.

CBN (2012). Developments in External Sector; 3(2), 1-13.

CBN (2013). Statistical Bulletin. Central Bank of Nigeria.

CBN (2015). Statistical Bulletin. Central Bank of Nigeria.

Chaudhry, I. S., Akhtar, M. H., Mahmood, K., & Faridi, M. Z. (2011). Foreign exchange reserves and inflation in Pakistan: Evidence from ARDL modeling approach. *International Journal of Economics and Finance*, 3(1), 69–76.

Checherita, C. & Rother, P. (2010). The Impact of High and Growing Government Debt on Economic Growth: An Empirical Investigation for the Euro Area 1, European Central Bank,*Working Paper Series,* 1237.

Checherita-Westphal, C. & Rother, P. (2012). The impact of high government debt on economic growth and its channels: An empirical investigation for the Euro Area. *European Economic Review*, 56(7), 1392 – 1405.

Chen, C., Yao, S., Hu, P. & Lin, Y. (2016). Optimal government investment and public debt in an economic growth model. *China Economic Review*http://www.sciencedirect.com/science/article/pii/s1043951x16300906.

Chenery, H. B. & Stout, A. (1966). Foreign assistance and economic development. *American Economic Review*, 55, 679-733.

Cheung, Y. W. & Ito, H. (2009). Hoarding of international reserves: A comparison of the Asian and Latin American experiences. In R. Rajan, S. Thangavelu and R.A.Parinduri (Eds), Singapore: World Scientific. *Exchange Rate, Monetary and Financial Issues and Policies in Asia*, 77–115.

Chimobi, O. P. (2010). The Causal Relationship Among Financial Development, Trade Openness and Economic Growth in Nigeria. *International Journal of Economics and finance,* 2 (2).

Chongo, B. (2013). An econometric analysis of the impact of public debt on economic growth: the case study of Zambia. *An unpublished M Sc. Dissertation*, University of Zambia

Cohen, D. (1997). Growth and external debt: A new perspective on the African and Latin American tragedies, *Centre for Economic Policy Research Discussion Paper,* 1753.

Cooper, Richard. (1971). An Assessment of Currency Devaluation in Developing Countries. *Essays in International Finance,* 86.

Cuadros, A., Orts, V. & Talguacil, M. (2001). Openness and growth: Re-examining foreign direct investment, trade and output linkages in Latin America. *Center for Research in Economic Development and International Trade (CREDIT) Research Papers*.

Dada (2012). The effect of exchange rate volatility on economic growth in Nigeria in Umobong, E. C. & Inam, U. S. (2015). An Empirical Analysis of the Relationship between Exchange Rate Movements and Economic Growth in Nigeria. *European Journal of Business and Management,* 7 (30).

Danmola, R.A. (2013). The Impact of Exchange Rate Volatility on the Macro Economic Variables in Nigeria. *European Scientific Journal,* 9 (579).

Danson-Musyoki, G. P. (2012). The impact of real exchange rate volatility on economic growth: Kenyan evidence. *Business and Economic Horizons*, 59-75.

Dereje, A. E. (2013). The effect of external debt on economic growth–A panel data analysis on the relationship between external debt and economic growth.*Department of economics Magisteruppsats 30 hp, Soderton University*.

De-Janvry, A. & Kramer, F. (1979). The limits of unequal exchange. *Review of Radical Political Economy*, 114, 3-5.

Diaz-Alejandro, F. C. (1965). *Exchange-Rate Depreciation in a Semi-Industrialized Country*: The Experience of Argentina. Cambridge, Mass.: MIT Press.

Dixit, A. & Pindyck, R. (1994). *Investment under uncertainty*. Princeton University Press.

Djeri-wake, N. (2009). The Impact of Chinese Investment and Trade on Nigeria Economic Growth, African Trade Policy Centre (ATPC). *Economic Commission for Africa*, 77.

Dollar, D. (1992). Outward-oriented developing economies really do grow more rapidly: Evidence from 95 LDCs, 1976–1985. Economic Development and Cultural Change, 40 (3), 523–544.

Dos-Santos, T. (1970). The Structure of Dependence. *The American Economic Review*, 60, 231-236.

Driffield, N. (2001). The impact of domestic productivity of inward investment in the UK; *The Manchester School*, 69, 103 – 119.

Dritsaki, M., Dritsaki, C. & Adamopoulos, A. (2004). A causal relationship between trade, foreign direct investment and economic growth of Greece. *American Journal of Applied Sciences* 1, 230–235.

Dritsakis, N. & Stamatiou, P. (2016). Trade Openness and Economic Growth: A PanelCointegration and Causality Analysis for the Newest EU Countries. *The Romanian Economic Journal,* 59.

Drummond, P., Mrema, A., Roudet, S., & Saito, M. (2009). *Foreign Exchange Reserve Adequacy in East African community countries*. International Monetary Fund, Retrieved from https://www.imf.org/external/pubs/ft/dp/2009/afr0901.pdf.

Durham, J. B. (2004). Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth. *European Economic Review*, 48 (2), 285 –306.

Edwards, S. (1985). On the Interest-Rate Elasticity of the Demand for International Reserves: Some Evidence from Developing Countries. *Journal of International Money and Finance*, 4 (2), 287–295.

Edwards, S. (1989). *Real Exchange Rates, Devaluation and Adjustment: Exchange Rate Policy in Developing Countries*. Cambridge, Mass.: MIT Press.

Egbo, O. P. (2010). An Analysis of Foreign Direct Investment Inflow and Economic Growth in Nigeria, A thesis presented to the department of banking and finance, faculty of business administration, *university of Nigeria*, Enugu Campus.

Egwaikhide, C. I. (2012).The Impact of Foreign Direct Investment on Nigeria's Economic Growth; 1980-2009: Evidence from the Johansen's Co-integration Approach. *International Journal of Business and Social Science*, 3 (6).

Ehinomen, C. & Da'silva, D. (2014). Impact of Trade Openness on the Output Growth in the Nigerian Economy. *British Journal of Economics, Management & Trade* 4(5), 755-768.

Ehsani, M., Khanalipour, A. & Abbasi, J. (2009). Effect of exchange rate volatility on exports to Iran. *Journal of Economic Sciences*, 9(1), 13-34.

Eichengreen, B. (2008). The Real Exchange Rate and Economic Growth. *Commission on Growth and Development Working Paper*, 4.

Ekpo, A. H. (1995). Foreign direct investment: Evidence from time series data. *CBN Economic Financial Review*, 35(1), 59-78.

Ekwe, M. C. & Inyiama, O. I. (2014). Foreign Capital Flows and Growth of the Nigeria Economy: An Empirical Review. *International Journal of Economics and Finance*, 6 (4).

Eleanya, K. N. (2013). Openness and Economic Growth in Nigeria. *Journal of Education and Practice*, 4 (1).

Elhiraika, A. & Ndikumana, L. (2007). Reserves accumulation in African countries: Sources, motivations and effects. University of Massachusetts - *Amherst Economics Department Working Paper Series*, 24.

Elmendorf, D. & Mankiw, N. (1999). Government Debt.in Taylor, J. and Woodford, M. (eds.), *Handbook of Macroeconomics,* 1, 1615-1669.

Emerenini, F. M. & Nnanna, A. U. (2015). Debt Management and Economic Growth Empirical Evidence from Nigeria. *International Journal of Innovative research and Development*, 4 (1).

Emmanuel, A. (1972). *Unequal Exchange: A Study of the Imperialism of Trade*. New York and London: The Monthly Review Press.

Emmanuel, A. (1975). Unequal Exchange Revisited. *IDS Discussion Paper* 77.

Eniekezimene, F. A. & Apere, T. O. (2016).External Reserve Management and Economic Growth in Nigeria. *International Journal of Empirical Finance*, 5(2), 101-111.

Eun, C., Kili, R. & Lai, S. (2012). A Tale of Two Exchange Rates: South Africa's Dual-Rate Experiment, *https://www.frbatlanta.org/Documents/research/seminarkilic060112.pdf*.

Evans, S. & Egwakhe, A. (2008). External Reserves and the Nigeria Economy: The Dual folded Debate.*African journal of Business and Economic Research*, 3 (2 & 3), 28-41.

Ewetan, O. O. & Okodua, H. (2012). Econometric Analysis of Exports and Economic Growth in Nigeria.*http://jbmae.scientificpapers.org/wp-content/files/2054*.

Ezeabasili, V. N., Isu, H. O., & Mojekwu, J. N. (2011). Nigeria's External Debt and Economic Growth: An Error Correction Approach. *International Journal of Business Management*, 6(5), 156-170.

Fapeta, O. C. (2013). Foreign Exchange Management and the Nigerian Economic Growth(1960-2012). *An EmpiricalInvestigation*. http//www.google.com.

Fapetu, O. & Oloyede J. A. (2014). Foreign Exchange Management and the Nigerian economic growth. *European Journal of Business and Innovation Research,* 2(2), 19-31.

Faraji, K. & Makame, S. A. (2013). Impact of External Debt on Economic Growth: A Case Study of Tanzania. *Advances in Management and Applied Economics*. 3(4), 59-82.

Fazal, R. & Shah, M. (2016). External Sector and Its Impact on Economic Growth in Pakistan. *Journal of Applied Environmental and Biological Sciences,*6(5), 10-17.

Ferrando, R. Y. (2011). Relationship Between Exchange Rate Appreciation and Economic Growth in China (1987- 2008). *An Empirical Evidence*: http// www.goocle.com.

Financial Times (2017). Nigerian External Foreign Exchange Reserves.

Findlay, R. (1978), Relative Backwardness, Direct Foreign Investment, and Transfer of Technology: A Simple Dynamic Model. *Quarterly Journal of Economics*, (92), 1-16.

Fischer, S. (1998). Capital Account Liberalization and the Role of the IMF. *IMF Pursue Capital-Account Convertibility*, 1-10. Princeton, NJ: Prinston University.

Fitzivá, H. & Zídek, L. (2015). Impact of trade on economic growth in the Czech and Slovak Republics. *Economics and Sociology, 8*(2), 36–50.

Fosu, A. K. (1996). The Impact of External Debt on Economic Growth in Sub-Saharan Africa, *Journal of Economic Development*, 12 (1).

Fosu, A. K. (1999). The External Debt Burden and Economic Growth in the 1980s: Evidence from Sub-Saharan Africa. *Canadian Journal of Development Studies,* 2.

Fosu, K. (2009). The External Debt-Servicing Constraint and Public Expenditure Composition in Sub-Sahara Africa. *World Institute for Economic Research Working Paper*, 36.

Frankel, J. A. & Romer, D. (1999). Does trade cause growth? *American Economic Review*, 89 (3), 379–399.

Frimpong, J. M. & Oteng-Abayie, E. O. (2011). Bivariate Causality between Foreign Direct Investment and Economic growth in Ghana. *Journal of African Economics and Finance*, 2.

Fuller, W. A. (1976). *Introduction to statistical.* Time series, New York: Wiley Publisher.

Gbosi, A. N. (2005). *Contemporary issues in International Trade and Development*, Port Harcourt: France Sodek Associates.

Gbosi, A.N. (2005). *Modern Macroeconomics and Public Policy,* Port Harcourt: Sherbrooke Associates.

Georgios, K. (2003). Trade Openness and Economic Growth, can we Estimate the Precise Effects. *Applied Econometrics and International Development (AEEADE),* 3 (1), University of Illinois.

Ghosal, R. (2012). The External Sector and Economic Growth–Indian Experience. *Paper Prepared for the 32nd General Conference of The International Association for Research in Income and Wealth*.

Ghosh, A. R., Ostry, J. D. & Qureshi, M. S. (2014). Exchange rate management and crisis susceptibility: A reassessment. *IMF Working Paper Series*, WP/14/11.

Ghura, D. & Grennes, T. J. (1993). The Real Exchange Rate and Macroeconomic Performance in sub-Saharan Africa. *Journal of Development Economics*, 43(1), 155-174.

Gibson, B. (1980). Unequal exchange: some theoretical issues and empirical findings. *Review of Radical Political Economy*, 12(3), 15-35.

Gilbert, N. (2004). Trade Openness Policy, Quality of Institutions and Economic Growth. *CERDI*, France.

Gilpin, R. (1987). *The Political Economy of International Relations*. Princeton, NJ: Princeton University Press.

Gohar, M., Bhutto, N. A. & Butt, F. (2012). The Impact of External Debt Servicing on the growth of Low-Income Countries. *Sukkur Institute of Business Administration, Proceedings of 2nd International Conference on Business Management*. Available at: http://www.umt.edu.pk/icobm2012/pdf/2C-85P.pdf

Green, R. & Torgerson, T. (2007). Are high Foreign exchange reserves in emerging market a blessing or a burden? *Occasional Paper*, 6. www.treas.gov/offices/international-afairs/...paper.../reserves. PDF retrieved 28/3/2012

Gries, T. & Redlin, M. (2012). Trade Openness and Economic Growth: A Panel Causality Analysis. *Center for Integration Economics Working Paper*, 2011-06.

Gujarati, N. D. & Porter, D. C. (2009). *Basic Econometrics.* (Bolton) McGraw Fifth Edition.

Gylfason, T. & Schmidt, M. (1983). Does Devaluation Cause Stagflation? *Canadian Journal of Economics*, 16 (4), 641–54.

Habibi F., (2015). Does Trade Openness Influence Economic Growth? *International Journal of Economics and Business Administration*, 1(2), 120-127.

Hausmann, R., Pritchett, L. & Rodrik, D. (2005). Growth Accelerations. *Journal of Economic Growth*, 10 (4), 303-329.

Hayat, A. & Cahlik, T. (2017). FDI and Economic Growth: A Changing Relationship Across Country and Over Time. *MPRA,* 78577.

He, Q. (2010). Expanding varieties in the non-traded goods sector and the real exchange rate depreciation. *Journal ofinternational and global economic studies*, 19-38.

Hecksher, E. & Ohlin, B. (1933), *Interregional and International Trade,* Harvard UniversityPress, Cambridge, MA.

Henry, P. B. (2006). Stock Market Liberalization, Economic Reform and Emerging Market Equity Prices. Journal of Finance, 55(2), 529-564.

Herzer, D. (2013). Cross-country heterogeneity and the trade-income relationship. *World Dev*. 44, 194–211.

Ho, C. & McCauley, R. (2009). The domestic financial consequences of reserve accumulation: Some evidence from Asia. In R. Rajan, S. Thangavelu & R.A. Pariduri (Eds), Singapore: World Scientific. *Exchange Rate, Monetary and Financial Issues and Policies in Asia*, 117–153.

Hornborg, A. (2003). Cornucopia or Zero-Sum Game? The Epistemology of Sustainability. *Journal of World-Systems Research*, 9(2), 205-216.

Hua, P. (2011). The economic and social effects of real exchange rate: Evidence from the Chinese provinces. *Presentation made at international Conference on Social Cohesion and Development in OECD Development Centre*, Paris.

Huang. H. P. (2004). The Effect of Exchange Rate Movement on Economic Growth in Togo. Empirical Evidence: *httpl/www.google.com.*

Hunt, S. D. (2007). Economic Growth: Should Policy Focus on Investment on Dynamic Competition?*European Business Review.* 19(4), 279-291.

Hussain, M. E. & Haque, M. (2016). Foreign Direct Investment, Trade, and Economic Growth: An Empirical Analysis of Bangladesh. *Economies* 4 (7).

Hye, Q. M. A. & Lau, W. Y. (2015). Trade openness and economic growth: Empirical evidence from India. *Journal of Business Economics and management, 16*(1), 188–205.

Ibrahim W. (2011). External reserves holdings in Nigeria: Implications for investment, inflation and exchange rate. *Journal of Administration and Policy Research* 3(4), 106-112.

Ijirshar, V. U., Joseph, F. & Godoo, M. (2016). The Relationship between External Debt and Economic Growth in Nigeria. *International Journal of Economics & Management Sciences,* 6(1).

Ikechi, K. S., & Anayochukwu, O. B. (2013). Migrant's remittances and economic growth in Sub Saharan Africa: Evidence from Nigeria, Ghana and South Africa. *Interdisciplinary Journal of Contemporary Research in Business Research, 4*(10).

IMF (2016). Regional Economic Outlook, Sub-Saharan Africa Time for a Policy Reset.

International Monetary Fund (2003). *Guidelines for Foreign Exchange Reserves Management*. IMF. Washington, D.C. USA

International Monetary Fund (2003). *World Economic Outlook*. IMF. Washington, D.C. USA

International Monetary Fund (2004). *Guidelines for Foreign Exchange Reserve Management*, IMF, Washington D.C.

International Monetary Fund (2011). Implications of Asia's Regional Supply Chain for Rebalancing Growth. In *Regional Economic Outlook: Asia and Pacific Department*, Chapter III. Washington, April.

International Monetary Fund. (2012). *Regional Economic Outlook: Sub-Saharan Africa*. Washington, October.

International Monetary Fund. (2013). *Trade Interconnectedness: The World with Global Value Chains*. Paper SM/13/248, Washington.

International Monetary Fund. (2016). *Trade Integration and Global Value Chains in Sub-Saharan Africa*. Washington.

Iyoha, M. A. (1976). Demand for International Reserves in Less Developed Countries: A Distributed Lag Specification. *The Review of Economics and Statistics*, 58 (3), 351-355.

Iyoha, M. A. (1999). External Debt and Economic Growth in Sub-Saharan African Countries: an Econometric study. *AERC Research Paper,* 90, Nairobi, Kenya.

Iyoha, M. A. (2000). The Impact of external Debt Reduction on Economic Growth in Nigeria. *Nigeria Journal of Economic and Social Studies*, 42, 1-79.

Jakob, B. (2016). Impact of Exchange Rate Regimes on Economic Growth, Undergraduate. *Economic Review*, 12 (1).

Jeanne, O. (2007). International reserves in emerging market countries: Too much of a good thing. *Brookings Papers on Economic Activity*, 1, 56–79.

Jin, J.C. (2002). Openness, growth and inflation: evidence from South Korea, Faculty of Business Administration, *The Chinese University of Hong Kong Mimeo*.

Jinzhao (2012). Role of exchange rate and economic growth in China in Ahmad, A., Ahmad, N. & Ali, S. (2013). Exchange Rate and Economic Growth in Pakistan (1975-2011*), Munich Personal RePEc Archive*.

Kamal-Uddin, K. M., Rahman, M. M. & Quaosar, M. M. (2014). Causality between Exchange Rate and Economic Growth in Bangladesh. *European Scientific Journal November*, 10 (31).

Kandil, M. (2004). Exchange Rate Fluctuations and Economic Activity in Developing Countries: Theory and Evidence. *Journal of Economic Development*, 29 (1).

Khataee, M. & Mousavi, N. S. (2008). Effect of exchange rate fluctuations on the economic growth given the level of financial market development. *Journal of Economic Researches Iran*, 10(37), 1-19.

Khathlan, R. (2012). The link between remittances and economic growth in Pakistan: A boon to economic stability. *British Journal of Economics, Management & Trade, 2*(3), 167–185.

Khomo, M. M. & Aziakpono, M. (2016).The behaviour of the real effective exchange rate of South Africa: Is there a misalignment? *University of Stellenbosch Business School*.

Kim, D. H. & Lin, S. C. (2009). Trade and growth at different stages of economic development. *Journal of Developmental Studies* 45 (8), 1211–1224.

Kingsley, O.K. (2004). Is Trade Openness Valid for Nigeria's Long – Run Growth: A cointegration Approach.*Working Paper: African Institute for Applied Economics*, Enugu.

Klein, M. & Shambaugh, J. (2010). *Exchange rate regimes in the modern era*, Cambridge: MIT Press.

Korsu, R. D. (2007). Fiscal Deficit and the External Sector Performance of Sierra Leone: A Simulation Approach. *Journal of Economic and Monetary Integration*, 9(1).

Kose, M. A.,Prasad, E., Rogoff, K. & Wei, S. J. (2006). Financial Globalization: A Reappraisal. *NBER Working Paper*, 12484.

Kpakol, F. B. (2012). Foreign exchange management and balance of payments in Nigeria. A PhD thesis presented at the Postgraduate School, Rivers State University of Science and Technology, Nkpolu-Oroworukwo, Port Harcourt in fulfillment of the requirements for the award of Doctor of Philosophy (Phd) degree in Banking and Finance of the Department of Banking and Finance.

Kravis, I. B. (1956). Availability & Other Influences on the Commodities Composition of Trade. *Journal of Political Economy,* 64, 143 – 155.

Krugman, P. (1988). Financing vs. forgiving a debt overhang: Some analytical issues. *NBER Working Paper*, 2486.

Krugman, P. R. (1979). Increasing Returns, Monopolistic Competition and International Trade. *Journal of International Economics,* 9 (4), 469 - 479.

Krugman, P. R. (1984).Import Promotion as Export Promotion in - Henry Kierzkowski (Ed) - *Monopolistic Competition and International Trade,* Oxford, Oxford University Press.

Krušković, B. D. & Maričić, T. (2015). Empirical Analysis of the Impact of Foreign Exchange Reserves to Economic Growth in Emerging Economics, *Applied Economics and Finance*, 2 (1).

Kurihara, Y. & Fukushima, A. (2016). Openness of the Economy, Diversification, Specialization, and Economic Growth. *Journal of Economics and Development Studies*, 4 (1) 31-38.

Kyereboah-Coleman, A. (2009). Reserves and Foreign Exchange in the Macroeconomic Context. *Presentation at Regional Course on Optimising Reserves and Foreign Exchange Management for Income Generation Organized by WAIFEM*, (11–15) Accra, Ghana

Lanedell-Mills, J. N. (1989). The Demand for International Reserves and their Opportunity Cost. *IMF Staff Papers*, 36.

Levine, R. & Zervos, S. (1998). Stock market, banks and economic growth.*American Economic Review,* 88(1), 537-558.

Levy-Yeyati, E. & Sturzenegger, F. (2003). To Float or to Fix: Evidence on the Impact of Exchange Rate Regimes on Growth. *The American Economic Review.*

Liang, Z. (2006). Threshold Estimation on the Globalization Poverty Nexus: Evidence from China. *Research Paperat UNU-WIDER United Nations University* (57).

Linder S. B. (1961). *An Essay on Trade & Transformation.* New York, John Wiley.

Lucas, R. (1988). On the Mechanics of Economic Development. *Journal of Monetary Economics* 22, 2-42.

MacDonald, R. R. & Vieira, F. V. (2010). A Panel Data Investigation of Real Exchange Rate Misalignment and Growth. *CESifo Working Paper Series,* 3061.

Maghyereh, A. & Hashemite, U. (2003). External Debt and Economic Growth in Jordan: The Threshold Effect.*Economia Internazionale/International Economics,* 56 (3), 337-355.

Malik, S., Hayat, M. K. & Hayat, M. U. (2010). External Debt and Economic Growth: Empirical Evidence from Pakistan. *International Research Journal of Finance and Economics*, 44.

Malikane, C. & Chitambara, P. (2017). Foreign Direct Investment, Democracy and Economic Growth in Southern Africa. *African Development Review*, 29 (1), 92–102.

Marc-André, G. & Nicolas, P. (2005). An Empirical Analysis of Foreign Exchange Reserves in Emerging Asia. *Bank of Canada Working Paper*, No. 38.

Markussen, J. R. & Vernable, A. J. (1998).Multinational firms and the new trade theory. *Journal of International Economics*, 46: 183–203.

Mbanasor, C. O. & Okere, P. A. (2012). External Debt: A Tool For, or a Threat to the Economic Growth of Nigeria. *International Journal of Science and Research (IJSR)*.

Meade, J. E. (1958).Is the National Debt a Burden?.*Oxford Economic Papers, New Series*, 10(2), 163-183.

Mehdi, B., Arezoo, N. & Alireza, J. (2014). The Effect of Exchange Rate Fluctuations on Economic Growth Considering the Level of Development of Financial Markets in Selected Developing Countries. *Asian Economic and Financial Review*, 4(4), 517-528.

Mencinger, J. Aristovnik, A. & Verbič, M. (2014). The Impact of Growing Public Debton Economic Growth in the European Union. *Working Paper*, 80.

Mendoza, R.U. (2004). International Reserve-Holding in the Developing World: Self Insurance in a Crisis-Prone Era? *Emerging Markets Review*, 5(1), 61–82.

Mercan, M., Gocer, I., Bulut, S. & Dam, M. (2013). The Effect of Openness on Economic Growth for BRIC-T countries: Panel Data Analysis. *Eurasian Journal of Business and Economics*, 6(11), 1-14.

Meshak, I. (2014).External Reserve Composition and Economic Growth in Nigeria: A Time Series Analysis. *Canadian Open Economics Journal*, 1(1), 1 − 13.

Mewadi, M. C. (2013). Impact of Real Exchange Rate Misalignment on Economic Growth in Kenya (1993-2013). *AnEmpirical Investigation*: http// google.com.

Miankhel, A. K., Thangavelu, S. M. & Kalirajan, K. (2016). Foreign Direct Investment, Exports, and Economic Growth in South Asia and Selected Emerging Countries: A Multivariate VAR Analysis. *Available online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1526387*.

Michael. O. & Sulaiman A. (2012). External Debt, Economic Growth and Investment in Nigeria. *European Journal of Business and Management*, No.11, 2012.

Mireille, L. (2007). The Impact of the Real Exchange Rate on Manufacturing Exports in Benin, Africa region. *Working Paper Series*, 107.

Mohanty, M. S. & Turner, T. (2006). Foreign Exchange Reserves Accumulation in Emerging Markets: What are the domestic Implications.*B/SQuarterly Review,* 39-52.

Momoh, A. & Hundeyin, T. (1999). *Perspectives on Political Economy* in Anifowose, R. and Enemuo, F. eds Elements of Politics. Lagos, Malthouse Press Limited.

Moosa, I. A., (2002). *Foreign Direct Investment; Theory, Evidence and Practice*. Palgrave, New York. Anthony Rowe Limited.

Morley, S. A. (1992). On the Effect of Devaluation during Stabilization Programs in LDCs. *Review of Economics and Statistics,* 74 (1), 21–27.

Muoghalu, M. I, Ezirim, C. B. & Elike, U. (2007). Foreign investment burden, exchange rates and external debt crises in Nigeria: An empirical extension. *Banks and Bank Systems,* 2 (3).

Musila, J. W., & Yiheyis, Z. (2015). The impact of trade openness on growth: The case of Kenya. *Journal of Policy Modeling,* 37(2), 342–354.

Musyoki, D., Pokhariyal, G. P. & Pundo, M. (2012). The impact of real exchange rate volatility on economic growth: Kenyan evidence, *BEH*, 7 (1), 59-75. http://ageconsearch.umn.edu/bitstream/249373/2/v7_1_5.pdf

Musyoki, D., Pokhariyal, G. P. & Pundo, M. (2012). The impact of real exchange rate volatility on economic growth: Kenyan evidence. *Business and Economic Horizons*, 7(1), 59-75.

Musyoki, K. C. (2010). Impact of Real Exchange Rate Behavior and Economic Growth in Sierra Leone (1990-2009). *An Empirical Investigation: http// google.com*.

Nduka, E. K. (2013). Openness and Economic Growth in Nigeria. *Journal of Education and Practice*, 4 (1).

Nersisyan, Y. & Wray, L. R. (June 2010). Does Excessive Sovereign Debt Really Hurt Growth? A Critique of This Time Is Different, by Reinhart and Rogoff. *Working Paper*, 603.

Nkoro, E. & Furo, A. O. (2012). Foreign capital inflows and economic growth in Nigeria: An empirical approach. *Academic Journal of Interdisciplinary Studies, 1*(2)*.*

Nunnenkamp, P & Spatz, J. (2003). Foreign Direct Investment and Economic Growth in developing Countries. How Relevant are Host country and Industry Characteristic?.*kiet Working paper one*, 1176.

Nwaeze, N. C. (2017). External Sector Variables and Macroeconomic Stability in Nigeria: ARDL-Error Correction Approach. *Greener Journal of Economics and Accountancy*, 6(2), 012-025, http://doi.org/10.15580/GJEA.2017.2.083117116

Nweke, A. E. (1999). *Practical Approach to Research Methods and Statistics.* Onitsha Onwubiko Printing and Packaging Ltd.

Nwoke, C. (1990).*The Origins and Dimension of Nigeria External debt: In Nigeria External Debt Crisis; Its Management*. Edd by Adebayo O. Olukosi. Malthouse Press Ltd, Pg 42 – 61.

Obaseki, P. J. (2007). Sources, Currency Composition and uses of External Reserves. CBN Bullion, 32 (2).

Obstfeld, M., Shambaugh, J. C. & Taylor, A. M. (2010). Financial stability, the trilemma, and international reserves. *Journal of Macroeconomics*, 2(2), 57–94.

Odusola A. F. & Akinlo, A. E. (1995). Trade, growth and causality in Nigeria. *Paper for the 1995 Annual Conference of NES*.

OECD (1996). OECD Benchmark Definition of Foreign Direct Investment - Third edition. Paris; Organization for Economic Co-operation and Development.

OECD (2001), Foreign Direct Investment and Sustainable Development. *Financial Market Trends*, 79.

Ogunlana, O. A. (2013). Nigeria and the burden of external debt: *The need for debt relief*.

Ogunmuyiwa, M. S. (2011). Does External Debt Promote Economic Growth?.*Current Research Journal of Economic Theory*. 3(1), 29-35.

Ojo, M. O. & Sulaiman L. A. (2012). External Debt, Economic Growth and Investment in Nigeria. *European Journal of Business and Management*, 11, 67-75.

Okonjo-Iweala, N., Soludo, C. & Muhtar, M. (eds.) (2003). *The Debt Trap in Nigeria*. Trenton NJ: Africa World Press Inc.

Okororie, U. H. (2008). *New Approach to International Finance*, CIBN Press LTD, Lagos.

Omade, S. I. & AbdulazeezB, A. (2011). External Reserves Management and Economic Development in Nigeria (1980-2008). *European Journal of Business and Management*, 3 (11).

Omoh, G. (2011). Taxation and Economic Growth in Ghana. *NBER working paper*, 11366.

Onwumere J.U.J (2009). *Business and Economic Research methods.* (Enugu) Vougasen limited 2nd Edition

Onyemaechi, J. O. (2013). Trade Balances and Economic Progress in Nigeria: Analysis of the Oil and Non-Oil Sub-Sectors, *International Journal of Business and Social Science (4) 8.*

Osinubi, T. S. and Amaghionyeodiwe, L. A. (2010). Foreign Private Investment and Economic Growth in Nigeria." *REBS Review of Economic and Business Studies,3 (1),105 – 127.*

Osuji C. C. & Ebiringa O. T. (2012). Analysis of effect of external reserves management on macroeconomic stability of Nigeria. *International Journal of Business Managementand Economic Research.* 3(6), 646-654.

Otepola, Ayorinde, 2002. FDI as a factor of Economic Growth in Nigeria. Dakar, Senegal. *African Institute for Economic Development and Planning (IDEP).*

Ouyang, A.Y. & Rajan, R.S. (2014). What determines external debt tipping points? *Journal of Macroeconomics*, 39(A), 215 – 225.

Oyatoye, E. O., Arogundade, K. K, Adebisi, S. O & Oluwakayode, E. F. (2011). Foreign Direct Investment, Export and Economic Growth in Nigeria. *European Journal of Humanities and Social Sciences*, 2 (1).

Oyeyide, T.A. (2005). Capital flow and Economic Transformation: A Conceptual Framework on proceedings of Central Bank of Nigeria. *5th Annual Monetary Policy Conference with the theme,* 10-11.

Pagan, A., & Wickens, M. (1989). A survey of some recent econometric methods. *Economic Journal*, 99(398), 962-1025.

Pattillo, C., Poirson, H. & Ricci, R., (2002). External Debt and Growth. *IMF Working Paper,* 02(69).

Pauly, P. (2000). *A Framework for a Macro-econometric Model of an Emerging Small Open Economy*. Revised Draft, Institute of Policy Analysis, Toronto.

Peter, W. & Olivier, C. (2006). *Trade, Diversification and Growth in Nigeria*. The World Bank, Washington DC.

Phillips, P. C. B. & Perron, P. (1988). Testing for units roots in a time series regression. *Biometrika*, 75(1), 335-346.

Pius, N. M. (2006).The Relationship between Exchange Rate and Economic Growth in Ghana (1980-2005). *EmpiricalInvestigation*: httpll google.com.

Polat, A., Shahhaz, M., Rehman, I. V. & Satti, S. (2015). Revisiting linkages between financial development, trade openness and economic growth in South Africa: Fresh evidence from combined cointegration test. *Quality andQuantity, 49*(2), 785–803.

Polterovich, V. & Popov, V. (2003). Accumulation of foreign exchange reserves and long term growth. *MRPA Paper 20069*. Retrieved from http://mpra.ub.uni-muenchen.de/20069/.

Posner, M. V. (1961). International trade & Technical change. *Oxford Economic Papers,* 13 (3), 323 - 341.

Prabirjit, S. (2007). Trade Openness and Growth: Is there Any Link?*Munich personal RePEe ArChive, MPRA*.

Prasad, E. & Wei, S. J. (2007). *The Chinese Approach to Capital Inflows: Patterns and Possible Explanations. In Capital Controls and Capital Flows in Emerging Economics: Policies, Practices and Consequences*. Sebastian Edwards, 421-80. Chicago, IL: University of Chicago Press.

Prasad, E., Rajan, R. & Subramanian, A. (2007). Foreign Capital and Economic Growth.*Brookings Papers on Economic Activity*, 1, 153-230.

Ramzan, M. & Ahmad, E. (2014). External debt growth nexus: Role of macroeconomic policies. *Economic Modelling*, 38, 204–210.

Ranciere, (2006). Optimum size of currency reserves and economic growth in Shrestha, P. K. (2016). Macroeconomic Impact of International Reserves: Empirical Evidence from South Asia.*NRB Working Paper,* 32.

Reinhart, C, M. & Rogoff, K. S. (2009). Growth in a Time of Debt, prepared for the American Economic Review Papers and Proceedings, available at http://www.aeaweb.org/aea/conference/ program/retrieve.php?pdfid=460

Ricardo, D. (1817).Principles of political economy.in Saffra, P. (Ed.) (1951), *The Works and Correspondence of David Ricardo,* Vol. 1,Cambridge University Press, London.

Rivera-Batiz, L. & Romer, P. (1991a). International Trade with Endogenous Technological Change', *European Economic Review*, 82(942-963).

Rivera-Batiz, L. & Romer, P. (1991b). Economic Integration and Endogenous Growth'. *Quarterly Journal of Economics*, 106, 531-555.

Robert, E., Morgan, R. E. & Katsikeas, C. S. (1997). Theories of international trade, foreign direct investment and firm internationalization: a critique. *Management Decision* 35(1), 68–78.

Rodrick, D. & Subramanian, A. (2008). Why Did Financial Globalization Disappoint? http//ksghome .harvard.edu/-drodrick/Why_Did_ FG_Disappoint_ March_24_2008.pdf.

Rodrik, D. & Rodriguez, F. (1999). Trade Policy and economic growth: a skeptic's guide to the Cross – national evidence.*NBER,* 27081.

Rodrik, D. (2006). The social cost of foreign exchange reserves. *International Economic Journal*, 20(3), 253–266.

Rodrik, D. (2008). The Real Exchange Rate and Economic Growth. Brookings Papers 37 on Economic Activity, 2, 365–412.

Romer, P. M. (1986). Increasing returns and long- run growth. *Journal of Political economy*, 94 (5), 1002–1037.

Romer, P. M. (1990). Endogenous Technological Change. *Journal of political economic*', 98, 1011-1023.

Romer, P. M.(1993). Idea gaps and object gaps in economic development. *Journal of Monetary Economics,* 32, 215-234.

Romero, A. M. (2011). Comparative Study: Factors that Affect Foreign Currency Reserves in China and India. *The Park Place Economist*, 13.

Ruxanda, G. & Muraru, A. (2010). FDI and economic growth: Evidence from simultaneous equation models. *Romanian Journal of Economic Forecasting*, 1, 45-57.

Salvatore, D. (2000). *International Economics,* Singapore: John Willey and Sons.

Santos-Paulino, A. & Thirlwall, A. P. (2004). The impact of trade liberalization on exports, imports and the balance of payments of developing countries. *The Economic Journal*, 114, 50-72.

SARB (2017). South African Reserve Bank.

Schnabel, G. (2008). Exchange rate volatility and growth in small open economy at the EMU periphery. *Leipzing University*.

Shah, M. & Fazal, R. (2016). External Sector and Its Impact on Economic Growth in Pakistan, Journal of Applied Environmental and Biological Sciences, 6(5S),10-17.

Shaikh, A. (1980).Foreign trade and the law of value: Part II. Science and Society, 44(1), 27-57.

Shameen, A., Moon, I. (2005). Asia cannot live by T-notes alone, Business week Online, June 6, www.businessweek.com/magazine/content/05_23/b3936141_mz035.htm

Shrestha, P. K. (2016). Macroeconomic Impact of International Reserves: Empirical Evidence from South Asia.*NRB Working Paper*, 32.

Sibanda (2012). The impact of real exchange rate and economic growth in South Africa in Umobong, E. C. & Inam, U. S. (2015). An Empirical Analysis of the Relationship between Exchange Rate Movements and Economic Growth in Nigeria. *European Journal of Business and Management,* 7 (30).

Siddique, A., Selvanathan¸ E. A. & Selvanathan¸ S. (2015). The impact of external debt on economic growth: empirical evidence from highly indebted poor countries. *University of Western Australia.*

Sinha, D. & Sinha, T. (2001). Openness, investment and economic growth in Asia. *Indian Economic Journal*, 49(4), 90-95.

Sinha, T. & Sinha, D. (1996). The Relationship between Openness and Economic Growth: Post War Evidence from 124 Countries.*Seoul Journal of Economics*.

Skehu, A. A. (2012). Exchange Rate Volatility, Trade Flows and Economic Growth in a Small Open Economy. Evidence from Nigeria. *An Empirical Investigation*.

Smith, A. (1776).*An Inquiry into the Nature and Causes of the Wealth of Nations,* edited by E.Cannan (1961) and reprinted by Methuen, London.

Sokvi, D., Villaverde, J., & Maza, A. (2015). Trade openness, income levels, and economic growth: The case of developing countries. *Journal of International Trade and Economic Development, 24*(6), 860–882.

Solow, R. M. (1956). A contribution to the theory of economic growth. *Quarterly journal of Economics,* 70,65-94.

Soludo, C. (2003). Debt Poverty and Inequality, in Okojo Iweala, Soludo, and Muntar (Eds). The debt trap in Nigeria, African World Press NJ. 23-74.

South African Reserve Bank (2017). Quarterly Bulletin.

Soumaré, I. & Tchana T. F. (2015).Causality between FDI and financial market development: Evidence from emerging markets.*World Bank Economic Review Journal, 2015*

Stiglitz, J. (2006). Making Globalization Work. New York: W.W. Norton and Company.

Stiglitz, J. E. (2003). Globalization and its Discontents, New York: Norton.

Summers, L. H. (2000). International Financial Crises: Causes, Prevention and Cures.*American Economic Review*, 90(2), 1594-1638.

Tang, D. (2015). Has the Foreign Direct Investment Boosted Economic Growth in the European Union Countries?*Journal of International Global Economics Studies,* 8, 21–50.

Toulaboe (2007). The relationship between real exchange rate misalignment and economic growth in Brazil in Umobong, E. C. & Inam, U. S. (2015). An Empirical Analysis of the Relationship between Exchange Rate Movements and Economic Growth in Nigeria. *European Journal of Business and Management,* 7 (30).

Trejos, S. & Barboza, B. (2015). Dynamic estimation of the relationship between trade openness and output growth in Asia. *Journal of Asian Economics,*36, 110–125.

Udeh, S. N., Ugwu, J. I. & Onwuka, I. O. (2016).External Debt and Economic Growth: The Nigeria Experience. *European Journal of Accounting Auditing and Finance Research* 4(2), 33-48.

Udo A. B. & Antai, A. S. (2014). Opportunity Cost of Nigeria's External Reserves. *Journal of Economics and Finance.* 3(5), 7-16.

Udoka, C. O. (2010). Relationship between External Debt Management Policies and Economic Growth in Nigeria (1970-2006), *International Journal of Financial Research,* 1.

Ulaşan, B. (2015). Trade openness and economic growth: panel evidence. *Applied Economics Letter,* 22 (2), 163–167.

Umeora, C. E. (2013). Foreign Exchange Reserves (Fer) Accumulation and Macro-Economic Stability: The Nigerian Experience, *International Journal of Business and Management Invention,* 2 (9), 150-157.

Umesh, B., & Pratikshva, S. (2015). Causality between trade and economic growth in a least developing economy: Evidence from Nepal. *Journal of Developing Areas, 49*(4), 197–213.

Umobong, E. C. & Inam, U. S. (2015). An Empirical Analysis of the Relationship between Exchange Rate Movements and Economic Growth in Nigeria. European Journal of Business and Management, 7 (30).

Umoh, O. J., Jacob, A. O. & Chuku, A. C. (2012). Foreign Direct Investment and Economic Growth in Nigeria: An Analysis of the Endogenous Effects. Current Research Journal of Economic Theory 4(3), 53-66.

Usman A. & Ibrahim W. (2010). External Reserve Holding in Nigeria: Implications for Investment, Inflation and Exchange Rate. Journal of Economics and International Finance, 2 (9).

Utomi, O. W. (2014). The Impact of External Debt on Economic Growth in Nigeria, a presentation made at the Department of Economics and Development Studies. *College of Development Studies, Covenant University, Ota, Ogun State*.

Uzoma, C. A. & Kalu, U. D. (2015). Nigerian's Management of the External Debt: Issues, Challenges and Prospects. *International Journal of Financial Economics* 4 (4), 195-208.

Vernon, R. (1966). International investment and international trade in the product cycle. *Quarterly Journal of Economics,* May, 190-207.

Vernon, R. (1971), *Sovereignty at Bay,* Basic Books, New York, NY.

Vu, T. B. & Noy, I. (2009). Sectoral analysis of foreign direct investment and growth in the developed countries. *Journal of International Financial Markets Institutions Money*, 19, 402-413.

Wallerstein, I. (2004). *World-Systems Analysis: An Introduction. Durham*, NC: Duke University Press.

Wells, L. T. (1968). A product life cycle for international trade?.*Journal of Marketing,* 33, 1-6.

Wells, L. T. (1969). Test of a product cycle model of international trade, *Quarterly Journal of Economics,* 152-162.

Wooldridge, J. M. (2006). *Introductory Econometrics. A modern Approach* (3rd edition). Thomson South-Western. Steven Momper Publishers, Canada

World Bank (2014). South Africa Economic Update Focus on Export Competitiveness. *The International Bank for Reconstruction and Development*.

World Bank (2015). South Africa Economic: Update Jobs and South Africa's Changing Demographics. *The International Bank for Reconstruction and Development.*

World Bank (2017). Fact Book. Central Intelligence Agency. *www.cia.gov/library/publications/theworldfactbook.com*

Yanikaya, H. (2003). Trade openness and economic growth: A Cross country empirical investigation. *Journal of Development Economics* 72, 57 – 89. College of Business and Administrative sciences, Celal Bavar University.

Zaghdoudi, K., Mezni M. & Djebali, N. (2016). External Debt & Economic Growth: Case of Tunisia. *International Journal of Economics and Finance*; 8 (6).

Zaghdoudi, K., Mezni, M. & Djebali N. (2016). External Debt & Economic Growth: Case of Tunisia. *International Journal of Economics and Finance*; 8 (6), 129-140.

Zahonogo, P. (2017). Trade and economic growth in developing countries: Evidence from sub-Saharan Africa. *Journal of African Trade*, JAT-00012, 16.

Zeren, F. & Ari, A. (2013). Trade openness and economic growth: a panel causality test. *International Journal of Business and Social Science,* 4, 317–324.

Zhou, Y. (2009). International reserves and fiscal policy in developing countries. *Review of International Economics*, 17(5), 942–960.

Zouhaier, H. & Fatma, M. (2014). Debt and Economic Growth. *International Journal of Economics and Financial Issues* 4(2), 440-448.

Appendix

Countries-Nigeria

Appendix I: Unit root For EXRATE

Null Hypothesis: D(NIG_EXRATE_$) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=2)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-3.559722	0.0503
Test critical values:	1% level		-4.284580	
	5% level		-3.562882	
	10% level		-3.215267	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(NIG_EXRATE_$,2)				
Method: Least Squares				
Date: 11/04/17 Time: 12:31				
Sample (adjusted): 1988 2016				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NIG_EXRATE_$(-1))	-0.806768	0.226638	-3.559722	0.0013
C	-0.101070	5.731216	-0.017635	0.9861
@TREND("1984")	0.413510	0.298783	1.383981	0.1773
R-squared	0.325044	Mean dependent var		1.834990
Adjusted R-squared	0.276832	S.D. dependent var		17.32957
S.E. of regression	14.73694	Akaike info criterion		8.310357
Sum squared resid	6080.966	Schwarz criterion		8.449130
Log likelihood	-125.8105	Hannan-Quinn criter.		8.355594
F-statistic	6.742082	Durbin-Watson stat		1.761289
Prob(F-statistic)	0.004072			

Source: Researchers Computation using E-views 9.5

Appendix II: Unit root for EXTDEBT

Null Hypothesis: D(NIG_EXTDEBT_$) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=2)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-4.916653	0.0022
Test critical values:	1% level		-4.284580	
	5% level		-3.562882	
	10% level		-3.215267	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(NIG_EXTDEBT_$,2)				
Method: Least Squares				
Date: 11/04/17 Time: 12:35				
Sample (adjusted): 1988 2016				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NIG_EXTDEBT_$(-1))	-0.931383	0.189434	-4.916653	0.0000
C	1.89E+09	2.23E+09	0.847919	0.4037
@TREND("1984")	-1.24E+08	1.17E+08	-1.058146	0.2990
R-squared	0.463457	Mean dependent var		-5550645.
Adjusted R-squared	0.425133	S.D. dependent var		7.48E+09
S.E. of regression	5.67E+09	Akaike info criterion		47.84616
Sum squared resid	9.00E+20	Schwarz criterion		47.98494

Log likelihood	-738.6155	Hannan-Quinn criter.		47.89140
F-statistic	12.09298	Durbin-Watson stat		1.941010
Prob(F-statistic)	0.000164			

Source: Researchers Computation using E-views 9.5

Appendix III: Unit root For EXTRES

Null Hypothesis: D(NIG_EXTRES_$) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=2)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-3.999563	0.0193
Test critical values:	1% level		-4.284580	
	5% level		-3.562882	
	10% level		-3.215267	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(NIG_EXTRES_$,2)				
Method: Least Squares				
Date: 11/04/17 Time: 12:36				
Sample (adjusted): 1988 2016				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NIG_EXTRES_$(-1))	-0.727691	0.181943	-3.999563	0.0004
C	1.44E+09	2.53E+09	0.570952	0.5726
@TREND("1984")	-48085109	1.31E+08	-0.366983	0.7164
R-squared	0.363993	Mean dependent var		-59129032
Adjusted R-squared	0.318564	S.D. dependent var		7.89E+09
S.E. of regression	6.52E+09	Akaike info criterion		48.12501
Sum squared resid	1.19E+21	Schwarz criterion		48.26379
Log likelihood	-742.9377	Hannan-Quinn criter.		48.17025
F-statistic	8.012331	Durbin-Watson stat		2.015168
Prob(F-statistic)	0.001772			

Source: Researchers Computation using E-views 9.5

Appendix IV: Unit root for FDI

Null Hypothesis: D(NIG_FDI_$) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=2)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-6.641264	0.0000
Test critical values:	1% level		-4.284580	
	5% level		-3.562882	
	10% level		-3.215267	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(NIG_FDI_$,2)				
Method: Least Squares				
Date: 11/04/17 Time: 12:37				
Sample (adjusted): 1988 2016				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NIG_FDI_$(-1))	-1.246282	0.187657	-6.641264	0.0000
C	3.36E+08	4.92E+08	0.684325	0.4994
@TREND("1984")	-10924553	25518619	-0.428101	0.6719
R-squared	0.612382	Mean dependent var		35101531
Adjusted R-squared	0.584695	S.D. dependent var		1.96E+09

S.E. of regression	1.26E+09	Akaike info criterion	44.84140
Sum squared resid	4.46E+19	Schwarz criterion	44.98017
Log likelihood	-692.0416	Hannan-Quinn criter.	44.88663
F-statistic	22.11807	Durbin-Watson stat	1.958308
Prob(F-statistic)	0.000002		

Source: Researchers Computation using E-views 9.5

Appendix V: Unit root For GDP

Null Hypothesis: D(NIG_GDP_$) has a unit root			
Exogenous: Constant, Linear Trend			
Lag Length: 0 (Automatic - based on SIC, maxlag=2)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.012342	0.0001
Test critical values:	1% level	-4.284580	
	5% level	-3.562882	
	10% level	-3.215267	
*MacKinnon (1996) one-sided p-values.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(NIG_GDP_$,2)			
Method: Least Squares			
Date: 11/04/17 Time: 12:38			
Sample (adjusted): 1988 2016			
Included observations: 29 after adjustments			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NIG_GDP_$(-1))	-1.220167	0.202944	-6.012342	0.0000
C	-6.21E+09	1.19E+10	-0.523103	0.6050
@TREND("1984")	2.62E+09	7.84E+08	3.343649	0.0024
R-squared	0.565514	Mean dependent var		-4.96E+08
Adjusted R-squared	0.534479	S.D. dependent var		4.46E+10
S.E. of regression	3.04E+10	Akaike info criterion		51.20561
Sum squared resid	2.59E+22	Schwarz criterion		51.34438
Log likelihood	-790.6870	Hannan-Quinn criter.		51.25085
F-statistic	18.22196	Durbin-Watson stat		1.890016
Prob(F-statistic)	0.000009			

Source: Researchers Computation using E-views 9.5

Appendix VI: Unit root For TRADINT

Null Hypothesis: D(NIG_TRADINT_$) has a unit root			
Exogenous: Constant, Linear Trend			
Lag Length: 0 (Automatic - based on SIC, maxlag=2)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.984578	0.0000
Test critical values:	1% level	-4.284580	
	5% level	-3.562882	
	10% level	-3.215267	
*MacKinnon (1996) one-sided p-values.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(NIG_TRADINT_$,2)			
Method: Least Squares			
Date: 11/04/17 Time: 12:39			
Sample (adjusted): 1988 2016			
Included observations: 29 after adjustments			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NIG_TRADINT_$(-1))	-1.268380	0.181597	-6.984578	0.0000
C	-0.007239	0.015627	-0.463256	0.6468
@TREND("1984")	0.000261	0.000812	0.321604	0.7501

R-squared	0.635355	Mean dependent var	0.001290
Adjusted R-squared	0.609309	S.D. dependent var	0.064580
S.E. of regression	0.040366	Akaike info criterion	-3.489905
Sum squared resid	0.045623	Schwarz criterion	-3.351132
Log likelihood	57.09353	Hannan-Quinn criter.	-3.444668
F-statistic	24.39355	Durbin-Watson stat	1.964869
Prob(F-statistic)	0.000001		

Source: Researchers Computation using E-views 9.5

South Africa

Appendix VII: Unit root For EXRATE

Null Hypothesis: D(SA_EXRATE_$) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=2)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.160319	0.0000
Test critical values:	1% level	-3.661661	
	5% level	-2.960411	
	10% level	-2.619160	
*MacKinnon (1996) one-sided p-values.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(SA_EXRATE_$,2)			
Method: Least Squares			
Date: 11/04/17 Time: 12:43			
Sample (adjusted): 1988 2016			
Included observations: 29 after adjustments			

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(SA_EXRATE_$(-1))	-0.894338	0.145177	-6.160319	0.0000
C	-1.094664	1.470968	-0.744180	0.4628
R-squared	0.566838	Mean dependent var		0.970968
Adjusted R-squared	0.551901	S.D. dependent var		11.91269
S.E. of regression	7.974374	Akaike info criterion		7.052684
Sum squared resid	1844.129	Schwarz criterion		7.145200
Log likelihood	-107.3166	Hannan-Quinn criter.		7.082842
F-statistic	37.94953	Durbin-Watson stat		2.029373
Prob(F-statistic)	0.000001			

Source: Researchers Computation using E-views 9.5

Appendix VIII: Unit root For EXTDEBT

Null Hypothesis: D(SA_EXTDEBT_$) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=2)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.834616	0.0005
Test critical values:	1% level	-3.661661	
	5% level	-2.960411	
	10% level	-2.619160	
*MacKinnon (1996) one-sided p-values.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(SA_EXTDEBT_$,2)			
Method: Least Squares			
Date: 11/04/17 Time: 12:45			
Sample (adjusted): 1988 2016			
Included observations: 29 after adjustments			

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(SA_EXTDEBT_$(-1))	-0.896707	0.185476	-4.834616	0.0000

C	3.75E+09	1.85E+09	2.029175	0.0517
R-squared	0.446285	Mean dependent var		-64516129
Adjusted R-squared	0.427191	S.D. dependent var		1.23E+10
S.E. of regression	9.29E+09	Akaike info criterion		48.80510
Sum squared resid	2.50E+21	Schwarz criterion		48.89762
Log likelihood	-754.4791	Hannan-Quinn criter.		48.83526
F-statistic	23.37351	Durbin-Watson stat		2.049153
Prob(F-statistic)	0.000040			

Source: Researchers Computation using E-views 9.5

Appendix IX: Unit root For EXTRES

Null Hypothesis: D(SA_EXTRES_$,2) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=2)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-9.575039	0.0000
Test critical values:	1% level		-4.296729	
	5% level		-3.568379	
	10% level		-3.218382	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(SA_EXTRES_$,3)				
Method: Least Squares				
Date: 11/04/17 Time: 12:46				
Sample (adjusted): 1989 2016				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(SA_EXTRES_$(-1),2)	-1.601381	0.167245	-9.575039	0.0000
C	6.15E+08	1.00E+09	0.614287	0.5442
@TREND("1984")	-36335759	51448952	-0.706249	0.4861
R-squared	0.773513	Mean dependent var		1.19E+08
Adjusted R-squared	0.756737	S.D. dependent var		4.89E+09
S.E. of regression	2.41E+09	Akaike info criterion		46.13984
Sum squared resid	1.57E+20	Schwarz criterion		46.27996
Log likelihood	-689.0976	Hannan-Quinn criter.		46.18466
F-statistic	46.10616	Durbin-Watson stat		1.974453
Prob(F-statistic)	0.000000			

Source: Researchers Computation using E-views 9.5

Appendix X: Unit root For FDI

Null Hypothesis: D(SA_FDI_$) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 2 (Automatic - based on SIC, maxlag=2)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-6.355937	0.0001
Test critical values:	1% level		-4.309824	
	5% level		-3.574244	
	10% level		-3.221728	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(SA_FDI_$,2)				
Method: Least Squares				
Date: 11/04/17 Time: 12:47				
Sample (adjusted): 1990 2016				
Included observations: 27 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

D(SA_FDI_$(-1))	-2.817772	0.443329	-6.355937	0.0000
D(SA_FDI_$(-1),2)	1.178550	0.339229	3.474202	0.0020
D(SA_FDI_$(-2),2)	0.585143	0.189022	3.095640	0.0049
C	8.45E+08	1.11E+09	0.758749	0.4554
@TREND("1984")	-24437072	56201897	-0.434809	0.6676
R-squared	0.794492	Mean dependent var		28144878
Adjusted R-squared	0.760241	S.D. dependent var		5.14E+09
S.E. of regression	2.52E+09	Akaike info criterion		46.28609
Sum squared resid	1.52E+20	Schwarz criterion		46.52183
Log likelihood	-666.1483	Hannan-Quinn criter.		46.35992
F-statistic	23.19594	Durbin-Watson stat		1.896481
Prob(F-statistic)	0.000000			

Source: Researchers Computation using E-views 9.5

Appendix XI: Unit root For GDP

Null Hypothesis: D(SA_GDP_$,2) has a unit root			
Exogenous: Constant, Linear Trend			
Lag Length: 1 (Automatic - based on SIC, maxlag=2)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.198046	0.0012
Test critical values:	1% level	-4.309824	
	5% level	-3.574244	
	10% level	-3.221728	
*MacKinnon (1996) one-sided p-values.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(SA_GDP_$,3)			
Method: Least Squares			
Date: 11/04/17 Time: 12:48			
Sample (adjusted): 1990 2016			
Included observations: 27 after adjustments			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(SA_GDP_$(-1),2)	-1.439855	0.276999	-5.198046	0.0000
D(SA_GDP_$(-1),3)	0.347358	0.189391	1.834078	0.0786
C	3.06E+09	4.52E+09	0.677256	0.5045
@TREND("1984")	-1.49E+08	2.27E+08	-0.655358	0.5182
R-squared	0.587965	Mean dependent var		-3.62E+08
Adjusted R-squared	0.538521	S.D. dependent var		1.50E+10
S.E. of regression	1.02E+10	Akaike info criterion		49.04999
Sum squared resid	2.58E+21	Schwarz criterion		49.23858
Log likelihood	-707.2248	Hannan-Quinn criter.		49.10905
F-statistic	11.89149	Durbin-Watson stat		2.078529
Prob(F-statistic)	0.000050			

Source: Researchers Computation using E-views 9.5

Appendix XII: Unit root For TRADINT

Null Hypothesis: D(SA_TRADINT_$) has a unit root			
Exogenous: Constant, Linear Trend			
Lag Length: 1 (Automatic - based on SIC, maxlag=2)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.501314	0.0000
Test critical values:	1% level	-4.296729	
	5% level	-3.568379	
	10% level	-3.218382	
*MacKinnon (1996) one-sided p-values.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(SA_TRADINT_$,2)			

Method: Least Squares				
Date: 11/04/17 Time: 12:49				
Sample (adjusted): 1989 2016				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(SA_TRADINT_$(-1))	-1.969318	0.302911	-6.501314	0.0000
D(SA_TRADINT_$(-1),2)	0.395876	0.180822	2.189318	0.0377
C	0.013400	0.021290	0.629371	0.5346
@TREND("1984")	-0.000371	0.001088	-0.340898	0.7359
R-squared	0.751501	Mean dependent var		-1.85E-18
Adjusted R-squared	0.722828	S.D. dependent var		0.097841
S.E. of regression	0.051510	Akaike info criterion		-2.970502
Sum squared resid	0.068986	Schwarz criterion		-2.783676
Log likelihood	48.55753	Hannan-Quinn criter.		-2.910735
F-statistic	26.20943	Durbin-Watson stat		1.841306
Prob(F-statistic)	0.000000			

Source: Researchers Computation using E-views 9.5

Stability Diagnostic test

Appendix XIII: **Ramsey Reset Stability Test for (NIG)**

Ramsey RESET Test				
Equation: UNTITLED				
Specification: NIG_GDP_$ NIG_EXRATE_$ NIG_EXTDEBT_$				
NIG_EXTRES_$ NIG_FDI_$ NIG_TRADINT_$ (NIG_GDP_$(-3)) C				
Omitted Variables: Squares of fitted values				
	Value	df	Probability	
t-statistic	0.095769	22	0.9246	
F-statistic	0.009172	(1, 22)	0.9246	
Likelihood ratio	0.012504	1	0.9110	
F-test summary:				
			Mean	
	Sum of Sq.	df	Squares	
Test SSR	1.19E+19	1	1.19E+19	
Restricted SSR	2.85E+22	23	1.24E+21	
Unrestricted SSR	2.85E+22	22	1.29E+21	
LR test summary:				
	Value	df		
Restricted LogL	-767.1059	23		
Unrestricted LogL	-767.0996	22		
Unrestricted Test Equation:				
Dependent Variable: NIG_GDP_$				
Method: Least Squares				
Date: 11/05/17 Time: 09:10				
Sample: 1989 2016				
Included observations: 28				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NIG_EXRATE_$	2.93E+08	2.85E+08	1.031229	0.3136
NIG_EXTDEBT_$	2.785447	1.420545	1.960830	0.0627
NIG_EXTRES_$	1.637710	1.210198	1.353258	0.1897
NIG_FDI_$	10.15367	6.643115	1.528450	0.1407
NIG_TRADINT_$	-3.47E+10	3.06E+11	-0.113222	0.9109
NIG_GDP_$(-3)	1.030035	0.334436	3.079920	0.0055
C	-7.93E+10	7.63E+10	-1.039628	0.3098
FITTED^2	1.78E-14	1.86E-13	0.095769	0.9246
R-squared	0.990821	Mean dependent var		4.66E+11
Adjusted R-squared	0.987901	S.D. dependent var		3.27E+11

S.E. of regression	3.60E+10	Akaike info criterion	51.67331
Sum squared resid	2.85E+22	Schwarz criterion	52.04696
Log likelihood	-767.0996	Hannan-Quinn criter.	51.79284
F-statistic	339.2622	Durbin-Watson stat	1.888774
Prob(F-statistic)	0.000000		

Source: Researchers Computation using E-views 9.5

Appendix XIV: **Ramsey Reset Stability Test (South Africa)**

Ramsey RESET Test
Equation: UNTITLED
Specification: SA_GDP_$ SA_EXRATE_$ SA_EXTDEBT_$ SA_EXTRES_$
    SA_FDI_$ SA_TRADINT_$ (SA_GDP_$(-5)) C
Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	3.092990	20	0.0057
F-statistic	9.566586	(1, 20)	0.0057
Likelihood ratio	10.94555	1	0.0009

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	1.65E+21	1	1.65E+21
Restricted SSR	5.10E+21	21	2.43E+20
Unrestricted SSR	3.45E+21	20	1.72E+20

LR test summary:

	Value	df
Restricted LogL	-692.8434	21
Unrestricted LogL	-687.3706	20

Unrestricted Test Equation:
Dependent Variable: SA_GDP_$
Method: Least Squares
Date: 11/05/17   Time: 09:31
Sample: 1991 2016
Included observations: 26

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SA_EXRATE_$	-2.14E+09	3.41E+08	-6.274188	0.0000
SA_EXTDEBT_$	-0.708431	0.355296	-1.993917	0.0600
SA_EXTRES_$	4.965040	0.889856	5.579602	0.0000
SA_FDI_$	-1.670419	1.351505	-1.235969	0.2308
SA_TRADINT_$	3.66E+11	6.92E+10	5.280288	0.0000
SA_GDP_$(-5)	1.152123	0.219475	5.249450	0.0000
C	2.06E+11	6.39E+10	3.226302	0.0042
FITTED^2	-5.03E-13	1.63E-13	-3.092990	0.0057
R-squared	0.995809	Mean dependent var		4.41E+11
Adjusted R-squared	0.994342	S.D. dependent var		1.75E+11
S.E. of regression	1.31E+10	Akaike info criterion		49.66933
Sum squared resid	3.45E+21	Schwarz criterion		50.04996
Log likelihood	-687.3706	Hannan-Quinn criter.		49.78569
F-statistic	678.8316	Durbin-Watson stat		1.450145
Prob(F-statistic)	0.000000			

Source: Researchers Computation using E-views 9.5

Serial correlation test for

Appendix XV: BG Serial Correlation Test for Nigeria

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	1.085064	Prob. F(2,22)		0.3553
Obs*R-squared	2.693566	Prob. Chi-Square(2)		0.2601

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 03/02/18   Time: 16:22
Sample: 1989 2016
Included observations: 28
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXDEBT)	-1.51E-13	6.96E-12	-0.021650	0.9829
D(EXREV(-2))	2.82E-12	6.24E-12	0.452668	0.6552
FDI	-6.22E-12	1.92E-11	-0.323413	0.7494
EXRATE	0.000152	0.000805	0.189339	0.8516
D(TRADINT)	-0.270623	1.027297	-0.263432	0.7947
C	-0.000440	0.067953	-0.006477	0.9949
RESID(-1)	0.293872	0.233862	1.256604	0.2221
RESID(-2)	-0.262629	0.251931	-1.042466	0.3085

R-squared	0.089786	Mean dependent var	4.68E-16
Adjusted R-squared	-0.199828	S.D. dependent var	0.177094
S.E. of regression	0.193983	Akaike info criterion	-0.218911
Sum squared resid	0.827849	Schwarz criterion	0.154742
Log likelihood	11.28366	Hannan-Quinn criter.	-0.099376
F-statistic	0.310018	Durbin-Watson stat	1.850052
Prob(F-statistic)	0.941675		

Appendix XVI: Heteroskedasticity Test for Nigeria

Heteroskedasticity Test: ARCH				
F-statistic	2.137447	Prob. F(1,27)		0.1553
Obs*R-squared	2.127364	Prob. Chi-Square(1)		0.1447

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 03/02/18   Time: 16:48
Sample (adjusted): 1990 2016
Included observations: 27 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.022366	0.009754	2.293013	0.0299
RESID^2(-1)	0.271773	0.185891	1.462001	0.1553

R-squared	0.073357	Mean dependent var	0.030425
Adjusted R-squared	0.039037	S.D. dependent var	0.044205

S.E. of regression	0.043334	Akaike info criterion	-3.373300
Sum squared resid	0.050701	Schwarz criterion	-3.279004
Log likelihood	50.91285	Hannan-Quinn criter.	-3.343768
F-statistic	2.137447	Durbin-Watson stat	1.906797
Prob(F-statistic)	0.155284		

Source: Researchers Computation using E-views 9.5

Serial correlation test for

Appendix XVII: BG Serial Correlation Test for South Africa

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.699440	Prob. F(2,19)	0.2094
Obs*R-squared	4.097070	Prob. Chi-Square(2)	0.1289

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 03/02/18   Time: 16:41
Sample: 1990 2014
Included observations: 25
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXRATE	0.000196	0.001565	0.125062	0.9018
EXTDEBT	1.36E-13	2.00E-12	0.067754	0.9467
EXTRES(-4)	-6.57E-13	5.94E-12	-0.110612	0.9131
FDI(2)	4.13E-12	8.22E-12	0.502216	0.6213
TRADINT(1)	0.114918	0.400183	0.287163	0.7771
C	-0.059218	0.167778	-0.352957	0.7280
RESID(-1)	0.126211	0.232301	0.543310	0.5932
RESID(-2)	-0.455270	0.270893	-1.680630	0.1092

R-squared	0.151743	Mean dependent var	-1.04E-14
Adjusted R-squared	-0.160772	S.D. dependent var	0.077495
S.E. of regression	0.083492	Akaike info criterion	-1.886926
Sum squared resid	0.132449	Schwarz criterion	-1.502975
Log likelihood	33.47351	Hannan-Quinn criter.	-1.772757
F-statistic	0.485554	Durbin-Watson stat	1.937183
Prob(F-statistic)	0.833289		

Appendix XVIII: Heteroskedasticity Test for South Africa

Heteroskedasticity Test: ARCH			
F-statistic	0.039069	Prob. F(1,24)	0.8450
Obs*R-squared	0.042256	Prob. Chi-Square(1)	0.8371

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 03/02/18   Time: 16:51
Sample (adjusted): 1991 2014
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.005519	0.001579	3.494469	0.0019
RESID^2(-1)	-0.037051	0.187452	-0.197658	0.8450

R-squared	0.001625	Mean dependent var	0.005298
Adjusted R-squared	-0.039974	S.D. dependent var	0.005582
S.E. of regression	0.005692	Akaike info criterion	-7.425540
Sum squared resid	0.000778	Schwarz criterion	-7.328763
Log likelihood	98.53201	Hannan-Quinn criter.	-7.397671
F-statistic	0.039069	Durbin-Watson stat	2.045532
Prob(F-statistic)	0.844977		

Appendix XIX: **Cointegration test-Nigeria**

Date: 09/21/17   Time: 11:17
Sample (adjusted): 1988 2016
Included observations: 29 after adjustments
Trend assumption: Linear deterministic trend
Series: _NIG__GDP_$ _NIG__EXTRES_$ _NIG__EXTDEBT_$ _NIG__EXRATE_$ _NIG__FDI_$ _NIG__TRADINT_$
Lags interval (in first differences): 1 to 1
Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.875352	153.0798	95.75366	0.0000
At most 1 *	0.638015	88.52973	69.81889	0.0008
At most 2 *	0.526419	57.02901	47.85613	0.0054
At most 3 *	0.475489	33.85864	29.79707	0.0161
At most 4	0.233617	13.85466	15.49471	0.0870
At most 5 *	0.165441	5.606408	3.841466	0.0179

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.875352	64.55006	40.07757	0.0000
At most 1	0.638015	31.50072	33.87687	0.0936
At most 2	0.526419	23.17038	27.58434	0.1663
At most 3	0.475489	20.00398	21.13162	0.0713
At most 4	0.233617	8.248250	14.26460	0.3540
At most 5 *	0.165441	5.606408	3.841466	0.0179

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

_NIG__GDP_$	_NIG__EXTRES_$	_NIG__EXTDEBT_$	_NIG__EXRATE_$	_NIG__FDI_$	_NIG__TRADINT_$
-1.29E-12	-8.71E-11	-1.20E-10	0.011202	-4.25E-10	34.28427
3.51E-12	-2.20E-10	-2.17E-10	0.010405	8.64E-10	-33.24911
6.18E-12	-9.31E-11	9.72E-11	0.003069	8.21E-11	23.53387
-6.43E-12	-8.46E-11	-3.20E-11	0.026929	8.22E-10	18.53993
-4.22E-12	-8.24E-12	1.70E-10	-0.005509	6.59E-10	5.400789
-6.08E-12	1.91E-11	3.56E-12	0.039976	-3.26E-10	4.233044

Unrestricted Adjustment Coefficients (alpha):

D(_NIG__GDP_$)	-9.37E+09	-1.05E+10	2.00E+09	1.68E+10	-4.23E+09	2.93E+09
D(_NIG__EXTRES_$)	1.27E+09	2.37E+09	1.27E+09	-1.16E+08	1.33E+09	1.22E+09
D(_NIG__EXTDEBT_$)	8.89E+08	1.45E+09	-2.06E+09	1.96E+09	-1.04E+09	-5.02E+08
D(_NIG__EXRATE_$)	-4.841788	0.668274	2.263714	-4.860895	-4.472140	-0.986493
D(_NIG__FDI_$)	3.19E+08	-77447398	-3.79E+08	-3.04E+08	-69987009	2.87E+08
D(_NIG__TRADINT_$)	-0.014808	0.014829	-0.009654	-0.006411	0.008095	0.006178

1 Cointegrating Equation(s):   Log likelihood   -2975.448

Normalized cointegrating coefficients (standard error in parentheses)

_NIG__GDP_$	_NIG__EXTRES_$	_NIG__EXTDEBT_$	_NIG__EXRATE_$	_NIG__FDI_$	_NIG__TRADINT_$
1.000000	67.68172	92.92693	-8.70E+09	329.8481	-2.66E+13
	(15.9769)	(19.1968)	(2.6E+09)	(89.0604)	(3.3E+12)

Adjustment coefficients (standard error in parentheses)

D(_NIG__GDP_$)	0.012057
	(0.00811)
D(_NIG__EXTRES_$)	-0.001639
	(0.00144)
D(_NIG__EXTDEBT_$)	-0.001145
	(0.00136)
D(_NIG__EXRATE_$)	6.23E-12
	(3.3E-12)
D(_NIG__FDI_$)	-0.000410
	(0.00027)
D(_NIG__TRADINT_$)	1.91E-14
	(9.1E-15)

2 Cointegrating Equation(s):   Log likelihood   -2959.697

Normalized cointegrating coefficients (standard error in parentheses)

_NIG__GDP_$	_NIG__EXTRES_$	_NIG__EXTDEBT_$	_NIG__EXRATE_$	_NIG__FDI_$	_NIG__TRADINT_$
1.000000	0.000000	12.67104	-2.65E+09	286.3311	-1.77E+13
		(9.57993)	(1.2E+09)	(40.8644)	(2.1E+12)
0.000000	1.000000	1.185784	-89464782	0.642965	-1.32E+11
		(0.14853)	(1.9E+07)	(0.63356)	(3.2E+10)

Adjustment coefficients (standard error in parentheses)

D(_NIG__GDP_$)	-0.024691	3.121281

	(0.02211)	(1.40067)
D(_NIG__EXTRES_$)	0.006683	-0.632955
	(0.00374)	(0.23702)
D(_NIG__EXTDEBT_$)	0.003962	-0.397816
	(0.00378)	(0.23966)
D(_NIG__EXRATE_$)	8.58E-12	2.75E-10
	(9.7E-12)	(6.1E-10)
D(_NIG__FDI_$)	-0.000682	-0.010699
	(0.00078)	(0.04950)
D(_NIG__TRADINT_$)	7.11E-14	-1.98E-12
	(2.4E-14)	(1.5E-12)

3 Cointegrating Equation(s):   Log likelihood   -2948.112

Normalized cointegrating coefficients (standard error in parentheses)

_NIG__GDP_$	_NIG__EXTRES_$	_NIG__EXTDEBT_$	_NIG__EXRATE_$	_NIG__FDI_$	_NIG__TRADINT_$
1.000000	0.000000	0.000000	-3.73E+09	445.6808	-2.96E+13
			(2.0E+09)	(60.5000)	(3.1E+12)
0.000000	1.000000	0.000000	-1.91E+08	15.55525	-1.24E+12
			(9.1E+07)	(2.73947)	(1.4E+11)
0.000000	0.000000	1.000000	85766538	-12.57589	9.34E+11
			(7.4E+07)	(2.24793)	(1.2E+11)

Adjustment coefficients (standard error in parentheses)

D(_NIG__GDP_$)		
	-0.012354	2.935248	3.582388
	(0.04259)	(1.50132)	(1.56849)
D(_NIG__EXTRES_$)	0.014516	-0.751074	-0.542636
	(0.00697)	(0.24563)	(0.25662)
D(_NIG__EXTDEBT_$)	-0.008733	-0.206389	-0.621237
	(0.00662)	(0.23328)	(0.24372)
D(_NIG__EXRATE_$)	2.26E-11	6.38E-11	6.54E-10
	(1.8E-11)	(6.5E-10)	(6.8E-10)
D(_NIG__FDI_$)	-0.003021	0.024565	-0.058119
	(0.00140)	(0.04925)	(0.05145)
D(_NIG__TRADINT_$)	1.15E-14	-1.08E-12	-2.38E-12
	(4.4E-14)	(1.5E-12)	(1.6E-12)

4 Cointegrating Equation(s):   Log likelihood   -2938.110

Normalized cointegrating coefficients (standard error in parentheses)

_NIG__GDP_$	_NIG__EXTRES_$	_NIG__EXTDEBT_$	_NIG__EXRATE_$	_NIG__FDI_$	_NIG__TRADINT_$
1.000000	0.000000	0.000000	0.000000	-1190.765	5.81E+13
				(127.368)	(7.7E+12)
0.000000	1.000000	0.000000	0.000000	-68.20434	3.25E+12
				(6.86276)	(4.2E+11)
0.000000	0.000000	1.000000	0.000000	25.00294	-1.08E+12
				(2.49230)	(1.5E+11)
0.000000	0.000000	0.000000	1.000000	-4.38E-07	23466.71
				(4.6E-08)	(2792.55)

Adjustment coefficients (standard error in parentheses)

D(_NIG__GDP_$)			
	-0.120322	1.514002	3.044696	2.45E+08
	(0.04588)	(1.27293)	(1.27110)	(1.5E+08)

D(_NIG__EXTR ES_$)	0.015261	-0.741279	-0.538931	39703855	
	(0.00933)	(0.25876)	(0.25839)	(3.0E+07)	
D(NIG-EXTDEBT)$	-0.021337	-0.372300	-0.684005	71609763	
	(0.00793)	(0.22002)	(0.21970)	(2.6E+07)	
D(_NIG__EXRA TE_$)	5.38E-11	4.75E-10	8.10E-10	-0.171238	
	(2.3E-11)	(6.3E-10)	(6.3E-10)	(0.07276)	
D(_NIG__FDI_$)	-0.001069	0.050257	-0.048399	-6578214.	
	(0.00177)	(0.04904)	(0.04897)	(5690749)	
D(_NIG__TRADI NT_$)	5.27E-14	-5.34E-13	-2.17E-12	-0.000214	
	(5.7E-14)	(1.6E-12)	(1.6E-12)	(0.00018)	

5 Cointegrating Equation(s):   Log likelihood   -2933.986

Normalized cointegrating coefficients (standard error in parentheses)

_NIG__GDP_$	_NIG__EXTRES _$	_NIG__EXTDEB T_$	_NIG__EXRATE _$	_NIG__FDI_$	_NIG__TRADINT _$
1.000000	0.000000	0.000000	0.000000	0.000000	-2.52E+12
					(1.3E+12)
0.000000	1.000000	0.000000	0.000000	0.000000	-2.24E+11
					(7.4E+10)
0.000000	0.000000	1.000000	0.000000	0.000000	1.94E+11
					(3.4E+10)
0.000000	0.000000	0.000000	1.000000	0.000000	1166.556
					(539.114)
0.000000	0.000000	0.000000	0.000000	1.000000	-5.09E+10
					(4.2E+09)

Adjustment coefficients (standard error in parentheses)

D(_NIG__GDP_ $)	-0.102488	1.548872	2.326301	2.68E+08	6.122959
	(0.04918)	(1.25136)	(1.47904)	(1.5E+08)	(6.66602)
D(_NIG__EXTR ES_$)	0.009655	-0.752239	-0.313124	32380772	2.391605
	(0.00975)	(0.24797)	(0.29309)	(2.9E+07)	(1.32093)
D(_NIG__EXTD EBT_$)	-0.016964	-0.363750	-0.860152	77322342	1.638516
	(0.00835)	(0.21234)	(0.25097)	(2.5E+07)	(1.13112)
D(_NIG__EXRA TE_$)	7.27E-11	5.12E-10	5.02E-11	-0.146603	-4.12E-09
	(2.3E-11)	(5.8E-10)	(6.8E-10)	(0.06777)	(3.1E-09)
D(_NIG__FDI_$)	-0.000774	0.050834	-0.060286	-6192686.	-0.528981
	(0.00192)	(0.04891)	(0.05781)	(5760794)	(0.26053)
D(_NIG__TRADI NT_$)	1.86E-14	-6.01E-13	-7.99E-13	-0.000258	1.84E-11
	(5.9E-14)	(1.5E-12)	(1.8E-12)	(0.00018)	(8.1E-12)

Source: Researchers Computation using E-views 9.5

Appendix XX: **Cointegration test-South Africa**

Date: 09/21/17   Time: 11:38
Sample (adjusted): 1988 2016
Included observations: 29 after adjustments
Trend assumption: Linear deterministic trend
Series: _SA__GDP_$ _SA__EXTRES_$ _SA__EXTDEBT_$ _SA__EXRATE_$ _SA__FDI_$ _SA__TRADINT_$
Lags interval (in first differences): 1 to 1
Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**

	Eigenvalue	Statistic	Critical Value	Prob.**		
None	0.620629	92.22734	95.75366	0.0853		
At most 1	0.555285	62.18090	69.81889	0.1746		
At most 2	0.402992	37.06095	47.85613	0.3447		
At most 3	0.340600	21.07038	29.79707	0.3533		
At most 4	0.186677	8.161199	15.49471	0.4483		
At most 5	0.055063	1.755753	3.841466	0.1852		

Trace test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.620629	30.04644	40.07757	0.4208
At most 1	0.555285	25.11995	33.87687	0.3769
At most 2	0.402992	15.99057	27.58434	0.6666
At most 3	0.340600	12.90918	21.13162	0.4606
At most 4	0.186677	6.405446	14.26460	0.5618
At most 5	0.055063	1.755753	3.841466	0.1852

Max-eigenvalue test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

_SA__GDP_$	_SA__EXTRES_$	_SA__EXTDEBT_$	_SA__EXRATE_$	_SA__FDI_$	_SA__TRADINT_$
-1.45E-11	-8.58E-12	5.22E-11	-0.097834	-7.31E-10	11.36239
-3.85E-12	4.64E-11	3.23E-11	0.081771	5.01E-10	-46.51452
-3.91E-11	2.62E-11	7.90E-11	-0.141709	1.61E-10	21.61964
-1.57E-11	-2.93E-11	7.63E-11	0.095348	3.65E-10	-1.712290
-2.72E-11	3.64E-10	-5.21E-11	-0.036736	3.79E-11	-10.37995
-1.51E-11	-1.19E-10	5.69E-11	0.061959	6.98E-10	-2.959537

Unrestricted Adjustment Coefficients (alpha):

D(_SA__GDP_$)	1.08E+09	3.09E+09	-5.73E+08	-8.27E+08	-1.13E+09	-1.06E+09
D(_SA__EXTRES_$)	-6.03E+08	-5.26E+08	-3.24E+08	-8.83E+08	-2.97E+08	-30334460
D(_SA__EXTDEBT_$)	-3.81E+09	-1.13E+09	-7.87E+08	-6.75E+08	6.19E+08	-1.39E+09
D(_SA__EXRATE_$)	-1.452849	0.216294	2.172422	-3.020374	1.141981	0.170570
D(_SA__FDI_$)	1.43E+09	-6.47E+08	-8.88E+08	-2.09E+08	2.35E+08	45783935
D(_SA__TRADINT_$)	0.002352	0.022955	-0.010250	-0.014382	-2.21E-05	0.003491

1 Cointegrating Equation(s): Log likelihood -2938.015

Normalized cointegrating coefficients (standard error in parentheses)

_SA__GDP_$	SA_EXTRES$	SA__EXTDEBT$	_SA__EXRATE_$	_SA__FDI_$	_SA__TRADINT_$
1.000000	0.590432	-3.593412	6.74E+09	50.34726	-7.82E+11
	(3.96885)	(1.35723)	(2.3E+09)	(13.0834)	(5.9E+11)

Adjustment coefficients (standard error in parentheses)

D(_SA__GDP_$)	-0.015687
	(0.02099)
D(_SA__EXTRES_$)	0.008766
	(0.00587)
D(_SA__EXTDEBT_$)	0.055335
	(0.02162)
D(_SA__EXRATE_$)	2.11E-11
	(2.1E-11)
D(_SA__FDI_$)	-0.020783
	(0.00637)
D(_SA__TRADINT_$)	-3.42E-14
	(1.4E-13)

2 Cointegrating Equation(s): Log likelihood -2925.455

Normalized cointegrating coefficients (standard error in parentheses)

	_SA__GDP_$	SA_EXTRES$	SA_EXTDEBT$	_SA__EXRATE_$	_SA__FDI_$	_SA__TRADINT_$
	1.000000	0.000000	-3.816659	5.43E+09	41.91561	-1.82E+11
			(0.57836)	(2.2E+09)	(12.4382)	(5.4E+11)
	0.000000	1.000000	0.378109	2.21E+09	14.28049	-1.02E+12
			(0.20809)	(8.0E+08)	(4.47512)	(2.0E+11)

Adjustment coefficients (standard error in parentheses)

D(_SA__GDP_$)	-0.027603	0.134223	
	(0.01943)	(0.06103)	
D(_SA__EXTRES_$)	0.010793	-0.019240	
	(0.00585)	(0.01837)	
D(_SA__EXTDEBT_$)	0.059679	-0.019637	
	(0.02209)	(0.06938)	
D(_SA__EXRATE_$)	2.03E-11	2.25E-11	
	(2.2E-11)	(6.8E-11)	
D(_SA__FDI_$)	-0.018288	-0.042318	
	(0.00627)	(0.01969)	
D(_SA__TRADINT_$)	-1.23E-13	1.05E-12	
	(1.2E-13)	(3.8E-13)	

3 Cointegrating Equation(s):   Log likelihood   -2917.460

Normalized cointegrating coefficients (standard error in parentheses)

_SA__GDP_$	_SA__EXTRES_$	_SA__EXTDEBT_$	_SA__EXRATE_$	_SA__FDI_$	_SA__TRADINT_$
1.000000	0.000000	0.000000	4.84E+09	-26.04507	-2.15E+12
			(2.9E+09)	(18.2065)	(6.1E+11)
0.000000	1.000000	0.000000	2.27E+09	21.01322	-8.23E+11
			(7.6E+08)	(4.76215)	(1.6E+11)
0.000000	0.000000	1.000000	-1.55E+08	-17.80633	-5.15E+11
			(1.1E+09)	(7.16299)	(2.4E+11)

Adjustment coefficients (standard error in parentheses)

D(_SA__GDP_$)	-0.005206	0.119206	0.110809
	(0.05388)	(0.06950)	(0.12878)
D(_SA__EXTRES_$)	0.023457	-0.027731	-0.074079
	(0.01604)	(0.02069)	(0.03834)
D(_SA__EXTDEBT_$)	0.090411	-0.040242	-0.297348
	(0.06113)	(0.07884)	(0.14610)
D(_SA__EXRATE_$)	-6.46E-11	7.94E-11	1.03E-10
	(5.7E-11)	(7.3E-11)	(1.4E-10)
D(_SA__FDI_$)	0.016390	-0.065568	-0.016331
	(0.01565)	(0.02018)	(0.03740)
D(_SA__TRADINT_$)	2.78E-13	7.77E-13	5.38E-14
	(3.3E-13)	(4.2E-13)	(7.8E-13)

4 Cointegrating Equation(s):   Log likelihood   -2911.005

Normalized cointegrating coefficients (standard error in parentheses)

_SA__GDP_$	_SA__EXTRES_$	_SA__EXTDEBT_$	_SA__EXRATE_$	_SA__FDI_$	_SA__TRADINT_$
1.000000	0.000000	0.000000	0.000000	-63.40925	-1.75E+12
				(12.1658)	(6.2E+11)
0.000000	1.000000	0.000000	0.000000	3.474636	-6.38E+11
				(2.17628)	(1.1E+11)
0.000000	0.000000	1.000000	0.000000	-16.61222	-5.27E+11
				(3.43137)	(1.8E+11)

0.000000	0.000000	0.000000	1.000000	7.72E-09	-81.40905
				(1.0E-09)	(51.1654)

Adjustment coefficients (standard error in parentheses)

D(_SA__GDP_$)	0.007803	0.143455	0.047739	1.50E+08	
	(0.05705)	(0.07838)	(0.16050)	(2.7E+08)	
D(_SA__EXTRES _$)	0.037355	-0.001827	-0.141456	-22258531	
	(0.01503)	(0.02065)	(0.04228)	(7.2E+07)	
D(_SA__EXTDEB T_$)	0.101026	-0.020456	-0.348811	3.28E+08	
	(0.06500)	(0.08931)	(0.18288)	(3.1E+08)	
D(_SA__EXRATE _$)	-1.71E-11	1.68E-10	-1.28E-10	-0.436012	
	(5.4E-11)	(7.4E-11)	(1.5E-10)	(0.25722)	
D(_SA__FDI_$)	0.019671	-0.059451	-0.032241	-86980784	
	(0.01660)	(0.02281)	(0.04671)	(7.9E+07)	
D(_SA__TRADIN T_$)	5.04E-13	1.20E-12	-1.04E-12	0.001728	
	(3.2E-13)	(4.4E-13)	(9.1E-13)	(0.00154)	

5 Cointegrating Equation(s):   Log likelihood   -2907.803

Normalized cointegrating coefficients (standard error in parentheses)

_SA__GDP_$	_SA__EXTRES_$	_SA__EXTDEBT_$	_SA__EXRATE_$	_SA__FDI_$	_SA__TRADINT_$
1.000000	0.000000	0.000000	0.000000	0.000000	-4.33E+12
					(6.7E+11)
0.000000	1.000000	0.000000	0.000000	0.000000	-4.97E+11
					(6.4E+10)
0.000000	0.000000	1.000000	0.000000	0.000000	-1.20E+12
					(1.7E+11)
0.000000	0.000000	0.000000	1.000000	0.000000	232.5814
					(81.7473)
0.000000	0.000000	0.000000	0.000000	1.000000	-4.07E+10
					(9.2E+09)

Adjustment coefficients (standard error in parentheses)

D(_SA__GDP_$)	0.038584	-0.268368	0.106636	1.91E+08	0.322816
	(0.06565)	(0.46347)	(0.17074)	(2.7E+08)	(1.22016)
D(_SA__EXTRES _$)	0.045438	-0.109967	-0.125990	-11357177	-0.208217
	(0.01730)	(0.12211)	(0.04499)	(7.1E+07)	(0.32149)
D(_SA__EXTDEB T_$)	0.084173	0.205022	-0.381058	3.05E+08	1.871493
	(0.07582)	(0.53523)	(0.19718)	(3.1E+08)	(1.40908)
D(_SA__EXRATE _$)	-4.82E-11	5.84E-10	-1.87E-10	-0.477965	4.62E-10
	(6.2E-11)	(4.4E-10)	(1.6E-10)	(0.25588)	(1.2E-09)
D(_SA__FDI_$)	0.013283	0.026023	-0.044465	-95597238	-1.581113
	(0.01927)	(0.13605)	(0.05012)	(8.0E+07)	(0.35817)
D(_SA__TRADIN T_$)	5.04E-13	1.19E-12	-1.04E-12	0.001729	2.88E-12
	(3.8E-13)	(2.7E-12)	(9.8E-13)	(0.00156)	(7.0E-12)

Source: Researchers Computation using E-views 9.5