FEDERAL UNIVERSITY OYE-EKITI

DEPARTMENT OF ECONOMICS AND DEVELOPMENT STUDIES

PROJECT ON THE IMPACT OF FOREIGN TRADE ON ECONOMIC GROWTH OF NIGERIA (1980-2014)

BY

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A PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS AND DEVELOPMENT STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELORS OF SCIENCE (B.SC) IN ECONOMICS AND DEVELOPMENT STUDIES

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CERTIFICATION

This is to certify that this research project titled the impact of foreign trade on economic growth of Nigeria (1980-2014) was carried out by Ikeji Ugochi Elizabeth, with the matric no EDS/11/0172 in the department of Economics and Development studies, faculty of social science, Federal university Oye-Ekiti, Ekiti state, under the supervision of Dr. D. Amassoma have fully supervised and found worthy of acceptance in partial fulfillment of the award of bachelor of science, (B.SC) Degree in Economics and Development studies at federal university Oye-Ekiti, Ekiti state.

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DEDICATION

I fully dedicate this project to almighty God for his divine protection, he is worthy of honour and praises. I also dedicate this project to my late mum Mrs. Anna Ikeji whose memories shall never depart from my heart.

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ABSTRACT

The study examined empirically the impact of foreign trade on economic growth of Nigeria. Annual data on Real Gross Domestic Product, Exchange rate, Inflation, Trade openness, Foreign Direct Investment, Net export from the Central Bank of Nigeria covering the period of 1980-2014 were utilized with the broad objective of examining the impact of foreign trade on economic growth of Nigeria within the study period. The ordinary least square (OLS) estimation procedure and descriptive statistics were adopted. From the descriptive statistics conducted, the result shows that the variables under consideration i.e. RGDP, NETEXP, OPENESS, EXCR, FDI and INFLATION all have a positive mean value. The study went further to conduct the OLS estimate which indicates that there is a positive relationship between RGDP and the coefficient of the variables, i.e. OPENESS, EXCR and FDI. Furthermore, the granger causality test conducted shows that there is a unidirectional causality between RGDP and NETEXP, which means that NETEXP granger causes RGDP without a reversal effect. Therefore, the study recommends that Excise duties should be reduced so as to encourage local industries to export their goods and services. Furthermore, Nigeria should reframe from excessive consumption of foreign goods and services so that their import might be cut-off. Finally, there is need for Nigeria to lessen export-import dependence through the diversification of domestic production.

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CHAPTER ONE

1.0 Introduction

1.1 Background to the Study

Foreign trade plays a very necessary role in restructuring of economic and social parts of the countries round the world, significantly the less developed countries; it has been a vicinity of interest to decision makers as well as economists (Adewuyi, 2002). In most countries, it represents the numerous part of gross domestic product (GDP). There has been the exchange of products and services across international borders for hundreds of years owing to its economic, social and political importance, foreign trade was necessary in its early starting, this is not because it provided one society with product like cowries from one continent to different areas; it conjointly created the supply for cultural trade off, therefore trading not solely on product, but conjointly on lifestyles, customs and technology. It assisted in increasing the quality of living of states and also, the national income. Foreign trade is the exchange of products and services across international borders or between nations of the globe. The analysis of an economy in terms of growth rate and per capita income has been supported by the domestic production, consumption activities and in conjunction with foreign operation of products and services. It permits nations to sell their domestically made products to different countries of the globe.

Foreign trade is achieved once it facilitates the national and international quality of factors of production, the exchange of ideas and improved technology that result in international allocation and distribution of resources; it results in steady improvement in human standard by increasing the range of people's standard of living and preference. Foreign trade plays an important role in reforming economic and social attributes of nations round the world, particularly; the less developed countries because no country is self-sufficing to trade alone.

Before the invention of oil in the 1960s, the Nigerian government was able to perform investment project through domestic savings, earning from agricultural product exports and foreign aids. Since the invention of crude oil in 1956 and its exploration in commercial quantity in 1958 however, the oil sector bit by bit became transition in 2011, which highlighted a gradual shift away from primary production to secondary and tertiary activities. Primary production activities, comprising agriculture, crude petroleum natural gas, and solid minerals dominated economic activities in 2011 with a share of 55.30% of GDP, compared with 57.09% in 2010. In contrast, secondary production activities of producing, building and construction which have a bigger potential to expand the country's productive base recorded a share of 6.25% of real GDP in 2011. The tertiary sectors have shown an upward trend within the last 5 years, accounting for about 39% of the GDP throughout 2011 compared with about 37% in 2010. The development of secondary and tertiary sectors showed a gradual enlargement of the productive base, leading to reduction in the dominance of primary activities within the economy. Within the merchandise trade, crude oil export continued to dominate total exports, accounting for 92% by the end of 2011 as against 93% in 2010. Equally, crude oil exports amounted to US$79.81billion compared to US$63.73 billion during the period. It was equally noted that the United States of America was the dominant destination of Nigeria's exports, accounting for 53% of total exports, whereas Europe and Asia accounted for 23% and 12%, respectively during the period (Annual Performance Report of the Nigerian Economy by NPC 2011). Although foreign trade is not perfect in promoting economic growth because the Nigeria economy still experience some component of economic instability and this trade has also turned the country into an import dependent economy. However, the contribution of foreign trade to growth depends greatly on the context in which it works and therefore the objective it serves to a country.

Foreign trade has a shortcoming to economic growth because some of the products imported into the country were those who caused harm to local industries by making their

product inferior and being neglected by the consumers of such goods or services, this thereby reduced the growth rate of output of such industries. Nigeria's major source of income is through the export of oil and thereby neglecting other sources of revenue like the agricultural sector.

1.2 Statement of the Problem

Promotion of economic growth is one of the objectives of foreign trade, however in recent times, this has not been the case because the Nigerian economy still experiences some elements of economic instability such as price instability and adverse balances of payment to mention a few.

One of the reasons why benefits of foreign trade cannot be transformed into economic growth is the macroeconomic policy distortions resulting from the trade which turned the country into an import dependent economy. The import of the country grew from N0.7 billion in 1970 to over N562 billion in 1996 and later increase to N1, 266 billion in 2001, (CBN Annual Report, 2004). Nigeria has grown rapidly in recent times due to the significance of foreign trade, mainly since 2002. Economic openness, measure as the ratio of export and imports to GDP has grown from 3 % in 1991 to over 11 % in 2008. The balance within the growth rate of trade in 2008 partly reflects the unrest in Nigeria's oil manufacturing Niger Delta region, which resulted in significant disruption in oil production and shortfalls in oil export from Nigeria.

Furthermore, foreign trade has not improved into economic growth because some of the goods imported into the country were those that cause damages to local industries by rendering their product inferior and being neglected, which in turn reduces the expansion rate of output of such industries and this later spread to the aggregate economy.

For this reason, it is worthy of note to investigate the influence of foreign trade on economic growth in Nigeria.

1.3 Objectives of the Study

The broad objective of this study is to examine the impact of foreign trade on economic growth in Nigeria. Specifically, the research work will focus on the following objectives:

i. To examine the impact of import and export on economic growth of Nigeria.
ii. To determine the direction of causality between foreign trade variables and economic growth in Nigeria.
iii. To proffer policy measures that would enhance growth of the Nigeria economy

1.4 Statement of the Research Hypotheses

Ho: Foreign trade does not have significant impact on economic growth in Nigeria

H_1: Foreign trade has significant impact on economic growth in Nigeria

Ho: Export and import does not have any significant impact on economic growth in Nigeria

H1: Export and import have significant impact on economic growth in Nigeria.

H0: There is no direction of causality between foreign trade variables and economic growth in Nigeria

H1: There is a direction of causality between foreign trade variables and economic growth in Nigeria

1.5 Scope of the Study

This study will focus on secondary data for the study of which the source are Central Bank of Nigeria (CBN) statistical bulletin 1980 to 2014 version.

This project centers on the impact of foreign trade on the economic growth of Nigeria from 1980 to 2014. In the course of this study, the researcher will examine the impact and influence of foreign trade on economic growth of Nigeria.

1.6 Organization of the Study

The research work is divided into five chapters. Chapter one is the introduction. Chapter two focused on the literature review and theoretical framework on the role of foreign trade and Nigerian economic growth. Chapter three focused on research methodology to be adopted in the study. Chapter four dealt with the data presentation, analysis and interpretation, while chapter five dealt with the summaries of findings, conclusion and recommendations of the research work.

1.7 Justification of the Study

This study will be vital and will serve as an essential reference material to policy makers in order to know more about the act of foreign trade in relation to economic growth. It will offer a framework on where work has been carried out by past researchers. Also, it will serve as a source of relevant information and other valuable materials for further research to be carried out on foreign trade and economic growth.

1.8 Definition of Terms

1.8.1 Balance of payment (BOP): This is the accounts of all records or trades between a country and other countries of the world. These transactions comprise payments for the country's export and import of goods and services, financial capital and financial transfer. (Sloman, John 2004.)

1.8.2 Balance of payment deficit: This is a condition whereby the import of goods, services, investment income and transfers surpasses the export of goods, services, investment income and transfers. (Sloman, John, 2004)

1.8.3 Economic Growth: It is the stable development by which the productive capabilities of an economy are improved over time to ensure a rising level of national output. It is the increase in the market value of goods and services produced by the economy over time. (Todaro& Smith, 2009)

1.8.4 Export: This can be referred to as the function of international trade whereby goods produced in one country is being transported to another country for future sales or trade. (Todaro& Smith, 2009)

1.8.5 Import: These are the goods bought from another jurisdiction particularly across a national border from external source. (Todaro & Smith, 2009)

1.8.6 Industrialization: It is the means of transforming an economy into a socio-economic order in which industry is prevailing. It is the process of building up capacity to process raw materials for consumption or further production. (Todaro& Smith 2009)

1.8.7 Tariff: It is the amount of tax imposed by a government on the value of an imported product and it is used to run the government or country.(Todaro& Smith 2009)

1.8.8 Fiscal year: This is a twelve month period at the end of which all accounts are complete in order to provide a statement of a company, organization or government financial condition and for tax **purposes**. (Financial Dictionary)

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

The broad objective of this study is to investigate the impact of foreign trade on economic growth of Nigeria. This section therefore reviews relevant literatures so as to provide the study with a strong and reliable theoretical background. As stated in the preceding chapter, foreign trade plays a very important role in restructuring of economic and social attributes of the countries around the world, particularly the less developed countries. It has been an area of interest to decision makers as well as economists (Adewuyi, 2002).

2.1 Conceptual issues / Theoretical review

The literature on foreign trade recommends that exports have a positive influence on economic growth (Salvatore 2010). According to Uche (2009), the significance of exports in enhancing economic growth and prosperity is captured within the theoretical justification for international trade. In the mercantilist economic thought, for example; foreign trade is understood as an indispensable engine of economic growth and prosperity (Roll, 1953; and Bhatia, 1978). Indeed, foreign trade under mercantilism is well-thought-out to be profitable only when there is positive balance of trade thus indicating that exports are the most essential aspect of international trade. But as pointed out by Ozughalu and Ajayi (2004), if every country ensures that it gets a surplus in international trade, hence there will be high level of protectionism and many barriers to the flow of foreign trade and these are incompatible with the essence of globalization. A highly vigorous theoretical groundwork for international trade lies in the classical economic theory of comparative cost advantage. The theory of comparative cost advantage suggests that global production will reach its optimal level if every country specializes in the production of the commodity (or commodities) where it has comparative cost advantage

over others. This is seen as the basis for profitable trade (Ozughalu and Ajayi, 2004). In contemporary economics, the overriding model of comparative cost advantage is recognized as Heckscher-Ohlin model. As opined out by Sodersten and Reed (1994), it is a theory of long term overall equilibrium in which two factors of production, labour and capital are both movable between sectors.

Lec (1995) emphasized that the comprehensive and historical validation has proved that foreign trade affects economic growth positively by encouraging capital accumulation, industrialization, technological progress and institutional development. Specifically, increased in imports of capital and intermediate products which are not existing in the domestic market may encourage the productivity of the manufacturing sector. Krugman and Obstfeld (2009) orated that foreign trade permits countries to focus in producing narrower ranges of goods, giving them greater outputs of large scale-production. It is also a branch of economics that is concerned with the interchange of goods and services with foreign countries, (Rugman and Collingson, 2006). Also, Salvatore (2010) defined foreign trade as dealing with economic and financial interdependence among nations. He examined the flow of goods, services, payments and monies between a nation and countries of the world, the policies focused at regulating these flows and their effects on the nation's welfare. According to Ayodele and Falokun (2005), foreign trade empowers a nation to sell its locally made goods to other countries of the world. In addition, Adefila (2003) defined foreign trade as all economic doings involving trading between merchants across international borders.

Therefore, foreign trade transpires when goods and services cross international boundaries in exchange for money or the goods and services of another nation. Balaam and Dillman (2011) said, though most of the goods and services produced locally are consumed in confined markets, foreign trade has grown intensely as a reflection of increase in demand for goods and services that do not exist or cannot be produced locally.

Economic growth on the other hand, refers to the increase over time of an economy's capability to produce those goods and services needed to develop the well-being of all citizens. Todaro (1977) maintains that growth is the steady process by which the productive capability of the economy is increased overtime to bring about rising levels of national income and output. Economic growth ascends not only from the growth in quantity and quality of resources, capital accumulation, growth in productive population; and improved technology, but also from a social and political structure that is beneficial to such change. According to Black (2009), growth is an increase in an economic variable, normally persisting over a successful periods. It is an outward shift of a country's production possibility frontier (Krugman and Obstfeld, 2009). Also, Sullivan and Sheffrin, (2001) defined economic growth as the increase in a nation's standard of living or level of economic prosperity. In addition, economic growth also refers to an increase in a country's production of income per capita.

It is very important to know the nature of the trade and the type of commodities that are traded; this is because Todaro and Smith (2009) emphasized that most African countries engage in the exportation of primary products and not manufacturing exports. The need to expand the export of their economies is important because not all countries desire a particular product and also if such country needs to grow, it must not specialize in one line of production. It is detected that the prices of the primary products are cheaper when compared with that of the manufacturing products.

Shuchin (1979) also outlined that exports are the major active factors in determining the level of general economic activity in most primary exporting countries. Winters et al (2004) maintained that one of the significances of international trade is that it exposes the participating countries to foreign shocks, but the intensity or otherwise of these shocks depends on the nature of existing institutions, policy measures and the capacity of the country to absorb or counter the shocks. Studies conducted by Edwards (1993), Frankel and Romer (1999), Dollar and Kraay (2001; 2002) placed emphasis on the positive effect of trade liberalization on the economic growth and poverty reduction. Dollar and Kraay (2001; 2002) studies supported the view that trade openness has positive effect on

economic growth and development by submitting that foreign trade increases the domestic income of partaking countries. This is simply because opening the economy to international commerce allows local entrepreneurs to learn new methods of using or producing quality inputs quicker at lower cost, increasing total factor productivity, human capital accumulation and in harnessing overall national technological capacity. This argument is consistent with the findings of Romer (1992); Barro and Sala-i-Martin (1995); Obstfeld and Rogolt (1996).

The significance of foreign trade to a nation's economic welfare and sustainable development has been very much recognized in the economics literature Morgan and Katsikeas (1997). Trade is based on the fact that no country can produce all goods and services which people require for their consumption largely owing to resources differences and constraints Mannur (1995). As a result, this trade relationship suggests that economies need to export goods and services in order to generate revenue to finance imported goods and services, which cannot be produced domestically (Coutts and Godley, 1992; McCombie and Thirlwall, 1992; cited in Morgan and Katsikeas, 1997). Also, there is need to improve the living standard of the citizenry, reduce unemployment, increase capacity utilization which leads to an increase in productivity, as well as an increase in foreign exchange earnings etc. This will lead to the introduction of vibrant economic policies in Nigeria and other developing nations of the world. According to Azam (2009), the drift from trade restricted economy to trade liberalization is attributed to positive relationship that exists between foreign trade and economic growth. Bhagwati (1973) noted that for efficient utilization of available scarce resources and for expanding global trade volume, foreign trade in goods and services is highly beneficial. Economists often assert that trade liberalization improves social welfare and alleviates poverty, because it generate jobs opportunities, fosters economic growth and improves consumer choice and living standard of the societies. Reacting to this, Black (2005) noted that exports of goods and services represent one of the most important sources of foreign exchange income that ease the pressure on the balance of payments and create

employment opportunities, increase productivity and enhance the living standard of the citizenry. Exporting is associated with static gains that include efficiency advances as a result of knowledge and technological spillovers from exporting experience. Exporting is also associated with efficiency in resource allocation, employment generation, and relaxing the foreign exchange constraints (Sullivan and Sheffrin, 2011)

2.2 Theories of trade

2.2.1 Mercantilist Trade Theory

Mercantilist provided the earlier idea on foreign trade. The doctrine was made up of many features. It was highly nationalistic and considered the welfare of the nation as of prime importance. According to the theory, the most important way for a nation to become rich and powerful is to export more than its import. Some of the mercantilism are Jean Baptiste Colbert and Thomas Hobbes. It was understood then, that, the most important way in which a country could be rich was by acquiring precious metals such as gold. This was achieved by ensuring that the volume of export was better than the volume of import.

Trade has to be controlled, regulated and restricted. The country was expected to achieve favorable balance of payment. Tariffs, quotas and other commercial policies were proposed by the mercantilism to minimize imports in order to protect a nation's trade position. Mercantilism did not favor free trade. Mercantilism believed in a world of conflict in which the state of nature was a state of war. The need for regulation to maintain order in human affairs and economic affairs were taken for granted. To the mercantilist, the world wealth was fixed. A nation's gain from trade was at the expense of its trading partners, that is, not all nationals could simultaneously benefit from trade.

Towards the end of 18th century, the economic policies of mercantilism came under strong attack. David Hume criticized the favorable trade balance as being short run

phenomenon which could be eliminated automatically over time. The other nation is likely to retaliate. Mercantilism was also attacked for their static view of the world economy. Adam Smith also criticized the nation that the world's wealth is fixed with the advantages of specialization and division of labor. With specialization and division of labor, the general level of productivity within a country will increase.

Despite the criticism faced by the foundation of mercantilism, mercantilism is still alive today. New mercantilism now emphasized employment rather than holding some gold. They also postulate that exports are beneficial as job is provided domestically. Imports are considered bad as jobs are taken away and transferred to the foreign workers. To the new mercantilist, trade is a zero sum activity which a country must loose for the other to gain. And that there is no acknowledgment that trade can provide benefits to all countries

2.2.2 Comparative Advantage Trade Theory

Absolute advantage failed to analyze where a country has comparative advantage in the production of two goods. Will trade still be necessary or beneficial to the country in question? David Ricardo tackled this question.

Ricardo was the first to demonstrate that external trade arises not from difference in absolute advantage but from difference in comparative advantage. By "comparative advantage" it is meant "greater advantage". Thus in the context of two countries and two commodities, trade would still take place even if one country was more efficient in the production of both commodities, provided the degree of its superiority over the other country was not identical for both commodities.

Ricardo assumed the existence of two countries, two commodities, and one factor of production, labor. He assumed that labor was fully employed and internationally immobile and that the product and factor of prices were perfectly competitive. There are no transport costs or any other impediments to trade.

In context of a model of two countries, two commodities and one factor of production, Ricardo obtained the result that a country will tend to export the commodity in which it

has a comparative disadvantage. Since comparative costs are the other side of comparative advantage, the theory could be expressed in terms of comparative costs. Specifically, the theory now states that a country will tend to export the commodity whose comparative cost is lower in production and comparative cost is higher in pre-trade isolation.

The theory also assumed the level of technology to be fixed for both nations. Different nations may use different technology but all firms within each nation utilize a common production method for each commodity. It also assumed that trade is balanced and rolls out the flow of money between nations. The distribution of income within a nation is not affected by trade.

Most assumption of the Ricardian theory is unrealistic. The theory is based on labor theory of values which states that the price of the values of a commodity is equal to or can be inferred by the quality of labor time going into its production process. Labor theory of values is based on labor as the only factor of production. Labor is used in the same fixed proportion in the production of all commodities. Labor is homogenous. This underline proposition is quite unrealistic, because as labor is categorized into skilled, semi-skilled and unskilled labor, there are other factors of production.

Despite its shortcomings, the law of comparative advantage cannot be discarded off because it found application in study of economics. The law is valid and can be explained in terms of opportunity cost in the modern theory of trade.

2.2.3 Absolute cost Advantage Trade Theory

This theory was propounded by Adam Smith in his famous book "Wealth of Nation" (1776). The theory of absolute cost advantage emerges as a result of the criticism levied against mercantilism. He advocated free trade as the best policy for the nations of the world. Adam Smith argued that with free trade each nation could specialize in the production of those commodities in which it could produce more efficiency than the other nations, and import those commodities in which it could produce less efficiently.

This international specialization of factors in production would result in increase in world output, which would be shared by the trading nations. Thus, a nation need not gain at the expense of other nations, all nations could gain simultaneously.

In other words, according to the theory, a nation should specialize in the production of export of commodities in which it has lower cost or absolute cost advantages over others. On the other hand, the same country should import a commodity in which it has higher cost or absolute cost disadvantage.

2.3 Theories of Economic Growth

Economic growth means the steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income. Economic growth could be said to comprise three components – capital accumulation, growth in population and eventual growth in the labour force, and technological progress. Capital accumulation results when some proposition of personal income is saved and invested in order to augment future output and income. Capital accumulation involves a trade-off between present and future consumption, giving up a little now so that more can be had latter.

Population growth and the associated increase in the labour force have traditionally been considered a positive factor in stimulating economic growth. A larger labour force means more productive workers, and a large overall population increases the potential size of domestic markets. Technological progress results from new and improved ways of accomplishing traditional tasks. Technological progress could be neutral, labour-saving, and capital-saving.

Neutral technological progress occurs when higher output levels are achieved with the same quantity and combinations of factor inputs. Computers, the internet, tractors, mechanical ploughs and many other kinds of modern machinery and equipment can be classified as products of labour-saving technological progress.

2.3.1 Endogenous Growth Theory

Endogenous growth economists believed that improvements in productivity can be linked directly to a faster pace of innovation and extra investment in human capital. They stress the need for government and private sector institutions which successfully nurture innovation, and provide the right incentives for individuals and businesses to be inventive. There is also a central role for the accumulation of knowledge as a determinant of growth. Supporters of endogenous growth theory believed that there are positive externalities to be exploited from the development of a high value-added knowledge economy which is able to develop and maintain a competitive advantage in fast-growth industries within the global economy.

The main points of the endogenous growth theory are as follows:

The rate of technological progress should not be taken as a constant in growth. Model-government policies can permanently raise a country's growth rate if they lead to more intense competition in markets and help to stimulate product and process innovation. There are increase returns to scale from new capital investment. The assumption of the law of diminishing returns is questionable. Endogenous growth theorists are strong believers in the potential for economies of scale (or increasing returns to scale) to be experienced in nearly every industry and market. Private sector investment in research and development is a key source of technical progress.

The protection of private property rights and patents is essential in providing appropriate and effective incentives for businesses and entrepreneurs to engage in research and development. Investment in human capital (including the quantity and quality of education and training made available to the workforce) is an essential ingredient of long-term growth. Government policy should encourage entrepreneurship as a means of creating new businesses and ultimately as an important source of new jobs, investment and innovation.

2.3.2Neo-Classical Growth Theory

This was first propounded by Robert Solow over 40 years ago. The model believes that a sustained increase in capital investments increased the growth rate only temporarily, because the ratio of capital to labour goes up. The marginal product of additional units is assumed to decline and thus an economy eventually moves back to a long term growth-path with the real GDP growing at the same rate as the growth of the workforce plus factor to reflect improving productivity. Neo-classical economists who subscribe to the Solow model believes that to raise an economy long term trend rate of growth requires an increase in labour supply and also a higher level of productivity of labour and capital.

Differences in the rate of technological change between countries are said to explain much of the variation in growth rates. The neo-classical models treat productivity improvements as an exogenous variable which means that productivity improvements are assumed to be independent of the amount of capital investment.

2.3.3Harrod – Domar Growth Model

Harrod-Domar orated that economic growth can be achieved when more investment leads to more growth. This theory focused on the linear production function in which the output is given by capital stock (K) multiplied by a constant.

According to this theory, investment generates income and also increases the productive capacity of the economy by increasing the capital stock. Inasmuch as there is net investment, real income and output continue to expend. And, for full employment equilibrium level of income and output to be maintained, both real income and output should expand at the same rate with the productive capacity of the capital stock.

The theory maintained that for the economy to maintain a full employment, in the long run, net investment must increase continuously as well as growth in the real income at a rate sufficient enough to maintain full capacity use of a growing stock of capital. This implies that a net addition to the capital stock in the form of new investment will go a long way to increase the flow of national income. From the theory, the national savings ratio is assumed to be fixed proportions of national output and that total investment is

determined by the level of total savings i.e. $S = SY$ which must be equal to net investment I.

The net investment which is $I = \Delta K = K\Delta Y$ because K has a direct relationship to total national income. And, therefore $SY = K\Delta Y$ which simply means $\Delta Y/Y$ is growth rate of GDP that is determined by the net national savings ratio, s and the national capital output, K in the absence of government, the growth rate of national income will be positively related to the saving ratio i.e. the more an economy is able to save and invest out of a given GDP, the greater the growth of GDP and which will be inversely related to capital output ratio.

2.4 Benefits of Foreign Trade

There are several economic benefits of trade that could accrue from foreign trade. Comparative cost theory has shown clearly that the greatest possible advantage from trade for all countries would be obtained if each nation devotes itself to what it can produce cheaply.

This brings about efficient allocation of resources because each country specializes in producing the commodities in which she has comparative advantage over others. In relations to this theory through foreign trade, countries direct their factors of production to areas where they can produce more.

Though with foreign trade, total world output of commodities seems to increase. This increase in the world output, also increase the variety of goods available to consumers. And consumers have the chances of exercising their preference. Consequently standard of living would also increase.

Foreign trade also increases competition. A company shielded from foreign competitors is more likely to have market power, which in turn gives it the ability to raise prices above competitive levels. Opening up trade fosters competitions and gives the invisible hand a better chance to work its magic.

The transfer of technological advances around the world is often thought to be linked to foreign trade. Since human capacities vary all over the globe, foreign trade brings about

exchange of ideas. All these ideas and qualities are transported from one country to the other through trade.

In Nigeria, foreign trade helps in no small measure to accelerate economic growth. It has helped in the importation of machineries such as tractors, ploughs, industrial plants and equipment. With all these equipment, the Nigerian economy is able to increase her productivity and thus quicken economic growth. Foreign trade has been a major determinant of foreigner's investment in Nigeria. Foreign trade has helped in upgrading socio economic value of citizens, because through foreigner's investment, employment opportunities were created.

2.5 Problems of Foreign Trade

There are many problems in foreign trade. One of the problems is language. When goods are exported to a foreign country, the labels, informative literature, packing technical handout, should be prepared in the language of the country in which the goods are marketed.

There should also be salesmen who are versed with that language and know the habits and likings of the people.

Another problem is the issue of standardized units, in some countries of the world, the units of length; weight, capacity, and voltage are not the same. The exporters therefore shall have to see that the goods are prepared and supplied according to the standard specification of the importing country.

Sales in foreign currency are also one of the issues; every country has its own currency, which is not the legal tender in other country. Buyers abroad prefer to buy the goods in his own currency just as sellers prefer to sell in the currency of his own country. The exporter therefore has to calculate the selling price of the goods into the currency units of country where the goods are sold, taking into consideration due fluctuations in the foreign exchange by hedging. Also, when goods are exported or imported a number of documents are to be prepared.

2.6 Challenges of Foreign Trade

- **Distance**

Due to long distance between different countries, it is difficult to establish quick and close trade contacts between traders. Buyers and sellers rarely meet one another and personal contact is rarely possible.

There is a great time lag between placement of order and receipt of goods from foreign countries. Distance creates higher costs of transportation and greater risks.

- **Different languages**

Different languages are spoken and written in different countries. Price lists and catalogues are prepared in foreign languages. Advertisements and correspondence also are to be done in foreign languages.

A trader wishing to buy or sell goods abroad must know the foreign language or employ somebody who knows that language.

- **Difficulty in transportation and communication**

Dispatch and receipt of goods takes a longer time and involves considerable expenses. During the war and natural calamities, transportation of goods becomes even more difficult. Similarly, the costs of sending or receiving information are very high.

- **Risk in transit**

Foreign trade involves much greater risk than home trade. Goods have to be transported over long distances and they are exposed to perils of the sea. Many of these risks can be covered through marine insurance but increases the cost of goods.

- **Lack of information about foreign businessmen**

In the absence of direct and close relationship between buyers and sellers, special steps are necessary to verify the credit worthiness of foreign buyers. It is difficult to obtain reliable information concerning the financial position and business standing of the foreign traders. Therefore, credit risk is high.

- **Import and export restrictions**

Every country charges customs duties on imports to protect its home industries. Similarly, tariff rates are put on exports of raw materials. Importers and exporters have to face tariff restrictions.

They are required to fulfill several customs formalities and rules. Foreign trade policy, procedures, rules and regulations differ from country to country and keep on changing from time to time.

- **Documentation**

Both exporters and importers have to prepare several documents which involve expenditure of time and money.

- **Study of foreign markets**

Every foreign market has its own characteristics. It has requirements, customs, weights and measures, marketing methods, etc., of its own. An extensive study of foreign markets is essential for success in foreign trade. It is very difficult to collect accurate and up to date information about foreign markets.

- **Problems in payments**

Every country has its own currency and the rate at which one currency can be exchanged for another (called exchange rate) keeps on fluctuating. Change in exchange rate creates

additional risk. Remittance of money for payments in foreign trade involves much time and expense. Due to wide time gap between dispatch of goods and receipt of payment, there is greater risk of bad debts.

- **Frequent market changes**

It is difficult to anticipate changes in demand and supply conditions abroad. Prices in international markets may change frequently. Such changes are due to entry of new competitors, changes in buyers' preferences, changes in import duties and freight rates, fluctuations in exchange rates, etc.

- **Investment for longer period**

There is longer time gap between supply of goods and receipt of payment. Therefore, the exporter's capital remains locked up over a longer period.

- **Intense competition:**

Traders who want to sell goods abroad have to face severe competition from different countries. Considerable market research is necessary to ensure suitability of product in foreign markets. Heavy expenditure on advertising and sales promotion may be necessary.

2.7 Empirical Literature

There exists enormous empirical evidence on the relationship between foreign trade and economic growth tested in a number of countries, employing time series techniques. It is noteworthy that the evidence generated does not translate into a consensus on the direction of causality of the two series. Furthermore, the relationship between foreign trade and economic growth remains controversial issue for both researchers and academics alike. Some authors have argued that growth in foreign trade precedes economic growth and hence giving a stance to the export-led –growth hypothesis Arnald

et al, (2005); Fosu (2012); Thornton (2013), on the other hand have provided evidence in support of the growth-led-export hypothesis by arguing that economic growth precedes export. Lancaster (2000); Krugman (2002); Henriques and Sadorsky (2006); Al-Yousif (2009); Kemal et al (2012). The stance of this argument is such that economic growth leads to knowledge and technological development in the various sectors of an economy through the learning- by-effects. This effect on the economy becomes a vehicle for growth in foreign trade especially in those commodities where the country enjoys a comparative advantage. Other authors argued that there is a feedback relationship between foreign trade and economic growth Helpman and Krugman (2005); Dutt and Ghosh (2010); Thornton (2009); Shan and Sun (2008a); Anwar et al (2000). Furthermore; Kavoussi (2004), studied 73 middle and low income developing countries, and found out that the high rate of economic growth was strongly correlated with high rate of export growth. They observed that there is a positive correlation between exports and economic growth for both middle and low income countries, but the effects tend to diminish according to the level of economic development of the country. The literature on the dynamic interaction of openness, flexibility and economic performance is voluminous and consensus on whether trade promotes economic growth. The arguments presented along these lines are that exports may arise from the economies of scale effects of economic growth. At the same time, exports expansion may propel further cost reductions leading to efficiency gains, and by extension, leading to economic growth. On the extreme, some authors find no causal relationship between the two series Mutairi (2003); Anwar et al (2000). So many researchers have looked at a single country effect of foreign trade and economic growth, while there are also substantial authors who have examined cross-country empirical literature on the effects of exports on economic growth Voivodas (2007); Michaely (2005); Balassa (2008); Fajana (2009); Fosu (2000); Lussier (2003); Greenaway and Sapsford (2004) and Sala-i-Martin (2007).

In this work the author seeks to evaluate export-led-growth with particular reference to Nigeria. It is important to note that most of the recent and earlier literature on foreign trade and economic growth concentrated on aggregate export only. The major deficiency

of this approach is that it limits our understanding of the important differences between dissimilar export components and their influence on economic growth. It is argued that even if there is a growth-enhancing or growth-limiting effect of a particular export component, it may not be reflected at the aggregate level, and this may lead to unrealistic conclusions and implications for policy (Ghatak et al, 2007). All the cross-country studies cited above do not explicitly investigate the effect of disaggregated foreign trade on economic growth.

Empirical literature overwhelmingly suggests that increased trade or less protectionism is associated with greater growth. Harrison (2011) synthesized previous empirical studies between openness and the rate of GDP growth, comparing the results from cross section and panel estimates while controlling for country effects, she concluded that correlation across openness measures seem to be positively associated with GDP growth. The more open the economy, the higher the growth rate or the more protected the local economy, the slower the growth in income. The second category of studies examines the extent to which export performance differences may explain inter-country economic growth differentials. Studies in this category include Balassa (2005 and 2008); Ram (2007); Feder (2002) and Michaely (2006). Most of these studies employed a production function framework that included exports as an additional argument of the production function.

In Nigeria, some authors have examined the performance of foreign trade and economic growth. For instance, Fajana (2000) investigates the impact of export and foreign capital on economic growth. He finds that export has greater impact on GDP growth than foreign capital inflows; he used time series data over the period of 1964-2004. He recommended that Nigeria should de-emphasize reliance on foreign capital while export should be promoted. Obadan (2009) examined the impact of export instability on the economic development of Nigeria, more importantly, the study examines whether or not fluctuations in Nigeria's export earnings have adverse effects on the economy. The results of the study using multivariate analysis as the framework, confirm the hypothesis that export instability is an important obstacle to Nigeria's economic development. In

particular, export instability is found to be highly detrimental to the growth rate of investment as well as resulting in smaller proportions of national income being invested. The result also supports the claim that Nigeria's economic growth is export-led. Akerele (2001), relying on appropriate quantitative techniques, identified sources of instability in export earnings for the Nigeria economy for the period of 1980-2007. He observed that political as well as economic factors provided sources of instability in Nigeria's export earnings. The influence of political factors is not surprising, since the period of the study coincided with the imposition of various sanction on Nigeria for failing to adopt western-style of democracy.

Ogbokor (2011) investigated the macroeconomic impact of oil exports on the economy of Nigeria. Utilizing the popular OLS technique, he observed that economic growth reacted in a predictable fashion to changes in the independent variables used in the study. He also found that a 10 percent increase in oil exports would lead to 5.2 percent jump in economic growth. He concluded that export oriented strategies should be given a more practical support. Udah (2011), adopted the time series characteristics, the purpose is to determine the order of integration and he conducted a unit root test on the variables included in the regression model by employing modified unit root tests. The objective here is to determine the underlying properties of the process that generate the result and discussion of the analysis. Secondly, the study proceeded further to test the long-run equilibrium relationship between the variables used in the model by employing the Auto-regressive distributed lag bounds testing approach to co-integration proposed by Pesaran et al (2001).

Michaely (2007) focused his attention on the improvement between the rate of growth of export and GDP; he found out that the correlation between rates of growth of the economy is particularly strong among the countries with successful growth experience. In addition, Asher (2010) outlined that more than 80 percent of the foreign exchange of less developed countries is earned through exports of goods and services. Massel et al (2002) investigated the pattern of economic growth of some selected less developing countries using regression models, they observed that a high degree of association exists between

exports and economic growth. They suggested that countries should aim at 2.5 percent expansion in export activities to obtain one percent increase in economic performance. Krueger (2007) expressed in his work additional empirical demonstration of a strong association between exports performance and economic growth by undertaking a comprehensive study of the role of exports on the economic growth of 10 countries from 1990-2004, a single non-linear regression equation was specifically estimated for each of the chosen countries and he found exports and GDP to be highly correlated. Also, Balassa (2008) studied eleven countries that have an established industrial base. He discovered that the positive correlation between export growth and the GDP growth will provide indication of the total effects of exports on economic growth.

Lin and Li (2002) examined the contribution of foreign trade to China's economic growth and found that the previous reviews on foreign trade underestimated the contribution of exports to GDP growth by overlooking the indirect impacts of exports on domestic consumption, investment, government expenditures and imports, they proposed a new estimation method and found that a 10 percent increase in exports resulted in one percent increase in GDP in the 1990's in China when both direct and indirect contributions were considered. Wah (2004) in his study reported that for the past forty years (1960-2000), the Malaysian economy grew at an impressive average rate of 6.8 percent per annum. The rapid growth was attributed, in part to the remarkable success in the export-oriented industrialization policy. Thirlwall (1997) explained the possibility that export growth may set up a vicious cycle of growth such that once a country is on the path of growth, it maintains its competitive position in the world trade and performs continually better relative to other countries. He also contended that export growth relieves a country of balance of payments constraints so that the faster the exports grow, the faster the output growth can be without running into balance of payments difficulties. His findings suggested that an export based strategy of development offers the best prospects for economic growth. Sachs and Warner (2007) found that lack of openness was the most

significant contributor to the dismal of economic growth performance in sub-Saharan Africa.

Egwaikhide (2001) examined the qualitative effects of export particularly non-oil expansion on economic growth in Nigeria over the period (1960-1983). Based on simulation experiment, he observed that a 75 percent rise in non-oil export led to 1.4 percent increase in real GDP. In his conclusion he emphasized that, there is a need to promote export in order to enhance GDP growth in Nigeria. Fajana (2007) observed the impact of export and foreign capital on economic growth; he found that export has greater impact on GDP growth than foreign capital inflows over ten year period. He recommended that Nigeria should not emphasize on the reliance of foreign capital so that export can be promoted in Nigeria. Harrison (1991) study made a synthesis of previous empirical studies between openness and the GDP growth rate comparing the results from cross-section and panel estimations while controlling for country effects. The study concluded that on the whole, correlations across openness measure seem to be positively associated with GDP growth, the more open the economy the higher the growth rate or the more protected the local economy.

Edwards (2008) explained that after taking into account the roles of all other factors including capital accumulation, growth in labour force including differences in the level of technology, countries with lower degrees of protectionism, on the average tend to grow at a much faster pace than countries with higher trade restrictions. Oviemuno (2007) investigated the impact of international trade as the engine of growth in developing countries between 1960-2008, taking Nigeria as a case study; he uses four important variables which are import, export, inflation and exchange rate, the findings show that Nigeria's export and import value does not act as an engine of growth in Nigeria, and that inflation rate in Nigeria does not act as an engine for growth.

Ekpo and Egwaikhide (2004) analyze the relationship between exports and economic growth within the framework of general production function, the study employed modern econometric techniques of co-integration and error correction model in its analysis. In particular, the study used the Engel-Granger two-step procedure of co-integration as well

as the associated error correction modeling technique in the analysis. Thus, the study in general validated the export led growth hypothesis for Nigeria. However, the study did not address the issue of causality and the direction of causality, and he observed that the issue of causality is very crucial in addressing the validity of the export-led growth hypothesis. Idowu (2005) used the traditional Granger causality and Johansen co-integration tests in his analysis of exports and economic growth in Nigeria. The results of the study showed that a bi-directional causality and long-run relationship exists between exports and economic growth in Nigeria. Uche (2009) in his studies employed econometric methodologies to assess the impact of oil and non-oil export on the growth of Nigerian economy and discovered that there is a unidirectional causality from oil export to GDP which goes to support the export-led growth hypothesis in the case of Nigeria but with reference to oil sector only. He also found that non-oil export does not Granger cause economic growth in Nigeria. Konya and Singh (2006) evaluate the link between trade and output growth in India, using granger causality procedure, their result shows that export and import granger causes GDP both individual and jointly. Usman (2011) focuses on the workings of trade on the Nigeria economic growth using multiple regression procedure. They indicate that export, import and exchange rate are all negatively related to real output of Nigeria. Eneji Nwanyanwu and Pong (2012) evaluates the effects of higher imports over exports on the textile industry and the aggregate economy in Nigeria, using the vector-regressive model; their report shows that more private investments are highly needed in the Nigerian economy to make it internationally competitive. Ogbokor (2011) investigates the macroeconomic impact of oil export on the economy of Nigeria, utilizing the popular OLS technique; he observed that economic growth reacts in a predictable fashion to changes in the independent variables used in the study. He also found that a 10 percent increase in oil exports would lead to 5.2 percent jump in economic growth. He concluded that export oriented strategies should be given a more practical support.

Obadan (2011) writes on the impact of export instability on the economic development of Nigeria, more importantly, the study examines whether or not fluctuations in Nigeria's

export earnings have adverse effects on the economy. The results of the study using multivariate analysis as the framework confirm the hypothesis that export instability is an important obstacle to Nigeria's economic development. In particular, export instability is found to be highly detrimental to the growth rate of investment as well as resulting in smaller proportions of national income being invested. The result also supports the claim that Nigeria economic growth is export led.

In conclusion, several methods of foreign trade in general differ in several studies. Prevalently, the trade to GDP ratio has been used by many as a proxy for foreign trade. In the analysis, it is also included that the growth rate of exports as a proxy also varies the concept of causality due to Granger (1969). The Granger causality approach is appropriate and used by most of the studies for testing the relationship between economic growth and exports.

The result of this has shown that foreign trades have both positive and negative effects on the economic growth of Nigeria. It can also be inferred that Nigeria engages in foreign trade with other countries so as to stimulate the economy.

2.4 Summary of reviewed literature

This chapter reviewed relevant literature on the impact of foreign trade on the economic growth of Nigeria. The objective is to help the reader understand the benefits and problems associated with foreign trading in Nigeria. Foreign trade plays a very important role in the establishment of economic and social elements of the countries around the world. In most countries, it represents the significant part of gross domestic product (GDP), there has been the exchange of goods and services across international borders for centuries due to its economic, social and political importance.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 INTRODUCTION

This chapter examines the main issue that relates to the methodology of the study with emphasis being laid on the choice of the research design and strategies, data requirements and sources, the nature and type of data collected the data processing and the parameters to be estimated. The section also specifies the model designed to test the hypothesis of the study. Vital concepts and terms used were defined and described for the purpose of giving the readers a deep insight into the phenomenon under the study.

3.1THEORETICAL FRAMEWORK

The literature on foreign trade suggests that exports have a positive impact on economic growth (Salvatore, 2010). According to Uche (2009), the relevance of exports in boosting economic growth and prosperity is captured within the theoretical justification for international trade.

3.2 MODEL SPECIFICATION

RGDP = F(NETEXP ,EXCR, OPEN, FDI,INF)

where:

RGDP = gross domestic product

NETEXP = Total export minus import

EXCR = exchange rate

OPEN = Trade openness

FDI = Foreign Direct Investment

INF = inflation

Assuming a linear relationship between our dependent variable and independent variables, our equation using the multiple regression analysis econometrically, the equation could be stated as follows:

$$RGDP = \beta_0 + \beta_1 NETEXP + \beta_2 EXCR + \beta_3 OPEN + \beta_4 FDI + \beta_5 INF + \mu$$

Given that the estimation is a time series analysis, we incorporate the time factor thus

$$RGDP_t = \beta_0 + \beta_1 NETEXP + \beta_2 EXCR_t + \beta_3 OPENt + \beta_4 FDI_t + \beta_5 INF_t + \mu_t$$

where

β_o= constant term of the model.

β_1 = coefficient of NETEXP

β_2 = coefficient of EXCR

β_3 = coefficient of OPEN

β_4= coefficient of FDI

β_5= coefficient of INF

U_t = stochastic error term

3.3 EVALUATION OF ESTIMATE

The evaluation procedures are to ensure whether or not the parameters estimated are statistically and theoretically acceptable and reliable.

3.4 ECONOMIC CRITERION

Apriori Expectations of the Parameters in the models are expected to have signs and sizes, which conform to economic theory. Thus, we expect the signs set against each

equation above to hold. If they hold, we accept them; otherwise they are rejected unless there is cogent reason to believe that in the realm of some circumstances such conditions can hold. The expected signs of the coefficient of the explanatory variables are:

$\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$ $\beta_4 > 0$ $\beta_5 < 0$

3.5 STATISTICAL CRITERION

Under the statistical method, test of Significance of Parameter Estimates (**t-statistics**) will be carried out at 5% level. This will enable us compare the computed t-statistic with the given tabulated t-statistic to establish significance. When the computed t-statistic is greater than the tabulated t-statistic the parameter in question is significant but otherwise is insignificant. **Goodness of Fit test (R^2).** Coefficient of determination known as R^2 will be used to measure the goodness of fit of the model. Thus the higher the R^2 the more the model is able to explain and hence the better the fit. Adequacy of regression equation (**F –test**). The regression equation is adequate if the computed F-statistic is higher than the tabulated F-statistic. There will also be a correlation test, which measures the degree of relationship between the variables under consideration.

Co-integration

Co-integration is an economic technique used in testing correlation between non-stationary time variables. Two series are co-integrate if they both move together along a trend at the same rate, co-integration then talks about the convergence of an econometric system to the existence of long run equilibrium relationship overtime.

Co-integration is necessary to generate an error correction model. The first thing to do is to regress the initial non-stationary series and obtain the residual, after the residuals have been obtained we then test whether the residuals are stationary or not, if the residuals are stationary then it means that a long relationship exists between the independent variables and dependent variable, in other words the variables are co-integrated.

By implication, the variables have a common trend and they will not drift far apart from each other. After long run equilibrium has been established between the variables, the error correction mechanism must be formed.

3.6 GRANGER CAUSALITY TEST PROCEDURE

In order to ascertain the significance of the second objective which is to determine the direction of causality between the RGDP and foreign in Nigeria, a granger causality test is carried out. The procedure adopted in this study for testing statistical causality is the "Granger-causality" test developed by C.W.J. Granger in 1969. The Granger causality tests determine the predictive content of one variable beyond that inherent in the explanatory variable itself.

3.7 ECONOMETRIC CRITERION

There will be a normality test, which helps to determine if the error term of the variables under consideration are normally distributed. This could be done using the hypothesis, which states that if the Chi-Square calculated is less than the Chi- Square tabulated, then it shows that the variables are normally distributed otherwise it is not normally distributed .

The Unit Root test, which measures the level of stationarity of the variables under consideration, would also be applied. This test is done using the Augmented Dickey Fuller test (ADF) with the hypothesis which states as follows: If the absolute value of the Augmented Dickey Fuller (ADF) test is greater than the critical value either at the 1%, 5%, or 10% level of significance, then the variables are stationary either at order zero, one, or two. The co integration test would be carried out if the variables have different orders of stationarity.

Also, the multicolinearity tests would be conducted in order to ascertain whether the variables under consideration are serially correlated; also other tests that could be relevant to ascertain the significance level of the variables would be conducted.

The hetroscedasticity test would be conducted with the following decision rule: if the chi-square calculated is less than the chi-square we accept Ho, otherwise we reject.

3.8 DATA ANALYSIS METHOD

The ordinary least square (OLS) single equation is the estimation procedure adopted for this study. This model is chosen based on its Best linear Unbiased Estimates (BLUE) properties. The (OLS) estimators are consistent and sufficient. The ordinary least square technique is relatively simple to use and there is also already available software packages for use like MS excel, Eviews, are user friendly. Data requirements are also minimal and it is also easier to understand by non–experts in econometrics methodology

3.9 SOURCES AND METHOD OF DATA COLLECTION

The nature of data to be considered for this study is a secondary data and this will be drawn or sourced from the Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics. The data will be collected using method of extraction or transcription from the existing record which cover a period of 1980-2014. The data collected are on foreign trade proxy by export, import, openness, and economic growth is proxy by real gross domestic product (GDP) for the period under consideration.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

This section reviews the data analysis and the discussion of findings

4.1 DESCRIPTIVE STATISTICS

TABLE 1: DESCRIPTIVE STATISTICS

	RGDP	NETEXP	OPEN	EXCR	FDI	INF
Mean	445271.4	740952.9	46.10429	66.47169	943176.2	18.52423
Median	377830.8	231483.0	43.90000	21.88610	231629.0	11.89750
Maximum	950114.0	3853061.	97.30000	157.5000	3853248.	72.80000
Minimum	31546.76	-85562.00	6.600000	0.544500	-85450.01	0.220000
Std. Dev.	216845.0	1107444.	26.03647	64.36001	1200510.	16.73835
Skewness	0.701769	1.670304	0.143251	0.255284	0.911441	1.788611
Kurtosis	2.737958	4.668433	2.005850	1.237121	2.324369	5.405763
Jarque-Bera	2.972935	20.33403	1.561026	4.912280	5.511595	27.10197
Probability	0.226170	0.000038	0.458171	0.085765	0.063558	0.000001
Observations	35	35	35	35	35	35

Source: author's computation (2015)

The table above shows the descriptive statistics for the dependent and independent variables, RGDP, NETEXP, OPEN, EXCR, FDI and INF; all have a positive mean value which ranges from 18.52423 to 740952.9 with a 35 observations. The highest standard deviation of 1107444 is recorded by NETEXP while the least standard deviation of 16.7383 is recorded by INF. The Jarque –Bera statistics indicates that the variables are not normally distributed.

4.2 REGRESSION RESULT

In analyzing the model, OLS estimation technique is employed. The OLS estimation allows for goodness of fit of the model (co-efficient of multiple determination) to be determined as well as the linear relationship existing between the endogenous variable and each exogenous variables

TABLE 2: REGRESSION ESTIMATE RESULT

Dependent Variable: RGDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	141241.1	37006.28	3.816679	0.0007
NETEXP	-0.057665	0.020402	-2.826506	0.0084
OPEN	2160.965	602.0387	3.589413	0.0012
EXCR	2615.660	412.6634	6.338483	0.0000
FDI	0.087491	0.029047	3.012037	0.0053
INF	-499.8562	785.1051	-0.636674	0.5293

R-squared 0.920273 Adjusted R-squared 0.906527

F-statistic 66.94862

Durbin-Watson stat 1.413105

Source: author's computation (2015)

The result of the estimation of regression summarized in the table above shows that there is a positive relationship between Real GDP and coefficients of the variables, OPEN;

EXCR and FDI. The positive coefficient of EXCR variable conforms to the Apriori expectation; this is equally consistent to the study of Adewuyi (2002) who referred to foreign exchange rate as an engine of growth. Hence these results obtained goes in line with the studies conducted by Bairam (1988) and Perraton (1990) that concluded that growth performance of a country is a function of the values of its income elasticity of both exports and imports. For the positive coefficient of the FDI, Borensztein, Gregorio and Lee (1998) noted that 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).

The coefficients of the variables, NETEXP and INF show negative signs. This indicates that the variables during the period under study negatively affected the real gross domestic product of Nigeria. The negative relationship recorded for NETEXP on economic growth could be attributed to the finding of Contessi (2008) in a study of the US economy that the economy has experienced sluggish growth compared with the major trading partners. Thus, the U.S. demand for foreign-produced goods and services stalled; while the demand for U.S.-produced goods and services remained strong. An additional boost to net exports likely came from the depreciation of the dollar against the currencies of major U.S. trading partners in the first half of the year. The net effect has been a

significant unexpected export boom during which the trade balance has behaved as a countercyclical variable, in a fashion similar to episodes of sluggish growth.

Equally, Rashid, Ullah and ZAMAN(2012) while analyzing the hypothesis that export instability affects the economic growth for SAARC region countries (Pakistan, India, Sri-Lanka and Nepal) noted that export instability has deleterious effects for these four countries on economic growth and its magnitude is higher for Sri Lanka economy. According to the author, the exports and investment has positive and significant effects on economic growth for all countries except the Nepalese economy where export has negative but insignificant effect on its economic growth. The negative coefficient of the INF variable is quite understandable following assertion by Barro (2013) while using data for around 100 countries from 1960 to 1990 in order to assess the effects of inflation on economic performance. The author noted that if a number of country characteristics are held constant, then regression results indicate that the impact effects from an increase in average inflation by 10 percentage points per year are a reduction of the growth rate of real per capita GDP by 0.2-0.3 percentage points per year and a decrease in the ratio of investment to GDP by 0.4-0.6 percentage points. However, the author stated that statistically significant results emerge only when high- inflation experiences are included in the sample. Although the adverse influence of inflation on growth looks small, the long-term effects on standards of living are substantial. For example, a shift in monetary policy that raises the long-term average inflation rate by 10 percentage points per year is estimated to lower the level of real GDP after 30 years by 4-7%, more than enough to justify a strong interest in price stability.

4.3 STATISTICAL CRITERIA

Statistically, the t-statistic of the variable under consideration is interpreted based on the following decision rule: if the t -values of the variable under consideration is $\leq -2 \geq 2$;

it shows that the variable under consideration is statistically significant otherwise it is not. For the variables under consideration:

TABLE 3: STATISTICS RESULT

Variable	t-Statistic	Prob.
C	3.213625	0.0033
NETEXP	-2.826506	0.0084
INF	-0.636674	0.5293
OPEN	3.675896	0.0010
EXCR	3.751725	0.0008
FDI	3.012037	0.0053

Source: author's computation (2015)

The result from the t-statistics table above shows that four variables, NETEXP, OPEN, EXCR and FDI exhibited values that is greater than positive two and less than the negative two. This shows that the variables are statically significant, while the other variables are not significant statistically.

F-statistics test the overall significance of the model under study. F-calculated is compared with F-tabulated where F- cal is greater than F-tab we reject the null hypothesis (Ho) and conclude that the variable is statistically significant in explaining the dependent variable. It goes with the following assumptions:

$V_1 = K - 1$

$V_2 = N - K$

where

K = number of parameter

N = number of observation

For the variable under consideration:

K-1 5-1= 4

N-K =35-5=30

The F-cal(4, 30) = 66.94862 while the F- tabulated (4, 30) = 4.51

Decision: Since the F-calculated is greater that the F- tabulated, it shows that the overall estimate of the regression has a good fit and is statistically significant.

The R-squared which is the coefficient of determination, shows the percentage of variation in the dependent variable that was accounted for by variations in the explanatory variables. It measures the explanatory powers of the model. It is usually between zero and one. A close inspection of the table above indicates that the specified model has a fairly high coefficient of determination. This can be seen from R -squared of 0.920273. The R-squared reports that the variables can explain about 92 per cent of total variation in real gross domestic product the remaining 8 per cent variation in the real gross domestic product are not accounted for in the model or rather accounted for by other variables outside the model. The fitness of every regression result is based on its R-squared. The adjusted R-squared of 0.906527shows that asymptotically, the variables can explain approximately 90 per cent of total variation. The implication of this is that the model has goodness of fit.

Durbin – Watson Statistic indicates whether there is serial correlation in the model. If there is serial correlation in model it therefore implies that the model has lost its predictive power. Durbin – Watson Statistic is given as 1.413105 and this suggests that the model is free autocorrelation. Consequently, the estimated model can be confidently relied upon for making inferences and for prediction purposes.

4.4 UNIT ROOT TEST

Literature has established that most time series variables are not stationary. Therefore, using non-stationary variables in the model might lead to spurious regression which

cannot be used for precise prediction (Gujarati, 2003). Hence, our first step is to examine the characteristics of the time series data used for estimation of the model to determine whether the variables have unit roots, that is, whether it is stationary and the order of integration. The Augmented Dickey-Fuller (ADF) and Philip Peron test statistics are used for this purpose. A variable is considered stationary if the absolute ADF value is higher than any of the absolute Mackinnon values. The test is conducted with no intercept term.

TABLE 4: UNIT ROOT TEST RESULT

	ADF Test Statistic			**Phillips-Peron Test Equation**	
VARIABLE	I(0)	I(1)	P.Value	I(0)	I(1)
EXPORT	1.375296	-4.093190	0.0003	1.523176	-6.221647
NETEXP	-1.595108	-5.492351	0.0000	-1.301117	-5.235949
OPEN	-0.468841	-3.632938	0.0010	-0.561183	-5.676939
FDI	-0.107148	-8.336342	0.0000	0.564198	-5.880544
INF	-1.853183	-8.336342	0.0000	-1.825564	-6.245409
EXCR	-3.357155	-3.357155	0.0022	1.302339	-4.416180
RGDP	1.447563	-2.147341	0.0400	1.456568	-5.162656

Source: author's computation (2015)

From the table above the results clearly shows that EXCR variable is stationary at level only in ADF test. Meanwhile all the variables, RGDP, NETEXP, OPEN, EXCR FDI and INF are non-stationary at level in Philip Peron test procedure. This suggests the need to difference the series to obtain stationarity. At first difference, these variables are integrated of the same order. Thus indicting that the variables under consideration are integrated of order one both in ADF and Philip Peron unit root test procedures. Therefore a co-integration test would be conducted.

4.5 COINTEGRATION TEST

When a linear combination of variables that are I(1) produces a stationary series, then the variables may need to be co integrated. This means that a long-run relationship may exist among them, which connotes that they may wander from one another in the short-run but in the long-run they will move together. To establish whether long-run relationship exists among the variables or not, co-integration tests are conducted by using the multivariate procedure developed by Johansen (1988) and Johansen and Juselius (1990). The nature of the estimator means that the estimates are robust to simultaneity bias, and it is robust to departure from normality (Johansen, 1995). Johansen method detects a number of co-integrating vectors in non-stationary time series. It allows for hypothesis testing regarding the elements of co-integrating vectors and loading matrix.

The co-integration tests include: RGDP, NETEXP, OPEN, EXCR, FDI and INF, which includes two lags in the VAR. The results of the conducted Johansen tests for co-integration amongst the variables is specifies in the table below:

TABLE 5: COINTEGRATION TEST RESULT

	Likelihood	5 Percent	1 Percent	Hypothesized
Eigenvalue	Ratio	Critical Value	Critical Value	No. of CE(s)
0.844172	124.5567	82.49	90.45	None **
0.658491	65.06874	59.46	66.52	At most 1 *
0.454064	30.68852	39.89	45.58	At most 2
0.186455	11.32038	24.31	29.75	At most 3
0.124146	4.717059	12.53	16.31	At most 4
0.014742	0.475272	3.84	6.51	At most 5

*(**) denotes rejection of the hypothesis at 5%(1%) significance level

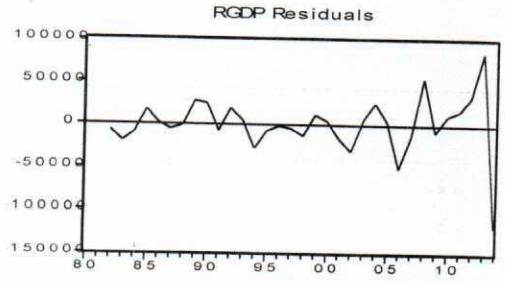
L.R. test indicates 2 co-integrating equation(s) at 5% significance level

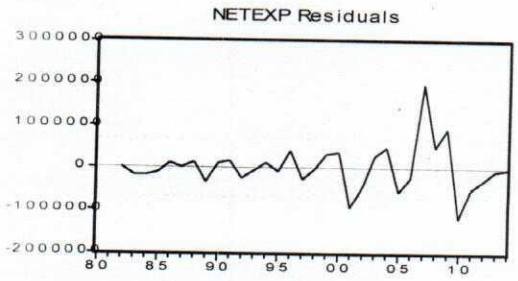
Source: author's computation (2015)

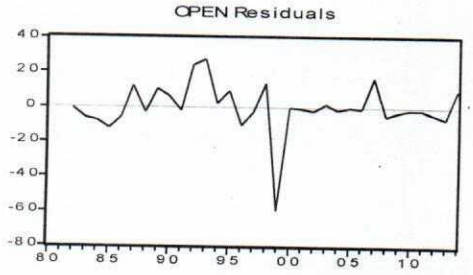
From the table above, the trace likelihood ratio results point out that the null hypothesis of no co-integration among the variables is rejected in favour of the alternative hypothesis up to two co-integrating equations at 5% significant level because their values exceed the critical values. This means there are at most two integrating equations, which implies that a unique long-run relationship exists among the variables and the coefficients of estimated regression can be taken as equilibrium values. It can thus be stated that there exists stable relationship between the foreign trade indicators and real GDP.

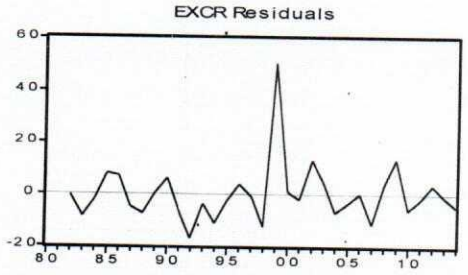
4.6 THE RESIDUAL RESULT

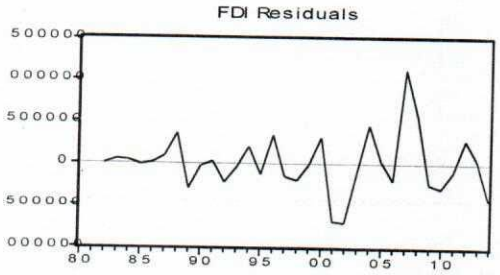
The graph in table below shows the residual test conducted after co-integration test. It displays the behaviour of the variables under consideration:

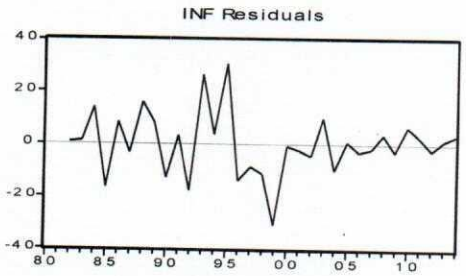












4.7 GRANGER CAUSALITY TEST

The procedure used in this study for testing statistical causality between the Real Gross Domestic Product RGDP, NETEXP, OPEN, EXCR, FDI and INF is the "Granger-causality" test developed by C.W.J. Granger in 1969. The Granger causality tests determine the predictive content of one variable beyond that inherent in the explanatory variable itself. In order to examine the Granger causal relationships between the variables under examination, we used the estimated model in the previous section. F - statistic was used as a testing criterion. The results relating to the existence of Granger causal relationships between the variables are presented in the table below:

TABLE 6: GRANGER CAUSALITY TEST RESULT

Null Hypothesis:	Obs	F-Statistic	Probability
NETEXP does not Granger Cause RGDP	33	4.44083	0.02113
RGDP does not Granger Cause NETEXP		1.84990	0.17596
OPEN does not Granger Cause RGDP	33	0.61282	0.54893
RGDP does not Granger Cause OPEN		0.39526	0.67721
EXCR does not Granger Cause RGDP	33	2.51138	0.09927
RGDP does not Granger Cause EXCR		0.28748	0.75234
FDI does not Granger Cause RGDP	33	3.94228	0.03101
RGDP does not Granger Cause FDI		4.81153	0.01599
INF does not Granger Cause RGDP	33	0.00588	0.99414
RGDP does not Granger Cause INF		1.20530	0.31467

Source: author's computation(2015)

From table above we can infer that: there is a unidirectional causal relationship between the RGDP real gross domestic product and NETEXP with direction from NETEXP to real gross domestic product RGDP. This implies that NETEXP granger causes RGDP in the Nigerian economy during the period under review. Also, it could be seen that there is no direction of causality between OPEN and RGDP. It could equally be stated that causality exists from exchange rate to between real gross domestic products. The test result shows that a bilateral causality exits between FDI and RGDP. The bilateral causality between foreign direct invest and real gross domestic product could be attributed to the study conducted by WIR (2001) on Sub-Saharan African countries economy. The author noted that Africa share of FDI in the world fell below 1 percent in

2000; Sub-Saharan Africa also registered the same trend. Sub Saharan African countries have thus been depending mainly on domestic private investment and public investment as well. Despite the relatively lower flow of FDI in these economies, explaining probably its small effect, such type of investment is still seen from the study to play a non-negligible role in economic growth. Also, there is no causal relationship between the real gross domestic product and inflation rate.

4.8 MULTICOLINEARITY TEST

In the multicolinearity, we test the entire variable in order to ascertain whether they are collated and their degrees of correlation. This also measures their degrees for relationship with the dependent variable. We test the variables to ascertain the degree of relationship that exist between the independent variables and the dependent variable. For the variables under consideration, the values obtained are as follows:

TABLE 7: MULTICOLINEARITY TEST RESULT

	RGDP	NETEXP	OPEN	EXCR	FDI	INF
RGDP	1.000000	0.559922	-0.115316	-0.892525	-0.853716	-0.224871
NETEXP	-0.559922	1.000000	-0.266421	-0.655415	-0.837696	-0.232489
OPEN	-0.115316	-0.266421	1.000000	-0.435292	-0.202902	-0.441413
EXCR	-0.892525	-0.655415	-0.435292	1.000000	-0.847499	-0.301890
FDI	-0.853716	-0.837696	-0.202902	-0.847499	1.000000	-0.278544
INF	-0.224871	-0.232489	-0.441413	-0.301890	-0.278544	1.000000

Source: author's computation (2015)

The correlation result shows that our focal variables, NETEXP, EXCR and FDI have positive relationships with the RGDP. The relationships are 55%, 89% and 85%, respectively. This shows that the variables impacted on the economic growth of the economy positively. While the variables, OPEN and INF indicate negative signs with values from 11% and 22%. It implies that during the period under review, the openness and inflation contributed little to the country's economy.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY OF FINDINGS

In conclusion, the descriptive statistics of the variables under consideration indicates that RGDP, NETEXP, OPENESS, EXCR, FDI and INFLATION all have a positive mean value which ranges from 18.52423 to 740952.9 with a 35 observations.

From the result obtained, the highest standard deviation of 1107444 is recorded by NETEXP.

The OLS regression result obtained indicates that there is a positive relationship between RGDP and coefficient of the variables, i.e. OPENESS, EXCR and FDI.

Statistically, the T-statistics test of the results conducted shows that the variables are statistically significant, i.e. NETEXP, OPENESS, EXCR and FDI exhibited values that are greater than the positive 2 and less than the negative 2, while other variable like INF is not statistically significant.

The R-squared result report that the variables can explain about 92% of total variation in RGDP while the remaining 8% variation in the RGDP are not accounted for by other variables outside the model.

The Durbin Watson test conducted suggests that the model is free of auto-correlation.

The unit root test conducted indicates that all the variables under consideration are integrated 1(1) both in ADF and Philip Peron unit root test procedures.

The co-integration test conducted shows that there are two integrating equations which imply that a unique long run relationship exists among the variables and the coefficient of estimated variables can be taken as equilibrium values.

From the granger causality test conducted, the result shows that there is an undirectional relationship between RGDP and NETEXP, which means that NETEXP granger causes RGDP; hence, there is no direction of causality between IMPORT and RGDP. It could also be seen that there is causality between OPENESS and RGDP. It could equally be stated that causality exists from EXCR to RGDP.

The normality test conducted indicates that the error term is not normally distributed. From the multicolinearity result, it shows that OPENESS and INFLATION contributed little to Nigeria economic growth.

5.2 CONCLUSION

This study evaluates the impact of foreign trade on economic growth in Nigeria from 1980 to 2014. Foreign trade plays a very important role in the establishment of economic and social elements of the countries around the world. In most countries, it represents the significant part of gross domestic product (GDP). There has been the exchange of goods and services across international borders for centuries due to its economic, social and political importance. The analysis of an economy in terms of growth rate and per capita income has been based on the domestic production, consumption activities and in conjunction with foreign operation of goods and services. Before the discovery of oil in 1960's, the Nigerian government was able to carry out investment project through domestic savings, earning from agricultural product exports and foreign aids. Before 1972, most of the country's exports were agricultural commodities like cocoa, palm produce, cotton and groundnut. Thereafter, minerals, especially crude oil, petroleum, became significant export commodities. The literature on foreign trade suggests that exports have a positive impact on economic growth, the relevance of exports in boosting economic growth and prosperity is captured in the theoretical justification for international trade. In the mercantilist economic thought, for instance, foreign trade is seen as indispensable engine of economic growth and prosperity. Every country ensures that it gets a surplus in international trade, there will be high degree of protectionism and many barriers to the flow of foreign trade and these are incompatible with the essence of globalization.

5.3 RECOMMENDATIONS

Based on the findings of this research work and the conclusion drawn from it, the following recommendations are made regarding the research to the Nigeria economy.

- Excise duties should be reduced so as to encourage local industries to export their goods and services
- There is need for Nigeria to lessen export-import dependence through the diversification of domestic production
- Nigeria should reframe from excessive consumption of foreign goods and services so that their import might be cut-off
- The manufacturing industries should improve on their production so that their output would be competitive in the global market
- The Nigeria government should focus on the catch up strategy which could promote openness and enhance domestic capability, thereby increasing productivity of economy.

REFERENCES

Adelowokan, O.A. &Maku, A.O. (2013). Trade Openness, Foreign Investment and Economic Growth in Nigeria: A Long-Run Analysis. *European Journal of Globalization and Development Research, Vol. 7.* Page 53-58

Adewuyi O., (2002), "Balance of Payments Constraints and Growth Rate Differences underAlternative Police Regimes"*Nigerian Institute of Social and Economic Research (NISER) Monograph Series No. 10,* p.29. Ibadan, Nigeria.

Asher A.O, (2010), '*Development Assistance*', Brookings Institute, Washington D.C., P. 157.

Balassa B. (2008),"The Process of Industrial Development and Alternative Development Strategies",*PrincetonEssays in International Finance, No. 141,* December, (Princeton, NJ, Princeton University, Departmentof Economics).

BhagwatiJ. (2003): *Foreign Trade Regimes and Economic Development: Anatomy andConsequences of Exchange Contrast Regimes*, Cambridge, MA, Ballinger PublishingCompany.

Bhat, S.K. (1978): Export and Economic Growth in India,*ArthaVijana, vol. 37.*

Central bank of Nigeria (CBN), Annual Report and Account ;(2004) various issues.

Edwards B., (2008), "Openness, Productivity and Growth: What do we really know?" *Economic Journal, vol.108(1).*P. 383-398

EgwaikhideF.O (2001). "Economic Growth through Export Expansion:*Evidence from Nigeria'.NISERR MonographSeries No 10,NISER,* Ibadan.

Emeka, E.J., Frederick, I. & Peter, A. (2012). Macroeconomic Impact of Trade on Nigeria Growth: An Empirical Evaluation. *Research Journal of Business Management and Accounting, Vol. 1(4).*

Ezenwe E., (1979), "Nigeria and Foreign Trade Policies in the 1980's"*The Nigeria Journal of InternationalStudies vol. 3, Nos1 and 2*, January – June. Page 94

Fajana O. (2007),Trade and Growth: The Nigerian Experience" *World Development, Vol. 7.* Page 73-79

Harrison A., (1991), "Openness and Growth: A Time Series, Cross Country Analysis for Developing Countries",*World Bank Policy Research Papers, No. 809*, Washington DC

IrwinB.and Douglas A. (2002), "*Did Import Substitution Promote Growth in the Late NineteenthCentury," NBER Working Paper No. 8751* (February).

Jafiya, (2004), "Financing Export of Goods and Services an Ensuring Prompt Payment": *Paper delivered atNational Seminar on Export,* Organized by Africa Project Consult Kano.

Jhingan M.L, (2003), *Economic Development and Planning, 35th Edition,* page 59

Krueger A.O (2007), "Trade Policy and Economic Development"*: How We Learn",American Economic Review.*Page 1-21

Li, Y., Chen, Z. & San, C. (2010). Research on the Relationship between Foreign Trade and the GDP Growth of East China- Empirical Analysis Based on Causality. *Modern Economy.*

Lin J.Y. and Li, x., (2002), "*Testing the Neoclassical Theory of Economic Growth: Evidence from Chinese Provinces",Economics of Planning.*

Massel A.(2002), 'Foreign Exchange and Economic Development'.An Empirical Study ofSelected Latin AmericanCountries.*Review of Economic and Statistics.*

Michealy M.,(2007), 'Exports and Economic Growth. An Empirical Investigation' *Journal of Development Economics,Vols 3-4.*P. 418-452

Obadan M.I. (2009), '*Prospects for Diversification in Nigeria's Export Trade' in Annual Conference of the NigerianEconomic Society, Heinemann Press, Ibadan page 33-53.* unpublished e mass: press.

Obiora K.I., (2009), "Do Trading Partners still matter for Nigeria's Growth?"*A contribution to the debate onDecoupling and Spillovers' IMF Working Paper.*Page 17-19

Ogbokor B. (2011), 'Oil and Economic Growth: *An Econometric Analysis' J Development Alternatives and AreaStudies, 20: 124 – 130.*

Omoju, O. &Adesanya, O. (2012). Does Trade Promote Growth in Developing Countries? Empirical Evidence from Nigeria.*International Journal of Development and Sustainability, Vol. 1,* page 119-21

Olaniyi A.O, (2005), "Nigeria's Trade Policy from 1960-2004: A critical review".*Paper presented at the workshopon capacity building on International Trade,National Assembly in Collaboration with Friedrich EbertStiftung (Nigeria), Jos 25-17* July 2005.

Oviemuno O.(2007), '*International Trade as an Engine of Growth on Developing Countries*: A case study of Nigeria; page 112-115(1980 - 2003).

Perraton J. (1990) "The Harrod Foreign Trade Multiplier and the Developing Countries; 1970 to 1985: *An Examinationof the Thirwall Hypothesis, page 25-30"* University of Nottingliam press.

Sachs J. and A. Warner, (2007), "Sources of Slow Growth in African Economies",*Journal of African Economics, No.6*, Oxford.

Saibu, F.M. (2012). *Capital Flows, Trade Openness and Economic Growth Dynamics: New Empirical Evidence from Nigerian Economy*. Department of Economics and Econometrics, University of Johannesburg, Johannesburg. Page 15-20

Salvatora D. (2010): "*International Economics Schaum Outline Series*, Tata McGraw Hill.

Shuchin M., (2009), *the World Bank Development Institute*. Page 115-19

Sun P. &Heshmati A. (2012).International Trade and its Effect on Economic Growth in China.*IZA Discussion Paper No. 5151*, page 91-95 The Institute for the Study of Labour, Germany

Thirlwall A.P, (1997), Reflections on the concept of Balance of Payments Constrained Growth, *Journal of PostKeynesian Economics, vol. 19(3)*, P.337-385

TodaroH.Y, and Smith A. (2009), *Economic Development*; Pearson edu.Ltd.

Ulasan, B. (2012). Openness to International Trade and Economic Growth: A Cross-Country Empirical Investigation. *Discussion Paper No. 2012-25, accessed online fromhttp://www.economics-ejournal.org*

Wah A. (2004), "The Role of Domestic Demand in the Economic Growth of Malaysia; A Co Integration Analysis"*International Economic Journal,* Volume 18, Issue. Page 337-352

APPENDIX

REGRESSION RESULT

DATA

years	RGDP	INF	OPEN	EXCR	NETEXP	FDI
1980	31546.76	9.9	48.6	0.5445	5091.1	5150.145
1981	251052.3	7.7	49.1	0.6369	-1816.3	-1758.86
1982	246726.6	7.7	38.7	0.6702	-2564.1	-2517.03
1983	230380.8	23.2	31.1	0.7486	-1401.2	-1346.15
1984	227254.7	39.6	27.8	0.8083	1909.7	1977.908
1985	253013.3	5.5	28.5	0.9996	4658.2	4693.2
1986	257784.4	5.4	37.6	3.3166	2937	2983.317
1987	255997	10.2	53.3	4.1916	12498.9	12566.59
1988	275409.6	38.3	45.2	5.353	9747.1	9835.953
1989	295090.8	40.9	57.9	7.65	27111	27217.45
1990	328606.1	7.5	72.2	9.0001	64168.2	64256.9
1991	328644.5	13	68.6	9.7545	32047.2	32138.55
1992	337288.6	14.5	82.7	9.7545	62460.5	62567.45
1993	342540.5	57.2	97.3	22.6309	53140.7	53317.83
1994	345228.5	57	82.5	21.8861	43270.4	43431.79
1995	352646.2	72.8	86.5	21.8861	195533.7	195714.9
1996	367218.1	29.3	75.6	21.8861	746916.4	747043.2
1997	377830.8	8.5	75.2	21.8861	395946.4	396052
1998	388468.1	10	80.1	21.886	-85562	-85450
1999	393107.2	0.22	6.6	92.5284	326454.3	326553.6
2000	412332	14.53	8.9	109.55	960700.6	960833.6
2001	431783.2	16.49	9	112.4864	509774	509912
2002	451785.7	12.14	7.5	126.4	231483	231629
2003	495007.2	23.84	10.8	135.4067	1007652	1007822
2004	527576	10.01	12.5	132.67	2615737	2615892
2005	561931.4	11.57	17.9	130.4	2579232	2579392
2006	595821.6	8.57	18	128.27	1456031	1456186
2007	634251.1	6.56	39.8	117.968	2836176	2836340
2008	672202.6	15.1	41.2	130.75	3853061	3853248
2009	718977.3	10.83	42.1	147.6	3810251	2430535
2010	776332.2	12.965	47.4	148.67	643577.5	2523214
2011	834000.8	11.8975	43.3	156.2	735237.3	2551303
2012	888893	11.36375	43.9	157.5	370628.5	2003744
2013	950114	12.16438	48.6	157.31	619567.5	2420042
2014	747654.8	11.8975	77.65	157.31	1811695	3136645

RGDP C NETEXP OPEN EXCR FDI INF

Dependent Variable: RGDP
Method: Least Squares
Date: 08/25/15 Time: 19:13
Sample: 1980 2014
Included observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	141241.1	37006.28	3.816679	0.0007
NETEXP	-0.057665	0.020402	-2.826506	0.0084
OPEN	2160.965	602.0387	3.589413	0.0012
EXCR	2615.660	412.6634	6.338483	0.0000
FDI	0.087491	0.029047	3.012037	0.0053
INF	-499.8562	785.1051	-0.636674	0.5293

R-squared	0.920273	Mean dependent var	445271.4
Adjusted R-squared	0.906527	S.D. dependent var	216845.0
S.E. of regression	66296.64	Akaike info criterion	25.19647
Sum squared resid	1.27E+11	Schwarz criterion	25.46310
Log likelihood	-434.9382	F-statistic	66.94862
Durbin-Watson stat	1.413105	Prob(F-statistic)	0.000000

	RGDP	NETEXP	OPEN	EXCR	FDI	INF
Mean	445271.4	740952.9	46.10429	66.47169	943176.2	18.52423
Median	377830.8	231483.0	43.90000	21.88610	231629.0	11.89750
Maximum	950114.0	3853061.	97.30000	157.5000	3853248.	72.80000
Minimum	31546.76	-85562.00	6.600000	0.544500	-85450.01	0.220000
Std. Dev.	216845.0	1107444.	26.03647	64.36001	1200510.	16.73835
Skewness	0.701769	1.670304	0.143251	0.255284	0.911441	1.788611
Kurtosis	2.737958	4.668433	2.005850	1.237121	2.324369	5.405763
Jarque-Bera	2.972935	20.33403	1.561026	4.912280	5.511595	27.10197
Probability	0.226170	0.000038	0.458171	0.085765	0.063558	0.000001
Observations	35	35	35	35	35	35

Correlation matrix

	RGDP	NETEXP	OPEN	EXCR	FDI	INF
RGDP	1.000000	0.559922	-0.115316	0.892525	0.853716	-0.224871
NETEXP	0.559922	1.000000	-0.266421	0.655415	0.837696	-0.232489
OPEN	-0.115316	-0.266421	1.000000	-0.435292	-0.202902	0.441413
EXCR	0.892525	0.655415	-0.435292	1.000000	0.847499	-0.301890
FDI	0.853716	0.837696	-0.202902	0.847499	1.000000	-0.278544
INF	-0.224871	-0.232489	0.441413	-0.301890	-0.278544	1.000000

UNIT ROOT

ADF Test Statistic	-1.595108	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(NETEXP)
Method: Least Squares
Date: 08/25/15 Time: 19:21
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NETEXP(-1)	-0.172066	0.107871	-1.595108	0.1208
D(NETEXP(-1))	0.129538	0.187074	0.692441	0.4938

R-squared	0.072864	Mean dependent var	54954.87
Adjusted R-squared	0.042956	S.D. dependent var	800070.3
S.E. of regression	782697.7	Akaike info criterion	30.03757
Sum squared resid	1.90E+13	Schwarz criterion	30.12827
Log likelihood	-493.6199	Durbin-Watson stat	1.836063

ADF Test Statistic	-5.492351	1% Critical Value*	-2.6369
		5% Critical Value	-1.9517
		10% Critical Value	-1.6213

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(NETEXP,2)
Method: Least Squares
Date: 08/25/15 Time: 19:23
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NETEXP(-1))	-1.342024	0.244344	-5.492351	0.0000
D(NETEXP(-1),2)	0.394170	0.175240	2.249311	0.0320

R-squared	0.538466	Mean dependent var	37277.34
Adjusted R-squared	0.523082	S.D. dependent var	1108612.
S.E. of regression	765599.5	Akaike info criterion	29.99517
Sum squared resid	1.76E+13	Schwarz criterion	30.08678
Log likelihood	-477.9227	Durbin-Watson stat	2.080892

1% Critical Value*	-2.6344		
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(OPEN)
Method: Least Squares
Date: 08/18/15 Time: 10:00
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OPEN(-1)	-0.026309	0.056114	-0.468841	0.6425
D(OPEN(-1))	-0.035982	0.190348	-0.189035	0.8513

R-squared	0.006343	Mean dependent var	0.865152
Adjusted R-squared	-0.025710	S.D. dependent var	16.35376
S.E. of regression	16.56265	Akaike info criterion	8.510870
Sum squared resid	8503.967	Schwarz criterion	8.601567
Log likelihood	-138.4294	Durbin-Watson stat	1.874338

ADF Test Statistic	-3.632938	1% Critical Value*	-2.6369
		5% Critical Value	-1.9517
		10% Critical Value	-1.6213

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(OPEN,2)
Method: Least Squares
Date: 08/18/15 Time: 10:02
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(OPEN(-1))	-1.015345	0.279483	-3.632938	0.0010
D(OPEN(-1),2)	-0.031048	0.191465	-0.162159	0.8723

R-squared	0.500501	Mean dependent var	1.232812
Adjusted R-squared	0.483851	S.D. dependent var	23.35931
S.E. of regression	16.78214	Akaike info criterion	8.538969
Sum squared resid	8449.208	Schwarz criterion	8.630578
Log likelihood	-134.6235	Durbin-Watson stat	1.922611

ADF Test Statistic	-3.357155	1% Critical Value*	-2.6369
		5% Critical Value	-1.9517
		10% Critical Value	-1.6213

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EXCR,2)
Method: Least Squares
Date: 08/18/15 Time: 10:02
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXCR(-1))	-0.754344	0.224697	-3.357155	0.0022
D(EXCR(-1),2)	-0.003962	0.182573	-0.021703	0.9828

R-squared	0.378682	Mean dependent var	-0.001041
Adjusted R-squared	0.357972	S.D. dependent var	17.64925
S.E. of regression	14.14176	Akaike info criterion	8.196603
Sum squared resid	5999.681	Schwarz criterion	8.288211
Log likelihood	-129.1456	Durbin-Watson stat	2.001412

ADF Test Statistic	-3.357155	1% Critical Value*	-2.6369
		5% Critical Value	-1.9517
		10% Critical Value	-1.6213

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EXCR,2)
Method: Least Squares
Date: 08/18/15 Time: 10:03
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXCR(-1))	-0.754344	0.224697	-3.357155	0.0022
D(EXCR(-1),2)	-0.003962	0.182573	-0.021703	0.9828

R-squared	0.378682	Mean dependent var	-0.001041
Adjusted R-squared	0.357972	S.D. dependent var	17.64925
S.E. of regression	14.14176	Akaike info criterion	8.196603
Sum squared resid	5999.681	Schwarz criterion	8.288211
Log likelihood	-129.1456	Durbin-Watson stat	2.001412

ADF Test Statistic	-0.107148	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FDI)
Method: Least Squares
Date: 08/18/15 Time: 10:04
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	-0.008315	0.077600	-0.107148	0.9154
D(FDI(-1))	-0.054460	0.192399	-0.283060	0.7790

R-squared	-0.021618	Mean dependent var	95103.15
Adjusted R-squared	-0.054573	S.D. dependent var	603397.6
S.E. of regression	619643.6	Akaike info criterion	29.57037
Sum squared resid	1.19E+13	Schwarz criterion	29.66107
Log likelihood	-485.9111	Durbin-Watson stat	2.018367

ADF Test Statistic	-8.336342	1% Critical Value*	-2.6369
		5% Critical Value	-1.9517
		10% Critical Value	-1.6213

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FDI,2)
Method: Least Squares
Date: 08/18/15 Time: 10:05
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FDI(-1))	-1.776765	0.213135	-8.336342	0.0000
D(FDI(-1),2)	0.658811	0.145070	4.541339	0.0001

R-squared	0.714996	Mean dependent var	22417.53
Adjusted R-squared	0.705496	S.D. dependent var	893676.9
S.E. of regression	484982.4	Akaike info criterion	29.08207
Sum squared resid	7.06E+12	Schwarz criterion	29.17368
Log likelihood	-463.3132	Durbin-Watson stat	1.528890

ADF Test Statistic	-1.853183	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(INF)
Method: Least Squares
Date: 08/18/15 Time: 10:06
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF(-1)	-0.214167	0.115567	-1.853183	0.0734
D(INF(-1))	0.045149	0.179690	0.251259	0.8033

R-squared	0.103203	Mean dependent var	0.127197
Adjusted R-squared	0.074275	S.D. dependent var	16.58666
S.E. of regression	15.95880	Akaike info criterion	8.436589
Sum squared resid	7895.179	Schwarz criterion	8.527287

Log likelihood	-137.2037	Durbin-Watson stat	1.998585

ADF Test Statistic	1.447563	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RGDP)
Method: Least Squares
Date: 08/18/15 Time: 11:32
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RGDP(-1)	0.029753	0.020554	1.447563	0.1578
D(RGDP(-1))	-0.049224	0.209808	-0.234617	0.8160

R-squared	-0.026784	Mean dependent var	15048.56
Adjusted R-squared	-0.059906	S.D. dependent var	43981.72
S.E. of regression	45279.94	Akaike info criterion	24.33781
Sum squared resid	6.36E+10	Schwarz criterion	24.42850
Log likelihood	-399.5738	Durbin-Watson stat	1.185758

ADF Test Statistic	-2.147341	1% Critical Value*	-2.6369
		5% Critical Value	-1.9517
		10% Critical Value	-1.6213

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RGDP,2)
Method: Least Squares
Date: 08/18/15 Time: 11:33
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RGDP(-1))	-0.595621	0.277376	-2.147341	0.0400
D(RGDP(-1),2)	0.049215	0.199545	0.246634	0.8069

R-squared	0.118703	Mean dependent var	-6191.673
Adjusted R-squared	0.089326	S.D. dependent var	48541.33
S.E. of regression	46322.62	Akaike info criterion	24.38511
Sum squared resid	6.44E+10	Schwarz criterion	24.47672
Log likelihood	-388.1618	Durbin-Watson stat	1.206901

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PP Test Statistic	-1.301117	1% Critical Value*	-2.6321
		5% Critical Value	-1.9510
		10% Critical Value	-1.6209

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)	
3	
Residual variance with no correction	5.67E+11
Residual variance with correction	4.60E+11

Phillips-Perron Test Equation
Dependent Variable: D(NETEXP)
Method: Least Squares
Date: 08/25/15 Time: 19:25
Sample(adjusted): 1981 2014
Included observations: 34 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NETEXP(-1)	-0.150100	0.100698	-1.490600	0.1456

R-squared	0.058693	Mean dependent var	53135.39
Adjusted R-squared	0.058693	S.D. dependent var	787926.2
S.E. of regression	764453.8	Akaike info criterion	29.96068
Sum squared resid	1.93E+13	Schwarz criterion	30.00557
Log likelihood	-508.3316	Durbin-Watson stat	1.714492

PP Test Statistic	-5.235949	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)	
3	
Residual variance with no correction	6.23E+11
Residual variance with correction	3.58E+11

Phillips-Perron Test Equation
Dependent Variable: D(NETEXP,2)
Method: Least Squares
Date: 08/25/15 Time: 19:27
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(NETEXP(-1))	-0.958218	0.183066	-5.234288	0.0000

R-squared	0.460643	Mean dependent var	36334.38
Adjusted R-squared	0.460643	S.D. dependent var	1091166.
S.E. of regression	801362.3	Akaike info criterion	30.05585
Sum squared resid	2.05E+13	Schwarz criterion	30.10120

Log likelihood	-494.9215	Durbin-Watson stat	1.901451

PP Test Statistic	1.456568	1% Critical Value*	-2.6321
		5% Critical Value	-1.9510
		10% Critical Value	-1.6209

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	3.28E+09
Residual variance with correction	2.93E+09

Phillips-Perron Test Equation
Dependent Variable: D(RGDP)
Method: Least Squares
Date: 08/18/15 Time: 11:34
Sample(adjusted): 1981 2014
Included observations: 34 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RGDP(-1)	0.027599	0.020576	1.341337	0.1890

R-squared	-0.087874	Mean dependent var	21062.00
Adjusted R-squared	-0.087874	S.D. dependent var	55724.89
S.E. of regression	58121.73	Akaike info criterion	24.80744
Sum squared resid	1.11E+11	Schwarz criterion	24.85233
Log likelihood	-420.7264	Durbin-Watson stat	1.148748

PP Test Statistic	-5.233099	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	2.06E+09
Residual variance with correction	2.64E+09

Phillips-Perron Test Equation
Dependent Variable: D(RGDP,2)
Method: Least Squares
Date: 08/18/15 Time: 11:35
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RGDP(-1))	-0.859149	0.166416	-5.162656	0.0000

R-squared	0.429676	Mean dependent var	-12786.81
Adjusted R-squared	0.429676	S.D. dependent var	60975.33
S.E. of regression	46048.44	Akaike info criterion	24.34261

Sum squared resid	6.79E+10	Schwarz criterion	24.38796
Log likelihood	-400.6531	Durbin-Watson stat	1.112257

PP Test Statistic	-1.825564	1% Critical Value*	-2.6321
		5% Critical Value	-1.9510
		10% Critical Value	-1.6209

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	232.6849
Residual variance with correction	201.8534

Phillips-Perron Test Equation
Dependent Variable: D(INF)
Method: Least Squares
Date: 08/18/15 Time: 10:07
Sample(adjusted): 1981 2014
Included observations: 34 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF(-1)	-0.204856	0.105856	-1.935236	0.0616

R-squared	0.101910	Mean dependent var	0.058750
Adjusted R-squared	0.101910	S.D. dependent var	16.33829
S.E. of regression	15.48341	Akaike info criterion	8.346386
Sum squared resid	7911.287	Schwarz criterion	8.391279
Log likelihood	-140.8886	Durbin-Watson stat	1.927625

PP Test Statistic	-6.245409	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	265.7525
Residual variance with correction	169.0705

Phillips-Perron Test Equation
Dependent Variable: D(INF,2)
Method: Least Squares
Date: 08/18/15 Time: 10:08
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INF(-1))	-1.062542	0.176383	-6.024074	0.0000

R-squared	0.531404	Mean dependent var	0.058580
Adjusted R-squared	0.531404	S.D. dependent var	24.18362

S.E. of regression	16.55468	Akaike info criterion	8.481049
Sum squared resid	8769.834	Schwarz criterion	8.526397
Log likelihood	-138.9373	Durbin-Watson stat	2.013126

PP Test Statistic	0.564198	1% Critical Value*	-2.6321
		5% Critical Value	-1.9510
		10% Critical Value	-1.6209

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	3.51E+11
Residual variance with correction	1.74E+11

Phillips-Perron Test Equation
Dependent Variable: D(FDI)
Method: Least Squares
Date: 08/18/15 Time: 10:08
Sample(adjusted): 1981 2014
Included observations: 34 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	-0.015013	0.071722	-0.209327	0.8355

R-squared	-0.023375	Mean dependent var	92102.80
Adjusted R-squared	-0.023375	S.D. dependent var	594442.4
S.E. of regression	601349.8	Akaike info criterion	29.48071
Sum squared resid	1.19E+13	Schwarz criterion	29.52560
Log likelihood	-500.1721	Durbin-Watson stat	2.045740

PP Test Statistic	-6.262424	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	3.61E+11
Residual variance with correction	1.77E+11

Phillips-Perron Test Equation
Dependent Variable: D(FDI,2)
Method: Least Squares
Date: 08/18/15 Time: 10:09
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FDI(-1))	-1.060747	0.180382	-5.880544	0.0000

R-squared	0.519073	Mean dependent var	21924.60

Adjusted R-squared	0.519073	S.D. dependent var	879606.9
S.E. of regression	609997.7	Akaike info criterion	29.51013
Sum squared resid	1.19E+13	Schwarz criterion	29.55548
Log likelihood	-485.9172	Durbin-Watson stat	2.028905

PP Test Statistic	1.037276	1% Critical Value*	-2.6321
		5% Critical Value	-1.9510
		10% Critical Value	-1.6209

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	178.3388
Residual variance with correction	229.5956

Phillips-Perron Test Equation
Dependent Variable: D(EXCR)
Method: Least Squares
Date: 08/18/15 Time: 10:09
Sample(adjusted): 1981 2014
Included observations: 34 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXCR(-1)	0.033928	0.026051	1.302339	0.2018

R-squared	-0.072742	Mean dependent var	4.610750
Adjusted R-squared	-0.072742	S.D. dependent var	13.08753
S.E. of regression	13.55518	Akaike info criterion	8.080386
Sum squared resid	6063.519	Schwarz criterion	8.125279
Log likelihood	-136.3666	Durbin-Watson stat	1.647780

PP Test Statistic	-4.444055	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	181.8114
Residual variance with correction	190.4003

Phillips-Perron Test Equation
Dependent Variable: D(EXCR,2)
Method: Least Squares
Date: 08/18/15 Time: 10:10
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXCR(-1))	-0.757345	0.171493	-4.416180	0.0001

R-squared	0.378673	Mean dependent var	-0.002800
Adjusted R-squared	0.378673	S.D. dependent var	17.37130
S.E. of regression	13.69281	Akaike info criterion	8.101453
Sum squared resid	5999.775	Schwarz criterion	8.146802
Log likelihood	-132.6740	Durbin-Watson stat	2.001923

Date: 08/25/15 Time: 19:53
Sample: 1980 2014
Included observations: 35
Correlations are asymptotically consistent approximations

RGDP,NETEXP(-i)	RGDP,NETEXP(+i)	i	lag	lead
. |****** |	. |****** |	0	0.5599	0.5599
. |****** |	. |***** |	1	0.5546	0.5234
. |****** |	. |***** |	2	0.6272	0.4551

PP Test Statistic	-0.561183	1% Critical Value*	-2.6321
		5% Critical Value	-1.9510
		10% Critical Value	-1.6209

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	250.5036
Residual variance with correction	272.9680

Phillips-Perron Test Equation
Dependent Variable: D(OPEN)
Method: Least Squares
Date: 08/18/15 Time: 10:11
Sample(adjusted): 1981 2014
Included observations: 34 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OPEN(-1)	-0.026886	0.053135	-0.506001	0.6162

R-squared	0.004821	Mean dependent var	0.854412
Adjusted R-squared	0.004821	S.D. dependent var	16.10419
S.E. of regression	16.06532	Akaike info criterion	8.420174
Sum squared resid	8517.121	Schwarz criterion	8.465067
Log likelihood	-142.1430	Durbin-Watson stat	1.955098

PP Test Statistic	-5.676939	1% Critical Value*	-2.6344
		5% Critical Value	-1.9514
		10% Critical Value	-1.6211

*MacKinnon critical values for rejection of hypothesis of a unit root.

Lag truncation for Bartlett kernel: (Newey-West suggests: 3)
3

Residual variance with no correction	259.5232
Residual variance with correction	293.3631

Phillips-Perron Test Equation
Dependent Variable: D(OPEN,2)
Method: Least Squares
Date: 08/18/15 Time: 10:11
Sample(adjusted): 1982 2014
Included observations: 33 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(OPEN(-1))	-1.049137	0.185960	-5.641738	0.0000

R-squared	0.497936	Mean dependent var	0.865152
Adjusted R-squared	0.497936	S.D. dependent var	23.08823
S.E. of regression	16.35950	Akaike info criterion	8.457329
Sum squared resid	8564.266	Schwarz criterion	8.502678
Log likelihood	-138.5459	Durbin-Watson stat	1.883375

ADF Test Statistic	-4.433958	1% Critical Value*	-2.6369
		5% Critical Value	-1.9517
		10% Critical Value	-1.6213

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(INF,2)
Method: Least Squares
Date: 08/18/15 Time: 10:06
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INF(-1))	-1.173508	0.264664	-4.433958	0.0001
D(INF(-1),2)	0.104401	0.181533	0.575107	0.5695

R-squared	0.536397	Mean dependent var	-0.008340
Adjusted R-squared	0.520944	S.D. dependent var	24.56748
S.E. of regression	17.00410	Akaike info criterion	8.565248
Sum squared resid	8674.182	Schwarz criterion	8.656856
Log likelihood	-135.0440	Durbin-Watson stat	2.067761

Cointegration

Date: 08/25/15 Time: 19:56
Sample: 1980 2014
Included observations: 32
Test assumption:
No deterministic

trend in the data

Series: RGDP NETEXP OPEN EXCR FDI INF

Lags interval: 1 to 2

Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.844172	124.5567	82.49	90.45	None **
0.658491	65.06874	59.46	66.52	At most 1 *
0.454064	30.68852	39.89	45.58	At most 2
0.186455	11.32038	24.31	29.75	At most 3
0.124146	4.717059	12.53	16.31	At most 4
0.014742	0.475272	3.84	6.51	At most 5

*(**) denotes rejection of the hypothesis at 5%(1%) significance level

L.R. test indicates 2 cointegrating equation(s) at 5% significance level

UnnormalizedCointegrating Coefficients:

RGDP	NETEXP	OPEN	EXCR	FDI	INF
-4.11E-07	-3.48E-07	-0.009699	-0.005347	6.41E-07	0.023548
3.23E-07	-3.05E-07	0.002703	-0.003769	4.10E-07	-0.009249
2.04E-07	2.53E-07	-0.001228	-0.005835	9.50E-08	0.001499
3.33E-06	1.65E-07	-0.013853	-0.010969	-2.77E-07	0.004774
1.57E-06	1.19E-08	-0.010954	-0.003800	4.34E-08	0.003416
4.03E-07	-2.59E-07	-0.003539	0.000596	5.15E-07	0.010588

Normalized Cointegrating Coefficients: 1 Cointegrating Equation(s)

RGDP	NETEXP	OPEN	EXCR	FDI	INF
1.000000	0.847374	23606.36	13012.69	-1.559909	-57311.25
	(0.56880)	(19439.2)	(11220.6)	(1.05566)	(40603.9)
Log likelihood	-1632.573				

Normalized Cointegrating Coefficients: 2 Cointegrating Equation(s)

RGDP	NETEXP	OPEN	EXCR	FDI	INF
1.000000	0.000000	16398.30	1330.210	-0.220759	-43749.20

		(16746.6)	(4485.67)	(0.21175)	(36077.4)
0.000000	1.000000	8506.347	13786.68	-1.580353	-16004.79
		(19350.3)	(5183.09)	(0.24467)	(41686.6)
Log likelihood	-1615.383				

Normalized Cointegrating Coefficients: 3 Cointegrating Equation(s)

RGDP	NETEXP	OPEN	EXCR	FDI	INF
1.000000	0.000000	0.000000	-22073.67	1.095823	-8464.707
			(50142.6)	(2.90551)	(5365.94)
0.000000	1.000000	0.000000	1646.303	-0.897399	2298.452
			(30353.2)	(1.75881)	(3248.21)
0.000000	0.000000	1.000000	1.427214	-8.03E-05	-2.151716
			(2.83666)	(0.00016)	(0.30356)
Log likelihood	-1605.699				

Normalized Cointegrating Coefficients: 4 Cointegrating Equation(s)

RGDP	NETEXP	OPEN	EXCR	FDI	INF
1.000000	0.000000	0.000000	0.000000	-0.220148	-7726.759
				(0.06286)	(1336.64)
0.000000	1.000000	0.000000	0.000000	-0.799251	2243.414
				(0.17140)	(3644.53)
0.000000	0.000000	1.000000	0.000000	4.80E-06	-2.199430
				(7.4E-06)	(0.15652)
0.000000	0.000000	0.000000	1.000000	-5.96E-05	0.033431
				(1.3E-05)	(0.28501)
Log likelihood	-1602.397				

Normalized Cointegrating Coefficients: 5 Cointegrating Equation(s)

RGDP	NETEXP	OPEN	EXCR	FDI	INF
1.000000	0.000000	0.000000	0.000000	0.000000	-16061.87
					(11290.6)
0.000000	1.000000	0.000000	0.000000	0.000000	-28017.28
					(45268.1)
0.000000	0.000000	1.000000	0.000000	0.000000	-2.017738
					(0.36048)
0.000000	0.000000	0.000000	1.000000	0.000000	-2.223756
					(3.17823)
0.000000	0.000000	0.000000	0.000000	1.000000	-37861.33
					(54826.3)