**THE IMPACT OF COMMERCIAL BANK CREDIT ON NON-OIL EXPORT TRADE IN NIGERIA**

**BY**

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**UGWUOMU- NIKE, ENUGU.**

**JULY, 2017**

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**A RESEARCH PROJECT**

**PRESENTED TO THE DEPARTMENT OF ECONOMICS,**

**FACULTY OF MANAGEMENT AND SOCIAL SCIENCES,**

**GODFREY OKOYE UNIVERSITY, UGWUOMU NIKE, ENUGU**

**IN FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF SCIENCE [B.Sc.] DEGREE IN ECONOMICS**

**JULY, 2017**

**CERTIFICATION**

This is to certify that Nnaji, Caroline. O. an undergraduate student in the department of economics with registration number U13/mss/eco/018 under the supervision of Mr. Nwanji has successfully completed the research required for the Award of Bachelor of science (B.Sc.) degree in Economics in Godfrey Okoye University.

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**APPROVAL**

The research work title; “Impact of Commercial Bank Credit on Non-oil export trade in Nigeria has met the standard requirement in the Department o Economics, Godfrey Okoye University Enugu.

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**DEDICATION**

This work is dedicated to Almighty God whose grace was sufficient throughout my stay in this University and also to my lovely and irreplaceable Blessed Mother Mary who has always interceded on my behalf.

It is also dedicated to my family members, my late daddy Mr. Moses Nnaji and Rev. Msgr. Patrick, Ugwu.

**ACKNOWLEDGEMENT**

My gratitude goes to my supervisor Mr. P. M. Nwanji for his words of advice, and unflinching support and who with love moderated this research work.

I also express my deep sense of gratitude to my vice chancellor and entire teaching staffs of Economics department especially Mr. Odo and Mr. Okorie whose teaching remain a source of inspiration to me.

I also express my appreciation to my beloved friends and colleagues, Maureen, Tochi, Amarachi, Nancy, Ashley, Doris, Fausta-mary,Chidimma, Emmanuel, Mr. Uchenna, Chibuike, Ubasinachi, Mr. Samuel, Ugochi, Johnpaul and others for their love, coporation, understanding and forbearance throughout the time- absorbing process required to complete my years in the university.

In a special way I am very grateful to my lovely mum who has made this possible, through her constant prayers and motherly advice which had sustained me and to my amiable siblings Mr. Osita, Mrs. Modesta, N.D. Bestie, Mrs. Amaka, Mrs. Chinwe, Chukwudi, Sunny, Onyinyechi, Chineche, Abuchi, Mmesoma and My Divine for unconditional love and moral support.

My gratitude also goes to my Beloved Daddy Rev. Msgr. Patrick, Ugwu for his financial supports, unending Fatherly care, Advice, encouragement, guidance and unceasing prayers throughout my stay in the university.

How can I forget my mentors Rev. Fr. Benjamin and Rev.Fr. Clement for their Fatherly advice, support and unquantifiable prayers.

Above all, the highest thanks goes to my Great God who is the Beginning and the Ending of my existence, who made my dream come through. I cannot thank him enough, thank you Jesus and thank you my precious Mother Mary.

May God Almighty bless and reward everyone abundantly.

**ABSTRACT**

This research work examined the impact of commercial bank credit (CBC) on Non-oil export trade in Nigeria. Four variables were used in the study. This study adopted the econometric time series analysis from 1992-2015 and the data were sourced from Central Bank of Nigeria statistical bulletin. The empirical analysis that were carried out to achieve the objectives include unit root, co-integration, the long run regression model and short run error correction model. The Augmented Dickey Fuller was employed in conducting the test of unit root and the variables became stationary at first difference. The co-integration test result reveals the existence of long-run relationship among the variables. Then long run regression and short-run error model was conducted and it discovered that CBC has a direct and positive significant impact on non-oil export, it also reveals that there exist a positive and significant relationship between real exchange rate and non-oil export and significant relationship among real interest rate and non-oil export. Further, the Central Bank of Nigeria should as an operational guideline, impose on commercial banks to set aside a certain amount of money from their yearly profit for financing of non-oil export as it is the case for small and medium scale equity scheme.

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**CHAPTER ONE**

**1.0 INTRODUCTION**

**1.1 Background to the study**

The growth of any economy is a function of the quality and quantity of goods and services it produces. There is always a tendency to produce and market to earn a living. In the wider society, the quality of life enjoyed very much depends on the quality of goods and services available to the citizenry. There is the development aspect of growth that enables equitable distribution. This entails getting products from one part to the other (Nzotta, 2004).

Production in one country could be transported to another to enhance quality of life. Developing nations have the tendency to import greater part of their goods and services from developed nations. To square up with the developed nations, they have to increase production of exportable goods (Gbosi,1994).

Nigerian economy has depended predominantly on crude oil since the discovering of crude oil in the early fifties. Prior to this, cash crops like cocoa, palm produce, cotton, groundnut and cassava has been the mainstay of the economy. These cash crops earned so much foreign reserve of the economy.

Nigerian Bauxite is the best in the world and are sought for globally. (Soludo, 2009).

One would have expected a balance of payment that tilts to the favor of local production. This, however, is not the case with Nigeria as imports far outweigh exports. Export financing is a means of helping local producers process their products for a better market abroad. It is designed to make funds available for local producers to seek for market abroad. The essence of every productive business is to sell to a wider range of customers to reduce cost and continue in business. Oftentimes, it is propelled by the desire to increase the market share, and thus, the clientele. According to Nigerian Export Promotion Council (2009:12), export financing makes fund available for exporters to process their goods for export. It notes that in Nigeria, there are many opportunities to explore for exports created by government, noting that there could be logistics that may hinder continuity. Nigerian Export –Import Bank (NEXIM, 2008) notes that a lot of exporters do not want to take the risk of assessing funds from NEXIM due probably to high interest rate. But it states that the risk involved in export financing is such as to secure the financier’s investment while monetizing the exporter.

The roles of commercial banks in our modern economy cannot be over emphasized; Commercial banks in Nigeria as a financial institution helps in financing the exporting sector of the economy, by lending out short-term loans to those into manufacturing, exporting, trading and industries.

Lack of bank credit (loan and advances) in our economy has brought about low rate of economic growth and diversification of most industries in Nigeria. The availability of bank credits to those in trade determines what is produced and how much of that product is produced. Therefore, commercial banks perform their important role of financial assistance by rendering important services such as granting (loans and advances) to various sectors of the Nigerian economy. Commercial banks support the economy by serving the credit needs of their customers and providing a safe place for their cash balance. Of individual credit activities on the export sector of the Nigerian economy, there are general statements which guide or channel actions in decision making about the export sector advance and investment of commercial bank.

The importance of export trade to economic growth cannot be overemphasized, this trade goes beyond the national boundaries of moving goods from a country to another in order to earn foreign exchange. Export are the goods and services which a country sends to other countries abroad in return for some payment made in foreign exchange.

According to Chartered Institute of Bankers of Nigeria – CIBN(2008), export financing enables businesses to take their products all over the world, by enabling the exporter get to many places round the globe to market his products. There are a lot of benefits to a business selling overseas, but there can be a lot of financial risks involved as well. It is important to understand the risks and government regulations before selling overseas. According to International Monetary Fund (2007), export credit scheme aids export financing and boosts a country’s Balance of Payment. It notes that if done right, it can be profitable and can sometimes bring a business more profit than selling within the country. Export financing, notes Soludo (2009) is loan meant for shipping of products outside a country or region. If you have a product that is good, appealing to another country, and has great potential to sell, you could also consider a venture capitalist to help bring your business where it needs be. “CBN greatly encourages venture capital as export finance. There are also some creative methods of export financing. One of such methods is utilizing a factoring house overseas. Basically the factoring house will purchase the exported products at a discount below invoice value. The factor sells the products at a higher margin. This ensures that the exporter receives his money upfront, which reduces the risk greatly” (McJones, 2010).

According to International Development Agency (2010), funds are provided to developing countries to help them purchase United States goods and services. Mc Jones (2010) observes that IDA services are no longer highly operational in Nigeria, but there are Export Assistance Centers, EAC, that offer technical assistance to exporters of which the Nigerian Version is Export Processing Zone (EPZ). This research work looks at the impact of bank credit on export trade in Nigeria.

**1.2 Statement of problem**

Export financing through bank credit is the prime mover of the economy of industrialized nations. Goods are produced for consumption both locally and internationally. Export financing is, therefore, a key factor in any successful international trade. Exporters naturally would want to get paid as quickly as possible, while importers usually prefer to delay payment until they have received or sold the goods. Because of the intense competition for export markets, being able to offer attractive payment terms customary in trade is often necessary to make a sale. In many cases, bank credit in export financing for small and medium scale business are not easily accessed by exporters themselves. It is either that the conditions given to exporters are too high for them from various finance sources or they are not willing to take risk associated with the finance sources. Therefore, the unavailability or the lack of commercial bank credit to exporters poses a great threat to the growth of non oil export in Nigeria which this work tends to solve.

**1.3 Research Questions**

i. What is the impact of Commercial bank credit on Non-oil export trade in Nigeria?

ii. To what extent does exchange rate have effect on Non-oil export trade in Nigeria?

iii. What impact does interest rate have on Non-oil export trade in Nigeria?

**1.4 Objectives of the study**

The main objective of this research is to investigate the relationship impact of commercial bank credit on non-oil export trade in Nigeria. To achieve this, the following specific objectives were formulated as follows:

(i) To examine the impact of commercial bank credit on non-oil export trade in Nigeria

(ii) To what extent does Interest rate have effect on Non-oil export in Nigeria

(iii)To examine the impact of exchange rate on non oil export trade in Nigeria.

**1.5 Hypothesis of the study**

Based on the objectives of the study, the following research hypothesis are formulated:

H0: Bank credit has no significant impact on export trade in Nigeria.

H1: Bank Credit has significant impact on export in Nigeria.

H0: Interest rate has no significant impact on export in Nigeria.

H1: Interest rate has significant impact on export in Nigeria.

H0: Exchange rate has no significant impact on Nigeria’s export trade

H1: Exchange rate has significant impact on Nigeria’s export trade

1.6 Significance of the study

The study is significant in a number of ways as follows:

1. To policy makers and regulators of the export financing, it will present a scheme, through its analysis that could assist them in enunciating policies and reforms that will positively impact on the performance in the light of globalization.

2. To economic watchers and the interested public, it will provide some insight into the performance of export business.

3. To investors in general, it will expose the relationship existing between relevant variable used in the study.

4. To students, the research will assist those who wish to take a career in economics banking and finance to advance their understanding of the concept and mechanism of export financing and it’s inter-relationship with the financial markets of nations of the world.

5. Finally, the research work will serve as a reference material for future researchers on similar topic by providing them with some index of and the Nigerian sources of business finance, export finance.

**1.7 Scope and Limitations of the study**

The scope of this study covers the Nigerian economy and will only review the impact of Bank Credit on Nigerian export trade. This study covers the quarterly data for the period of 1992-2015.

**1.8 Definition of Terms**

BANK CREDIT: Bank credit is aggregate amount of credit available to a person or business from a banking institution. It is also the total amount of funds financial institutions provide to an individual or business.

EXPORT TRADE: Export Trade is a function of international trade whereby goods produced in a country are shipped to another country for future sale or trade. This is also the exchange of capital, goods and services across international borders or territories or among nations of the world.

EXCHANGE RATE: This is the rate at which one currency trades against another on the foreign exchange market. Currencies are being continuously traded on the foreign exchange markets, with the prices constantly changing as dealers adjust to changes in supply and demand.

INTEREST RATE: According to Fuller (1990), Interest rate is the factor reward or earning of capital. Fuller opined that this source of finance will only be available if other people are willing to forgo current consumption and provide a pool of financial resources from which loans can be advanced.

**CHAPTER TWO**

**2.0 LITERATURE REVIEW**

**2.1 Conceptual Literature**

This research is based on the concept that; achieving higher export trade in Nigeria, requires rapid and more broad inflow of Bank credits.

**2.1.1 Bank Credit**

Bank credit is the aggregate amount of credit available to a person or business from a banking institution. It is the total amount of funds financial institutions provide to an individual or business. A business or individual’s bank credit depends on the borrower’s ability to repay and the total amount of credit available in the banking institution.

Bank credit for individuals has grown immensely over the past 50 years, as consumers have become accustomed to having multiple credit cards.

Bank credit is an agreement between banks and borrowers where banks trust a borrower to repay funds plus interest for either a loan, credit card or line of credit at a later date. It is money banks lend or have already lent to customers.

Bank credit is the total borrowing capacity banks provide to borrowers. It allows borrowers to buy goods or services. However, it requires a fixed minimum monthly payment for a specified period. For example, the most common form of bank credit is a bank credit card. Borrowers start with a zero balance and use the card to make transactions. The borrower pays off the balance and borrows again until the credit limit is reached.

**2.1.2** **Commercial Banks**

Commercial banks are those banks which perform all kinds of banking functions such as accepting deposits, advancing loans (short term & long term) credit creation and agency functions.

Since the attainment of independence in 1960, Commercial banks in Nigeria have been playing an important role in development process of a nation. The banks in collaboration with other financial institutions have been mobilizing the scarce domestic resources for rapid social, economic and industrial transformation of the country.

Other services provided by the commercial banks includes facilities for safe keeping of imported documents, provision of advice to customers on insurance and investment matters and provision of cash for bulk payment of non-customers salaries and wages, Umole (1985).

**The Role of Commercial Banks in Export Trade (Non-oil) Export**

**a. Pooling of Savings**

Commercial banks perform this very important function to all sector of the economy by making available the facilities for the pooling of savings through the acceptance of deposits from the public and then making these funds available for economically and socially desirable purpose.

Commercial banks receive deposits from exporters through savings account on which the banks pay small interest to the deposits. These deposits are allowed to withdraw their money upon presentation of their savings account passbooks.

The use of fixed or time deposit accounts by exporters has also improved the saving habit of the exporters likewise use of cheque books (through the current account) to settle their obligations without necessarily holding cash is made possible.

**b. Extension of Credit**

Extension of credit facilities by commercial banks is very important to the economy, most importantly, the export trade sector, for it makes possible the financing of the exportation activities of a nation. Indirect or found about production as against direct production where consumable goods are secured by the direct application of labour to land or natural wealth is made possible through the extension of these credit facilities which is usually short term since commercial banks belong to the money market. Also bank credits make possible production for inventory. For instance, in the food industry, if Nigeria cannot consume all the food that is harvested and processed immediately bank credits to carriers would enable them purchase, process and store the food which may later time be sold to retailers and ultimately consumers across the borders of the country.

**Export Trade**

EXPORT TRADE: An export is a function of international trade whereby goods produced in one country are shipped to another country for future sale or trade. The sale of such goods adds to the producing nation’s gross output. If used for trade, exports are exchanged for other products or services in other countries.

Exports are one of the oldest forms of economic transfer and occur on a large scale between nations that have fewer restrictions on trade, such as tariffs or subsidies. Most of the largest companies operating in advanced economies derive a substantial portion of their annual revenues from exports to other countries. The ability to export goods helps an economy to grow, by selling more overall goods and services. One of the core functions of diplomacy and foreign policy within governments is to foster economic trade in ways that benefit both parties involved.

Exports are a crucial component of a country’s economy. Not only do exports facilitate international trade, they also stimulate domestic economic activity by creating employment, production and revenues. As of 2014, the world’s largest exporting countries in terms of dollars are China, the United States, Germany, Japan and the Netherlands. China has exports of approximately $2.3 trillion, primarily exporting electronic equipment and machinery. The United States exports approximately $1.6 trillion, primarily exporting capital goods. Germany has exports of approximately $1.5 trillion, primarily exporting motor vehicles. Japan has exports of approximately $684 billion, primarily exporting motor vehicles. Finally, the Netherlands has exports of approximately $672 billion, primarily exporting machinery and chemicals.

**2.1.3 The concept of Bank Credit**

According to Nwanyanwuo (2010), credit is the money from the lender to the borrower. For money Spencer (1977) noted that credit implies a promise by one party to pay another borrowed or goods and services received. Credit cannot be divorced from the banking sector as banks serve as a conduit for funds to be received in form of deposits from the surplus unit of the economy and passed on to the deficit units which need funds for productive purposes. The CBN (2015) succinctly conveyed a more comprehensive definition of credit, it defines credit 7facility as the aggregate of all loans, advances, overdrafts, commercial papers, banker’s acceptances, bill discounted, leases, guarantees and other loss contingencies connected with a bank´s credit risks. Mandel (1979) described credit simply as the right of a lender to receive money in the future in return for his obligation to transfer the use of funds to another party in the interim. The facility is as old as man, though in the primitive society, it was known as mutual aid, because it was based on ancient custom of ensuring substance of all members of the community. Credit therefore arises out of the need to bridge the gap between the surplus and deficit economic units such that the highest level of satisfactory function is performed by the financial institutions notable among which are the money-deposit banks. Credit channels savings into productive investments thereby encouraging economic growth. Thus, the availability of credit allows the role of intermediation to be carried out, which is important for the growth of the economy.

**2.1.4 The concept of Export Trade (Non-oil Export)**

Non-oil exports are products, which are produced within the country in the agricultural, mining, quarrying and industrial sector that are sent outside the country to generate revenue for the growth of the economy, excluding oil products. These non-oil exports include products like coal, cotton, timber, groundnut, cocoa, beans, palm kernel, palm oil, hides, skin, cattle, etc. Non-oil export sector in Nigeria constitutes products of agriculture, industry and services that are exported by Nigeria. Agriculture is the primary non-oil product sector, which provides food, and fiber for the economy, while industry, as the modern sector, produces manufactured goods. The non-oil export sector with its Nigerian economy, which is dominated by agriculture, played significant roles in the economy before the advent of crude oil. It contributed largely to Nigeria’s Gross Domestic Product (GDP) and it was also the primary source of foreign exchange.

**2.2 Theoretical Literature**

**2.2.1 The Quality Theory of Credit**

Wemer (1993) in his work towards a quantity theory of disaggregated credit and international capital flows presented the quantity theory of credit with a central focus on different equation of exchange distinguishing between money used for GDP transactions and money used for non-GDP transactions, he further stressed that money should not be defined as bank deposits or other aggregates of private sector savings. More so, that bank should not be seen as not being financial intermediaries that lead existing money, rather creators of new money through the process of lending. In addition, growth of GDP requires increased transaction in economic activities, which in turn require larger amount of money to be used for such transaction; therefore, the money used for transactions can only rise if banks create more credits. Consequently, the effect of bank credit depends on its quantity and quality which is defined as whether it is used for unproductive transactions (credit for consumption or asset transactions, producing unsustainable consumer or asset inflation, respectively) or productive transactions (delivering non-inflationary growth). Credit used for productive transactions aims at income growth and sustainable; credit for asset transactions aims at capital gains and is unsustainable (Wemer,1993).

**2.2.2 The Credit Channel Theory**

Bernanke and Gerver (1995) postulated the credit channel theory. This theory emphasized that the direct effects of monetary policy on interest rates are amplified by endogenous changes in the external finance premium. They described external finance premium as the difference between the cost of funds raised externally and funds raised internally by the borrower. More so, the imperfection of credit market depends on the size of the finance premium and a change in monetary policy that raises or lowers open market interest rates tends to change external finance premium through ‘’Balance Sheet Credit Channel’’ and ‘’Banking Lending Credit Channel’’.

**2.2.3 The Balance Sheet Credit Channel Theory**

The Theory stressed that the external finance premium facing a borrower depends as borrowers’ financial position. Therefore, the greater is the borrower’ net worth, the lower the external finance premium and overall terms of credit. The theory further stated that the quality of borrowers’ balance sheet similarly affects their investment and spending decisions. This balance sheet channel arose due to shifts from central bank’s policy not only affects market interest rate but also the financial positions of borrowers (Bernanke and Gertler, 1995).

**2.2.4 The Bank Credit Channel Theory**

The banking lending channel stated that monetary policy also affects the external finance premium by shifting the supply of the intermediated credit, especially loans from commercial banks. It indicated that if supply of bank loans is disrupted for reason, bank dependent borrower may not be necessarily shut off but incur cost of finding lenders. Therefore, a reduction in the supply relative to other forms of credit is most likely to increase external finance premium and reduce real activity (Bernanke and Gertler, 1995).

**2.2.5 Theory of Comparative Advantage**

The theory of comparative advantage states that the country that is better at producing a particular good or service will become more successful by focusing on that industry. A country's comparative advantage is the compilation of the inherent qualities that make it better will increase its competitiveness in the global marketplace. In other words, it is the competitive advantage of that country. This theory of comparative advantage became the rationale for free trade agreements. It explained why trade protectionism does not work in the long run. This is important because political leaders are always under a lot of pressure from their local constituents to preserve jobs by raising tariffs. This will temporarily protect these local industries from overseas competition. However, it will hurt the nation in the long run by making it less competitive and forcing consumers to pay higher prices to buy lower-quality goods.

The Export-led growth hypothesis postulates that export expansion is a key factor in promoting long-run economic growth. Several arguments can be theoretically put forward to justify the export-led growth hypothesis. From a demand side perspective, it can be argued that sustained demand growth cannot be maintained in small domestic markets, since any economic impulse -based on the expansion of domestic demand is bound to be exhausted quickly. Export markets, in contrast, are almost limitless and hence do not involve growth restrictions on the demand side. Herzer, Lehmann , and Siliverstovs. (2004) noted that exports can be a catalyst for income growth as a component of aggregate demand.

**2.3 Empirical Literature**

The concept of Bank Credit has attracted some attention to the extent of culminating into some researchers carrying out studies to evaluate its impact on the level of the economy export trade. Some studies which have been carried out on the concept of Bank Credit will be reviewed in this section.

Anyene, Elechi, Ezu and Ananwude (2016) examined the contribution of the Nigerian banks to the promotion of non- oil exports. Their study adopted econometric time series analysis to examine the contribution of Nigerian banks credit in relation to non-oil exports performance, assess the presence of causal relationship between Nigerian banks credit and non- oil exports performance as well as the direction of the causal relationship. The empirical analyses that were carried out to achieve the objectives include unit root, co-integration and granger causality test, in which changes in non-oil exports performance was regressed against commercial banks credit to non-oil exports, interest rate and inflation using annual series data for the period 1990-2013. The data were sourced from the Central Bank of Nigeria statistical bulletin .The result of the analysis showed that Nigerian banks have not adequately contributed toward the promotion of non-oil exports. The study also found that there is along run relationship between Nigerian banks credit to non-oil exports and the performance of non-oil exports.

Minetti and Zhu (2011) and Secchi *et al* (2012) made use of Italian firm-level data and proxy credit worthiness (z-score), respectively. They both use an IV strategy based on the 1936 reform of the banking system. They find that bank credit is an important determinant of export.

Del Prete and Fedrico (2013) use Italian bank firm matched data and find that the contribution of finance to trade is not limited to specific financing of export activities, but reflects a more general provision of credit to the exporting firm.

Oduwa (2010), conducted a research on the impact of commercial bank activities, on economic growth in Nigeria, the researcher adopted the multiple linear regression model, applying the ordinary least square (OLS) regression technique. He captured commercial bank activities with commercial bank credit (CBC) and interest (IR) and economic growth with gross domestic product (GDP), from his empirical result He discovered that commercial bank credit is positively related economic growth. The result conformed to economic prior criteria. The research however recommended that efforts should be made by the banking sector to improve the quality of services rendered to the public as this will help boost people’s confidence in this sector.

Nwanyawu (2009) examined the impact of bank credit on economic growth in Nigeria with the application of the ordinary least square (OLS) regression technique. Based on the finding of the study, it was observed that bank credit has not impacted significantly on the growth of the Nigerian economy. He attributed the outcome of the result to the fact that banks exhibit apathy in lending to the private sector for productive purposes, as they prefer to lend to the short-term end of the market, e.g commerce, which attract quick and high rate of turnover. As a result of this, the volume of loan actually given to investors is significant, He said that banks should be willing to give both short and long term loans for productive purposes, as this will eventually lead to economic growth, also that the regulatory body such as central bank of Nigeria (CBN) should adopt a direct credit control measures that will be beneficial to agriculture and manufacturing sectors.

**2.4 Gap in Literature**

Finally, from the empirical literature reviewed, most studies concluded that CBC has a positive impact on Non-oil export trade while some concluded that CBC have a negative and significant impact on Non-oil export trade. Thus, this work tends to investigate further CBC impact on Non-oil export trade using only four variables such as Non-oil export, commercial bank credit, official exchange rate and real interest rate covering a period of 1981-2015. This research also adopted a theoretical framework in it research methodology which other study do not.

**CHAPTER THREE**

**3.0 Research Methodology**

**3.1 Theoretical framework**

There are various literatures on the impact of commercial bank credit on non-oil export but this study will employ the comparative advantage theoretical framework.

The comparative advantage theory which was adopt by David Ricardo explains that the country which is better at producing a particular good or service will become more successful by focusing on that industry. A country's comparative advantage is the compilation of the inherent qualities that make it better will increase its competitiveness in the global marketplace that is it is the competitive advantage of that country. This theory of comparative advantage became the rationale for free trade agreements as it explained why trade protectionism does not work in the long run. In the long run trade protectionism leads to negative effect on the economy because it makes the economy less competitive and consumers are forced to purchase local goods at higher cost.

However, credits granted to industries will bring about improvement in the output of the local industries. Therefore, there is need for export-led growth which reveals that export expansion is a key factor in promoting long-run economic growth. Based from the demand side perspective, it can be argued that sustained demand growth cannot be maintained in small domestic markets, since any economic impulse -based on the expansion of domestic demand is bound to be exhausted quickly. Thus, granting credit to industries will lead to increase in productivity thereby, promoting export. It is worthy to note that exports can be a catalyst for income growth as a component of aggregate demand.

**3.2 Model Specification**

The Non-oil export is dependent variable and other variables above serves as the regressors. We formulate the equation with the above variables as follows:

NOE=f (CBC,OER,RIR)

Linear function NOE=β0+β1(CBC)+β2(OER)+β3(RIR)+µt

Where;

β0= the intercept term for the regression.

β1, β2 and β3= the regression co-efficients or parameters to be estimated

µt= the stochastic or the error term

NOE= non-oil export

CBC= commercial bank credit

OER= official exchange rate

RIR= real interest rate

**Description of variables**

The dependent variable is the Non-oil export while the independent variables commercial bank credit (CBC), real exchange rate and real interest rate. The above variables were selected based on the economic relationship that exists between the dependent and independent variables.

It can be described as follows:

**Non-oil export:**

These are products, which are produced within the country in the agricultural, mining, quarrying and industrial sector that are sent outside the country to generate revenue for the growth of the economy, excluding oil products.

**Commercial bank credit:**

Commercial banks are those banks which perform all kinds of banking functions such as accepting deposites, advancing loans (short term & long term) credit creation, Agency functions.

**Real exchange rate:**

This is the value of one country’s currency in terms of another currency, that is, the rate at which one currency exchanges for another.

**Real interest rate:**

Interest rate is the factor reward or earning of capital.

3.3 Method of Evaluation

The evaluation consists of deciding whether the parameter estimates are theoretically meaningful and statistically satisfactory. The evaluation of parameter estimates will comprise the following

3.3.1 Preliminary Tests

Unit root test

Since we are using time series data, it is imperative that we test for the stationarity properties of our variables and the order of which they are integrated to avoid spurious results. It is important to note that if the variables prove to be non-stationary after running the tests, the variables usage in the time series model will lead to a spurious result which is invalid and cannot be trusted. The study conducted the unit root test on the variables by employing the Augmented Dickey Fuller (ADF) The ADF approach has a restrictive assumption in respect of the error term by assuming that the error term is homoskedastic.

Co-integration

Having tested for stationarity properties of our variables, we employ a co-integrated test. In the concept of co-integration, all variables must be integrated of the same order and linear combination of non-stationarity variables (Gujarati & Dawn, 2009). It examines the long run relationship between our variables as well as the dynamics and the error correction in the short run.

Economic Criteria

This is determined by the principles of the economic theory and refer to the sign and magnitude of the parameter estimates. That is, whether the parameter estimates conform with the dictates of the economic theory.

ii. The coefficient of multiple determinations: This will be used to determine the explanatory power of the variables or the goodness of fit.

iii. Statistical Criteria: These are determined by the statistical theory and aim at evaluating the statistical reliability of the estimates.

First order tests that will be carried here are as follows

Students-T- Test

This was used to determine the significance of the individual parameter estimates. T-test will be made in the hypothesis format and the decision rule is thus.

If the calculated t—value (Tcal) is greater than the observed or theoretical T-value (Tobs) ie:

If Tcal >Tobs reject the null hypothesis and accept the alternative of T-value being statistically significant etc.

3.3.2 Model Estimation

**Regression Analysis**

Economic Criteria: These are tests set by the theory of econometrics and at investigating whether the assumptions of the econometric method employed are satisfied or not. The test carried out under this criteria include the following:

The F-Test

This was used to determine the significance of the entire regression result. It is a test of the existence of a significant linear relationship between the independent variables the dependent variables.

Using hypothesis form

Null hypothesis for F-test

Ho:a1=a2=a3=0

Against the alternate hypothesis

H1:a1=a2=a3=0

The F-value is also a test of overall goodness of fit.

Normality Test

This test was carried out to check whether the error term follows the national distribution. The normality test adopted is the Jarque-Bera (JB) test of normality. The JB test of normality is an asymptotic, or large-simple, test and it is based on the OLS residuals and uses the chi-square distribution (Gujaratii, 2004:148).

Test for Auto-Corrrelation

The underlying assumption of auto- correlation is that, the successive values of the random variable are temporary independent. Auto-correlation usually indicates that an important part of the variation of the dependent variable has not been explained.

Test for Heteroscedasticity

This test is basically focused on the variance of the error term, it occurs when the variance of the error term is not constant across the observation or independent variable.

3.4 Data Required and Sources

The research work covered the period of 1992-2015 and the major source of data for this study is the statistical Bulletin published annual by the Central Bank of Nigeria (CBN). Other sources of data include the publications of the National Bureau of Statistics (NBS) annual report in Nigeria.

**CHAPTER FOUR**

**4.1 Data Presentation and Analysis**

In order to avoid what Granger and Newbold (1974) call a spurious regression, we examine the time series properties of the underlying data.

**Table 4.1: Unit root on variables and residuals of all the regression**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **ADF- test statistic** | | **Critical value 5%** | | **Probability** | | **Order of integration** | **No of lag** |
| **ln(NOE)**  **ln(CBC)**  **ln(RER)**  **ln(RIR)** | | -14.356  -4.284  -13.300  -16.002 | | -2.8925  -2.8925  -2.8925  -2.8925 | | 0.0324  0.0000  0.0002  0.0002 | I(1)  I(1)  I(1)  I(1) | 0  3  0  0 |

Following from the unit root test, it shows that Non-oil export (NOE), Commercial bank credit (CBC),Real interest rate(RIR), Real exchange rate(RER) are all stationary at first order of integration.

**4.1.2 Co-integration Test for OLS result**

This test makes use of error term (µ) and is conducted to check whether there is evidence of the co-integration between the explanatory variables having the same order of stationarity with the dependent variable. Thus, it takes into consideration the individual order of integration and then the error term was generated and tested for unit root. The co-integration result is shown below:

**Table 4.2: ADF Co-integration Result**

|  |  |  |  |
| --- | --- | --- | --- |
| **ADF statistic of residual** | **ADF residual value** | **Critical value 5%** | **Order of Integration** |
| **Residual** | -3.995797 | -1.944248 | **Stationary** |

The above table reveals that the unit root for residual is stationary at 5% with Dickey Fuller unit root test at level and at lag length 0 (fixed). Thus, there exist co-integration between the dependent variable and its explanatory variables.

**Table 4.3: Table: Long Run Regression Model estimates of the impact of commercial bank credit on non-oil export.**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Coefficient | t-Statistic | Prob. |
| C | 0.006883 | 0.265226 | 0.7914 |
| D(LOG(CBC)) | 0.750335 | 6.408801 | 0.0000 |
| D(LOG(RER)) | 0.515678 | 4.613864 | 0.0000 |
| D(RIR) | 0.007087 | 2.388847 | 0.0190 |
| U(-1) | -0.000594 | -2.203852 | 0.0301 |
| R2=0.611354, Adjusted R2= 0.594081, | | F-statistic=35.39336, Prob(F-statistic)= 0.00 | |

**4.2 Interpretation of Long Run Regression Model Result**

The results indicate that the impact of commercial bank credit (CBC) on non-oil export is positively significant which implies that commercial bank credit contribute significantly to the enhancement of non-oil export in Nigerian economy. This is in conformity with the theoretical expectation. The estimated coefficient of commercial bank credit is 0.7503 which implies that a one percent increase in CBC will result 75% increase in non-oil export.

Real exchange rate (RER) variable coefficient bears a positive sign. This conforms to the apriori expectation. This implies that there is a direct relationship between RER and non-oil export. The coefficient of real exchange rate was found to be 0.5157 which implies that one percent increase on it will bring about 51% percent increases in non- oil export.

Real interest rate (RIR) is positively signed implying that it does not fall in line with the apriori expectation. The coefficient of real interest rate was found to be 0.07087 which implies that interest rate brings about fall to the non-oil export.

**4.3 Evaluation of the Hypothesis**

**Test of hypothesis 1**

Ho: Commercial bank credit has no significant impact on export trade in Nigeria.

H1: Commercial bank Credit has significant impact on export in Nigeria.

**Decision:**

The *p*-value of the slope of CBC variable is 0.0000 which is less than 5 percent (0.05) level of significant. Therefore, we reject the null hypothesis thus; CBC has a significant impact on non-oil export.

**Test of hypothesis 2**

Ho: Real interest rate has no significant impact on export in Nigeria.

H1: Real interest rate has significant impact on export in Nigeria.

**Decision:**

The *p*-value of the slope of real interest rate variable is 0.0190which is less than 5 percent (0.05) level of significant. Therefore, we reject the null hypothesis thus; real interest rate has a significant impact on non-oil export

**Test of hypothesis 3**

H0: Real exchange rate has no significant impact on Nigeria’s export trade

H1: Real exchange rate has significant impact on Nigeria’s export trade

**Decision:**

The *p*-value of the slope of real exchange rate variable is 0.0000 which is less than 5 percent (0.05) level of significant. Therefore, we reject the null hypothesis thus; real exchange rate has a significant impact on non-oil export

**4.4 Evaluation Based on Statistical Criteria (First order)**

**F-Test**

F-test is estimated to know if the model is statistically significant and also to ascertain the adequacy of the model for our analysis by knowing if the data actually fit into the model.

Ho: the model is not significant

H1: the model is significant

Where α= 0.05 (At 5% level of significance.

Decision Rule: reject Ho if F-cal > F0.05, otherwise accept Ho if F-cal < F0.05.

F-cal=35.39336, while the P-value =0.0000

Since the *p*-value is less the 0.05, we reject the Ho and accept H1 which implies that the model is statistically significantly and adequate for analysis and policy implications.

**The coefficient of Multiple Determination R2**

The R2 known as the coefficient of multiple determination is 0.611354, which implies that approximately 61.14 percent of the variation experienced in commercial bank credit is explained by the explanatory variables. The result suggests that the independent variable averagely explained the behavior of the explained variable.

**4.5 Econometrics Test based on diagnostic Checking (2nd order Test)**

**Test for Auto-correlation**

The Breush-Godfrey statistics is used to ascertain the presence of auto-correlation of order q in the model.

**Table 4.2 Breush Pagan Godfrey test**

|  |  |  |
| --- | --- | --- |
|  | F\_ statistics | Probability |
| **Serial Correlation LM test** | 17.93999 | 0.0000 |

The above result reveals that the P-value of B-G statistics is less than 0.05. Given the value of 0.000 we therefore conclude that there is existence of serial autocorrelation of stochastic errors term in the model.

**Test for Heteroscedasticity**

The Hypothesis is;

H0: there is no heteroscedasticity, i.e homoscedasticity

H1: there is heteroscedasticity

**Table 4.3 Breush Pagan Godfrey test**

|  |  |  |
| --- | --- | --- |
|  | F- Statistics | Probability |
| **Breush Pagan Godfrey test** | 0.378596 | 0.8234 |

Using the F-statistics to verify the assumption, the above result indicate that the F-probability value is 0.8234 which is greater than the 5% level of significant, we therefore conclude that there is no heteroscedasticity which implies equal variance of the error term or homoscedasticity.

**Normality Test**

This test is conducted to investigate if the error term are normally distributed. Given hypothesis to be:

H0: the error term is normally distributed

H1: the error term is not normally distributed

|  |  |  |
| --- | --- | --- |
|  | J-B | Probability |
| **Jarque-Bera normality test** | 107.4351 | 0.0000 |

The J-B probability value is 0.000 which is less than 5% level of significant we reject the null hypothesis therefore, error term is not normality distributed in the model.

**CHAPTER FIVE**

**5.0 SUMMERY, RECOMMENDATION AND CONCLUSION**

**5.1 Summary of findings**

This study estimated the impact of commercial bank credit on non-oil export in Nigeria economy. This was done in order to ascertain the extent to which commercial bank has contributed to the non-oil export in Nigeria. Using a quarterly time series data and employing the Ordinary Least Square method of estimating the following variables commercial bank credit (CBC), non-oil export (NOE), real exchange rate (RER) and real interest rate (RIR). The summary below is it findings:

1. Commercial bank credit has a direct and significant relationship with non-oil export in Nigeria.
2. The result reveals that commercial bank credit is positively related and significant with real exchange rate.
3. This thesis also shows the existence a direct and significant relationship between real interest rate and commercial bank credit. However, the direct relationship is not in order with the theoretical expectation.
4. Furthermore, the coefficient of multiple determination is 0.611354 indicate that approximately 61.14 percent of the variation experienced in commercial bank credit is explained by the explanatory variables.

**5.2 Conclusion**

The study re-affirms the fact that one of the most important functions of the commercial banks and other monetary authorities is to make credit available to the investors at affordable rate most especially the non-oil export. This is because low credit or high lending rate will amount to low level of investment which transmits to low non-oil export trade.

The government through its relevant authorities should design a favorable monetary policy that will enable commercial bank to make credit more available to the non-oil export for masses development of that trade. This is because, the fiscal posture for the reform period, and monetary policy outcomes will depend largely on the government’s fiscal stance. The magnitude of credit extended for non-oil and gas sector thus, requiring government to execute certain policy towards promotion of non-oil export especially agriculture. Furthermore, the Central bank of Nigeria should as an operational guidance, impose commercial banks to set aside a certain amount of money from their yearly profit for financing of non-oil export as it is the case for small and medium scale enterprises equity scheme. The government should increase intervention fund for non-oil export.

**5.3 Recommendation**

Based on the following finding on the study, the following policy recommendations aresuggested;

1. The revealed result of the direct and significant relationship of commercial bank credit and non-oil export implies the need to create adequate credit to the non-oil sectors in order to enhance non-oil export trade in Nigeria economy.
2. The government is also required to establish an essential means through which the advancement of credit to the non-oil sector can be monitored in order to achieve the purpose of such credit creation.
3. The result exchange rate indicates the need to moderate and stabilize exchange rate in order to positively influence the non-oil export trade in Nigeria.

**REFERENCES**

Abogan, O. P., Akinola, E. B. and Baruwa, O. I. (2014). Non oil export and

economic growth in Nigeria(1980-2011).*Journal of research of research in economic and international finance vol 3.*

Alavinasab, S.M. Amiri, A.N. (2013). Studying non-oil exports in Iran’s

development plans. *International Journal of Academic Research in Business and Social Sciences. 2013;3(4):248-263.*

Amaechi, N.F. (2004). *Model Agricultural Science. 2nd Edition*. Federal

Polytechnic Press, Oko.

Amin, A. A .(1996). The effect of exchange rate policy on Cameroon’s

agricultural competitives.

Anyanwu, M. O. (1997). Non oil export–led growth in economic development. 2nd

Edition. Longman Nigeria Plc, Lagos..

Aworemi, J.R. Oyedokun, A.J. Odeyemi, J.T. (2011). A study of the efficacy of

finance as export assistance strategy designed to stimulate Nigerian Cocoa Export. *Interdisciplinary Journal of Contemporary Research in Business.(5):130-137.*

CBN (2015). Statistical Bulletin. *Central Bank of Nigeria*

Emmanuel O E (2008).Marcoeconomics environment and agricultural sector

growth in Nigeria. *World journal of social and management studies vol 8*.

Enyim OB, Ewno EN, Okoro TO. Banking sector credit and the performance of

the agricultural sector in Nigeria (1981-2011). *Global Journal of Applied, Management and Social Sciences. 2013;7:35–55.*

Ijere, M. O. (1986). *New perspectives in Financing Nigeria Agriculture. 4th*

*Edition*. Dimension Publishers, Benin; 2014.

Jeff-Anyene, S. E. Eze, G. K. and Ananwude, A. C. (2016).The contribution of the

Nigerian banks to the promotion of non oil exports (1990-2013).*Asian journal of economic, business and accounting vol 1.*

Muftau A I (2003), Commercial bank credit to the agricultural sector and the

Nigerian economy. An analysis of the future trend *.A journal of department of business administration. vol28 no32.*

Nnamocha, P.N. and Eke, C.N. (2016). Bank credit and agricultural output in

Nigeria(1970-2013).An error correction model (ECM)approach. B*ritish journal of economics, management and trade vol 10(29).*

Obeke J(2004). African Development indicators: A publication of World Bank for

Africa’s 53 countries, [*www.thisdayonline.com*](http://www.thisdayonline.com).

Ogunkola, E.O., Bankole, A.S., Adewuyi, A.(2008). China‐Nigeria Economic

Relations, AERC Scoping Studies on China‐Africa Relations [Revised Report submitted to the African Economic Research Consortium (AERC), February, 2008] [*www.aercafrica.org/documents/china\_africa\_relations/Nigeria.pdf pp2-3*](http://www.aercafrica.org/documents/china_africa_relations/Nigeria.pdf%20pp2-3)

Okoh, T.O.(2009). *Trade Liberalization and Economic Growth.*

Okunnu, M.A.(2009). *non-oil export development and promotion as a vital*

*strategy for increasing foreign earning in an economy.*

Olorunshola, J. (1996). *Export –led Growth in Economic Development: Lessons of*

*Experience bullion. Vol. 20 no 4*. CBN, Lagos. Pp 51-61.

Onayemi, S.O. and Ishola, R. A. (2009), *Diversifying the productive base of*

*Nigeria, an Economic Approach to the Assessment of Non-oil export promotion strategies.*

Osuntogu, A., Edordu, C.C. Oramah, B.O.(1997). Potentials for diversifying

Nigeria's non-oil exports to non-traditional markets , *The African Economic Research Consortium Research Paper. 68: 1-2*

Okah IM. (2007). *Prospect for diversification in Nigeria export trade*. 2nd Edition.

Dimension Publishers, Benin.

Sehan, C. (2003).*The impact of net inflows of foreign direct investment on*

*economic growth,unemployment and openness:* Eastern Mediterranean university, Magosa.

Ugochukwu, O. C. (1999). *Advanced studies in agricultural science.* Longman

Nigeria Plc. Lagos; 1999.

Ugwu, C.M. (2010). *Commercial bank credit and agricultural output in Nigeria*

(1982-2007).

Usman, A.O. Salami A.O. The contributions of Nigerian export-import (NEXIM)

Bank Towards Exports (Non-Oil) Growth in Nigeria (1990-2005). *International Business Management Journal. 2008;2(3):*

**APPENDIX**

**APPENDIX 1: UNIT ROOT TEST RESULT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Null Hypothesis: D(INNOE) has a unit root | | | |  |
| Exogenous: Constant | | |  |  |
| Lag Length: 0 (Automatic - based on SIC, maxlag=11) | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | t-Statistic | Prob.\* |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller test statistic | | | -14.35640 | 0.0001 |
| Test critical values: | 1% level |  | -3.501445 |  |
|  | 5% level |  | -2.892536 |  |
|  | 10% level |  | -2.583371 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| \*MacKinnon (1996) one-sided p-values. | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller Test Equation | | | |  |
| Dependent Variable: D(INNOE,2) | | | |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 22:54 | | |  |  |
| Sample (adjusted): 1992Q3 2015Q4 | | | |  |
| Included observations: 94 after adjustments | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| D(INNOE(-1)) | -1.452044 | 0.101143 | -14.35640 | 0.0000 |
| C | 0.070256 | 0.036749 | 1.911798 | 0.0590 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.691385 | Mean dependent var | | 0.014250 |
| Adjusted R-squared | 0.688031 | S.D. dependent var | | 0.634294 |
| S.E. of regression | 0.354280 | Akaike info criterion | | 0.783588 |
| Sum squared resid | 11.54731 | Schwarz criterion | | 0.837701 |
| Log likelihood | -34.82864 | Hannan-Quinn criter. | | 0.805446 |
| F-statistic | 206.1063 | Durbin-Watson stat | | 2.074129 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Null Hypothesis: D(INRER) has a unit root | | | |  |
| Exogenous: Constant | | |  |  |
| Lag Length: 0 (Automatic - based on SIC, maxlag=11) | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | t-Statistic | Prob.\* |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller test statistic | | | -13.30031 | 0.0001 |
| Test critical values: | 1% level |  | -3.501445 |  |
|  | 5% level |  | -2.892536 |  |
|  | 10% level |  | -2.583371 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| \*MacKinnon (1996) one-sided p-values. | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller Test Equation | | | |  |
| Dependent Variable: D(INRER,2) | | | |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 22:55 | | |  |  |
| Sample (adjusted): 1992Q3 2015Q4 | | | |  |
| Included observations: 94 after adjustments | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| D(INRER(-1)) | -1.482488 | 0.111463 | -13.30031 | 0.0000 |
| C | 0.006610 | 0.025567 | 0.258532 | 0.7966 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.657863 | Mean dependent var | | 0.013856 |
| Adjusted R-squared | 0.654144 | S.D. dependent var | | 0.421409 |
| S.E. of regression | 0.247829 | Akaike info criterion | | 0.068889 |
| Sum squared resid | 5.650556 | Schwarz criterion | | 0.123002 |
| Log likelihood | -1.237802 | Hannan-Quinn criter. | | 0.090747 |
| F-statistic | 176.8982 | Durbin-Watson stat | | 1.919663 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Null Hypothesis: D(LNCBC) has a unit root | | | |  |
| Exogenous: Constant | | |  |  |
| Lag Length: 3 (Automatic - based on SIC, maxlag=11) | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | t-Statistic | Prob.\* |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller test statistic | | | -4.283801 | 0.0009 |
| Test critical values: | 1% level |  | -3.503879 |  |
|  | 5% level |  | -2.893589 |  |
|  | 10% level |  | -2.583931 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| \*MacKinnon (1996) one-sided p-values. | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller Test Equation | | | |  |
| Dependent Variable: D(LNCBC,2) | | | |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 23:01 | | |  |  |
| Sample (adjusted): 1993Q2 2015Q4 | | | |  |
| Included observations: 91 after adjustments | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| D(LNCBC(-1)) | -1.465710 | 0.342152 | -4.283801 | 0.0000 |
| D(LNCBC(-1),2) | 0.085559 | 0.285648 | 0.299526 | 0.7653 |
| D(LNCBC(-2),2) | -0.244074 | 0.216037 | -1.129781 | 0.2617 |
| D(LNCBC(-3),2) | -0.554619 | 0.122942 | -4.511213 | 0.0000 |
| C | 0.070993 | 0.026255 | 2.704027 | 0.0083 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.792712 | Mean dependent var | | 0.011869 |
| Adjusted R-squared | 0.783070 | S.D. dependent var | | 0.405274 |
| S.E. of regression | 0.188759 | Akaike info criterion | | -0.443311 |
| Sum squared resid | 3.064183 | Schwarz criterion | | -0.305352 |
| Log likelihood | 25.17067 | Hannan-Quinn criter. | | -0.387653 |
| F-statistic | 82.22030 | Durbin-Watson stat | | 1.835222 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Null Hypothesis: D(RIR) has a unit root | | | |  |
| Exogenous: Constant | | |  |  |
| Lag Length: 0 (Automatic - based on SIC, maxlag=11) | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | t-Statistic | Prob.\* |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller test statistic | | | -16.00196 | 0.0001 |
| Test critical values: | 1% level |  | -3.501445 |  |
|  | 5% level |  | -2.892536 |  |
|  | 10% level |  | -2.583371 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| \*MacKinnon (1996) one-sided p-values. | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller Test Equation | | | |  |
| Dependent Variable: D(RIR,2) | | |  |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 23:03 | | |  |  |
| Sample (adjusted): 1992Q3 2015Q4 | | | |  |
| Included observations: 94 after adjustments | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| D(RIR(-1)) | -1.470101 | 0.091870 | -16.00196 | 0.0000 |
| C | 0.551759 | 0.789144 | 0.699186 | 0.4862 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.735680 | Mean dependent var | | 0.118431 |
| Adjusted R-squared | 0.732807 | S.D. dependent var | | 14.79284 |
| S.E. of regression | 7.646529 | Akaike info criterion | | 6.927428 |
| Sum squared resid | 5379.185 | Schwarz criterion | | 6.981540 |
| Log likelihood | -323.5891 | Hannan-Quinn criter. | | 6.949285 |
| F-statistic | 256.0627 | Durbin-Watson stat | | 2.191574 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**APPENDIX 2: CO-INTEGRATION TEST**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Null Hypothesis: U has a unit root | | | |  |
| Exogenous: None | | |  |  |
| Lag Length: 0 (Fixed) | | |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | t-Statistic | Prob.\* |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller test statistic | | | -3.995797 | 0.0001 |
| Test critical values: | 1% level |  | -2.589531 |  |
|  | 5% level |  | -1.944248 |  |
|  | 10% level |  | -1.614510 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| \*MacKinnon (1996) one-sided p-values. | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Augmented Dickey-Fuller Test Equation | | | |  |
| Dependent Variable: D(U) | | |  |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 23:24 | | |  |  |
| Sample (adjusted): 1992Q2 2015Q4 | | | |  |
| Included observations: 95 after adjustments | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| U(-1) | -0.351509 | 0.087970 | -3.995797 | 0.0001 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.143447 | Mean dependent var | | -3.927056 |
| Adjusted R-squared | 0.143447 | S.D. dependent var | | 87.33814 |
| S.E. of regression | 80.83159 | Akaike info criterion | | 11.63308 |
| Sum squared resid | 614172.1 | Schwarz criterion | | 11.65997 |
| Log likelihood | -551.5715 | Hannan-Quinn criter. | | 11.64395 |
| Durbin-Watson stat | 2.301523 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**APPENDIX 3: THE DIAGNOSTIC RESULT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **HETEROSKEDASTICITY TEST: BREUSCH-PAGAN-GODFREY** | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
| F-statistic | 0.378596 | Prob. F(4,90) | | 0.8234 |
| Obs\*R-squared | 1.572065 | Prob. Chi-Square(4) | | 0.8138 |
| Scaled explained SS | 5.086246 | Prob. Chi-Square(4) | | 0.2786 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Test Equation: | |  |  |  |
| Dependent Variable: RESID^2 | | |  |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 23:30 | | |  |  |
| Sample: 1992Q2 2015Q4 | | |  |  |
| Included observations: 95 | | |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 0.056372 | 0.016570 | 3.402050 | 0.0010 |
| D(LOG(CBC)) | 0.010728 | 0.074755 | 0.143503 | 0.8862 |
| D(LOG(RER)) | 0.029073 | 0.071363 | 0.407388 | 0.6847 |
| D(RIR) | 0.001771 | 0.001894 | 0.934966 | 0.3523 |
| U(-1) | -9.27E-05 | 0.000172 | -0.539041 | 0.5912 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.016548 | Mean dependent var | | 0.057497 |
| Adjusted R-squared | -0.027161 | S.D. dependent var | | 0.155205 |
| S.E. of regression | 0.157299 | Akaike info criterion | | -0.810143 |
| Sum squared resid | 2.226863 | Schwarz criterion | | -0.675728 |
| Log likelihood | 43.48178 | Hannan-Quinn criter. | | -0.755829 |
| F-statistic | 0.378596 | Durbin-Watson stat | | 1.171561 |
| Prob(F-statistic) | 0.823385 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **AUTO-CORRELATION**  **Breusch-Godfrey Serial Correlation LM Test:** | | | | |  |
|  | |  |  |  |  |
|  | |  |  |  |  |
| F-statistic | | 17.93999 | Prob. F(2,88) | | 0.0000 |
| Obs\*R-squared | | 27.51533 | Prob. Chi-Square(2) | | 0.0000 |
|  | |  |  |  |  |
|  | |  |  |  |  |
|  | |  |  |  |  |
| Test Equation: | | |  |  |  |
| Dependent Variable: RESID | | | |  |  |
| Method: Least Squares | | | |  |  |
| Date: 06/30/17 Time: 23:32 | | | |  |  |
| Sample: 1992Q2 2015Q4 | | | |  |  |
| Included observations: 95 | | | |  |  |
| Presample missing value lagged residuals set to zero. | | | | | |
|  | |  |  |  |  |
|  | |  |  |  |  |
| Variable | | Coefficient | Std. Error | t-Statistic | Prob. |
|  | |  |  |  |  |
|  | |  |  |  |  |
| C | | 0.001282 | 0.022122 | 0.057937 | 0.9539 |
| D(LOG(CBC)) | | 0.012118 | 0.099813 | 0.121406 | 0.9036 |
| D(LOG(RER)) | | -0.019335 | 0.095331 | -0.202815 | 0.8397 |
| D(RIR) | | -0.000106 | 0.002529 | -0.042034 | 0.9666 |
| U(-1) | | 0.000674 | 0.000258 | 2.611497 | 0.0106 |
| RESID(-1) | | -0.682861 | 0.114232 | -5.977851 | 0.0000 |
| RESID(-2) | | -0.303167 | 0.108208 | -2.801716 | 0.0063 |
|  | |  |  |  |  |
|  | |  |  |  |  |
| R-squared | | 0.289635 | Mean dependent var | | -3.97E-17 |
| Adjusted R-squared | | 0.241201 | S.D. dependent var | | 0.241058 |
| S.E. of regression | | 0.209984 | Akaike info criterion | | -0.212745 |
| Sum squared resid | | 3.880199 | Schwarz criterion | | -0.024565 |
| Log likelihood | | 17.10539 | Hannan-Quinn criter. | | -0.136706 |
| F-statistic | | 5.979998 | Durbin-Watson stat | | 1.992308 |
| Prob(F-statistic) | | 0.000028 |  |  |  |
|  | |  |  |  |  |
|  | |  |  |  |  |

**NORMALITY TEST**



**APPENDIX 4:**

**THE LONG RUN REGRESSION MODEL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable: LOG(NOE) | | |  |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 23:08 | | |  |  |
| Sample: 1992Q1 2015Q4 | | |  |  |
| Included observations: 96 | | |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| C | -12.11349 | 0.445424 | -27.19543 | 0.0000 |
| LOG(CBC) | 1.022156 | 0.019886 | 51.40143 | 0.0000 |
| LOG(RER) | 0.457919 | 0.066050 | 6.932883 | 0.0000 |
| RIR | -0.000786 | 0.001942 | -0.405036 | 0.6864 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.978216 | Mean dependent var | | 4.620090 |
| Adjusted R-squared | 0.977506 | S.D. dependent var | | 1.706203 |
| S.E. of regression | 0.255896 | Akaike info criterion | | 0.152684 |
| Sum squared resid | 6.024421 | Schwarz criterion | | 0.259531 |
| Log likelihood | -3.328814 | Hannan-Quinn criter. | | 0.195873 |
| F-statistic | 1377.118 | Durbin-Watson stat | | 1.086990 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**THE PARSIMONIOUS SHORT RUN REGRESSION MODEL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent Variable: D(LOG(NOE)) | | | |  |
| Method: Least Squares | | |  |  |
| Date: 06/30/17 Time: 23:20 | | |  |  |
| Sample (adjusted): 1992Q4 2015Q4 | | | |  |
| Included observations: 93 after adjustments | | | |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|  |  |  |  |  |
|  |  |  |  |  |
| C | 0.005323 | 0.027608 | 0.192808 | 0.8476 |
| D(LOG(CBC)) | 0.752268 | 0.120240 | 6.256403 | 0.0000 |
| D(LOG(RER)) | 0.515236 | 0.114782 | 4.488822 | 0.0000 |
| D(RIR) | 0.007124 | 0.003053 | 2.333575 | 0.0220 |
| D(LOG(CBC(-2))) | 0.018553 | 0.133056 | 0.139435 | 0.8894 |
| D(LOG(RER(-2))) | 0.011865 | 0.124348 | 0.095419 | 0.9242 |
| U(-1) | -0.000595 | 0.000276 | -2.157688 | 0.0337 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.611611 | Mean dependent var | | 0.052952 |
| Adjusted R-squared | 0.584514 | S.D. dependent var | | 0.390851 |
| S.E. of regression | 0.251936 | Akaike info criterion | | 0.152998 |
| Sum squared resid | 5.458550 | Schwarz criterion | | 0.343624 |
| Log likelihood | -0.114427 | Hannan-Quinn criter. | | 0.229968 |
| F-statistic | 22.57127 | Durbin-Watson stat | | 2.837634 |
| Prob(F-statistic) | 0.000000 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

NOE = Non Oil Export

RIR = Real Interest Rate

CBC = Commercial Bank Credit

RER = Real Exchange Rate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| quarter | NOE | RIR | CBC | RER |
| 1992q1 | 4.418675 | -24.995 | 78797.48 | 60.44812 |
| 1992q2 | 4.60955 | -30.99 | 82138.65 | 64.44231 |
| 1992q3 | 4.800425 | -36.985 | 85479.83 | 68.4365 |
| 1992q4 | 4.2278 | -19 | 75456.3 | 56.45393 |
| 1993q1 | 5.080725 | -46.185 | 102495 | 81.79026 |
| 1993q2 | 5.17015 | -49.39 | 116168.9 | 91.14984 |
| 1993q3 | 5.259575 | -52.595 | 129842.9 | 100.5094 |
| 1993q4 | 4.9913 | -42.98 | 88821 | 72.43069 |
| 1994q1 | 9.785775 | -49.705 | 158660.3 | 126.1103 |
| 1994q2 | 14.22255 | -43.61 | 173803.7 | 142.3516 |
| 1994q3 | 18.65933 | -37.515 | 188947.2 | 158.5929 |
| 1994q4 | 5.349 | -55.8 | 143516.8 | 109.869 |
| 1995q1 | 23.15395 | -22.205 | 216781.2 | 187.7532 |
| 1995q2 | 23.2118 | -12.99 | 229471.9 | 200.6723 |
| 1995q3 | 23.26965 | -3.775 | 242162.5 | 213.5913 |
| 1995q4 | 23.0961 | -31.42 | 204090.6 | 174.8342 |
| 1996q1 | 24.78645 | 4.915 | 268979.4 | 236.1944 |
| 1996q2 | 26.2454 | 4.39 | 283105.8 | 245.8784 |
| 1996q3 | 27.70435 | 3.865 | 297232.1 | 255.5624 |
| 1996q4 | 23.3275 | 5.44 | 254853.1 | 226.5104 |
| 1997q1 | 30.39003 | 4.1025 | 325154.8 | 274.1951 |
| 1997q2 | 31.61675 | 4.865 | 338951.3 | 283.1439 |
| 1997q3 | 32.84348 | 5.6275 | 352747.7 | 292.0927 |
| 1997q4 | 29.1633 | 3.34 | 311358.4 | 265.2464 |
| 1998q1 | 30.42588 | 10.0725 | 387171.7 | 244.4915 |
| 1998q2 | 26.78155 | 13.755 | 407799.2 | 187.9416 |
| 1998q3 | 23.13723 | 17.4375 | 428426.8 | 131.3916 |
| 1998q4 | 34.0702 | 6.39 | 366544.1 | 301.0415 |
| 1999q1 | 20.8254 | 16.71 | 483790.7 | 75.30675 |
| 1999q2 | 22.1579 | 12.3 | 518527.1 | 75.77183 |
| 1999q3 | 23.4904 | 7.89 | 553263.5 | 76.23692 |
| 1999q4 | 19.4929 | 21.12 | 449054.3 | 74.84167 |
| 2000q1 | 25.61933 | 3.0575 | 652121.5 | 78.97163 |
| 2000q2 | 26.41575 | 2.635 | 716243.1 | 81.24126 |
| 2000q3 | 27.21218 | 2.2125 | 780364.6 | 83.51088 |
| 2000q4 | 24.8229 | 3.48 | 587999.9 | 76.702 |
| 2001q1 | 44.68941 | 4.53 | 870480.7 | 85.83687 |
| 2001q2 | 61.37022 | 7.27 | 896475.2 | 85.89323 |
| 2001q3 | 78.05104 | 10.01 | 922469.6 | 85.94959 |
| 2001q4 | 28.0086 | 1.79 | 844486.2 | 85.78051 |
| 2002q1 | 94.743 | 8.79 | 1012148 | 84.5333 |
| 2002q2 | 94.75415 | 4.83 | 1075832 | 83.06065 |
| 2002q3 | 94.76529 | 0.87 | 1139515 | 81.588 |
| 2002q4 | 94.73185 | 12.75 | 948464.1 | 86.00594 |
| 2003q1 | 99.40967 | -0.0225 | 1282210 | 80.54733 |
| 2003q2 | 104.0429 | 3.045 | 1361221 | 80.97931 |
| 2003q3 | 108.6761 | 6.1125 | 1440232 | 81.41129 |
| 2003q4 | 94.77644 | -3.09 | 1203199 | 80.11535 |
| 2004q1 | 111.471 | 8.4725 | 1637219 | 85.02621 |
| 2004q2 | 109.6326 | 7.765 | 1755195 | 88.20916 |
| 2004q3 | 107.7942 | 7.0575 | 1873170 | 91.3921 |
| 2004q4 | 113.3094 | 9.18 | 1519243 | 81.84327 |
| 2005q1 | 112.8657 | 6.9275 | 2145682 | 96.16494 |
| 2005q2 | 119.7754 | 7.505 | 2300218 | 97.75484 |
| 2005q3 | 126.6852 | 8.0825 | 2454754 | 99.34474 |
| 2005q4 | 105.9559 | 6.35 | 1991146 | 94.57505 |
| 2006q1 | 150.0107 | 9.08 | 3162141 | 100.701 |
| 2006q2 | 166.4265 | 9.5 | 3714993 | 100.4673 |
| 2006q3 | 182.8422 | 9.92 | 4267844 | 100.2337 |
| 2006q4 | 133.595 | 8.66 | 2609289 | 100.9346 |
| 2007q1 | 280.9083 | 7.765 | 5565372 | 102.8904 |
| 2007q2 | 362.5586 | 5.19 | 6310048 | 105.7808 |
| 2007q3 | 444.2089 | 2.615 | 7054724 | 108.6712 |
| 2007q4 | 199.2579 | 10.34 | 4820696 | 100 |
| 2008q1 | 519.6105 | 1.7525 | 8266519 | 109.8301 |
| 2008q2 | 513.3619 | 3.465 | 8733638 | 108.0985 |
| 2008q3 | 507.1132 | 5.1775 | 9200758 | 106.3669 |
| 2008q4 | 525.8592 | 0.04 | 7799400 | 111.5616 |
| 2009q1 | 553.3869 | 6.115 | 9550451 | 107.0926 |
| 2009q2 | 605.9092 | 5.34 | 9433025 | 109.5498 |
| 2009q3 | 658.4315 | 4.565 | 9315599 | 112.007 |
| 2009q4 | 500.8646 | 6.89 | 9667877 | 104.6354 |
| 2010q1 | 761.5931 | 4.1225 | 9302241 | 114.6064 |
| 2010q2 | 812.2325 | 4.455 | 9406309 | 114.7486 |
| 2010q3 | 862.8719 | 4.7875 | 9510378 | 114.8908 |
| 2010q4 | 710.9537 | 3.79 | 9198173 | 114.4641 |
| 2011q1 | 904.9673 | 4.9875 | 9821073 | 118.4563 |
| 2011q2 | 896.4233 | 4.855 | 10027701 | 121.8796 |
| 2011q3 | 887.8793 | 4.7225 | 10234329 | 125.3029 |
| 2011q4 | 913.5113 | 5.12 | 9614446 | 115.033 |
| 2012q1 | 942.0441 | 5.4975 | 10716630 | 131.139 |
| 2012q2 | 1004.753 | 6.405 | 10992303 | 133.5517 |
| 2012q3 | 1067.462 | 7.3125 | 11267977 | 135.9644 |
| 2012q4 | 879.3352 | 4.59 | 10440956 | 128.7262 |
| 2013q1 | 1086.01 | 8.2775 | 11785655 | 140.689 |
| 2013q2 | 1041.849 | 8.335 | 12027661 | 143.0009 |
| 2013q3 | 997.6888 | 8.3925 | 12269666 | 145.3128 |
| 2013q4 | 1130.171 | 8.22 | 11543650 | 138.3772 |
| 2014q1 | 880.3157 | 8.3 | 12775973 | 148.1493 |
| 2014q2 | 807.1032 | 8.15 | 13040275 | 148.674 |
| 2014q3 | 733.8908 | 8 | 13304576 | 149.1987 |
| 2014q4 | 953.5282 | 8.45 | 12511672 | 147.6246 |
| 2015q1 | 495.7587 | 6.1375 | 10176659 | 112.5425 |
| 2015q2 | 330.8391 | 4.425 | 6784440 | 75.36167 |
| 2015q3 | 165.9196 | 2.7125 | 3392220 | 38.18083 |
| 2015q4 | 660.6783 | 7.85 | 13568878 | 149.7233 |

SOURCE: Central Bank of Nigeria Statistical Bulletin Central Bank And World Bank (2016)