

The Effects of Corruption on Economic Development: A Case Study of Nigeria

Ejiofor Okechukwu Franklin

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Approval of the Institute of Graduate Studies and Research

Prof. Dr. Serhan Ciftcioglu
Acting Director

I certify that this thesis satisfies the requirements as a thesis for the degree of Master of Arts in Marketing Management.

Assoc. Prof. Dr. Mustafa Tumer
Chair, Department of Business Administration

We certify that we have read this thesis and that in our opinion it is fully adequate in scope and quality as a thesis for the degree of Master of Arts in Marketing Management.

Prof. Dr. Sami Fethi
Supervisor

Examining Committee

1. Prof. Dr. Cem Tanova
2. Prof. Dr. Sami Fethi
3. Assoc. Prof. Dr. Ilhan Dalci

ABSTRACT

This Thesis investigates the link between Corruption, Military Spending, Public Spending and Economic Growth for the Nigerian economy. ARDL Bounds test and Granger Causality approaches are conducted over the period 1980- 2010. The empirical results suggest that the public investment is an important driver for real income growth in both the long and short- terms of the Nigerian economy. The findings also show that Corruption and Military Spending cause output growth in both the long and short- term periods. The negative impact of Corruption and Military Spending exist for real income whereas Public Spending has positive influence on economic growth in the case of the Nigerian economy.

Keywords: Economic Growth, a Growth Model, ARDL, Granger Causality, Corruption, Nigerian economy.

ÖZ

Bu tez ampirik olarak nijerya ekonomisindeki ekonomik büyüme ile askeri harcamalar, kamu yatırımları ve yolsuzluk index'I arasındaki uzun ve kısa dönem liilşkiyi oto regresif dağıtılmış gecikme test ile ölçer (ARDL).Oto regresif dağıtılmış gecikme ve Granger nedensellik testleri kullanılarak 1980 ile 2010 yılları arasında Nijerya'nın ekonomik büyümesi incelenmiştir. Ampirik bulgular kamu yatırımlarının hem uzun hem de kısa dönemli ekonomik büyüme üzerinde etkili olduğu belirlenmiştir. Bulgular ayrıca yolsuzluğun ve askeri harcamaların ekonomik büyümeyi negative yönde etkilediğini ve büyümeye doğru bir akış olduğu ıspatlanmıştır.yolsuzun ve asker iharcamaların ekonomik buyumeyi negate fetkiledigini bulmustuk.Bunun paralelinde Nijerya ekonomisinde devlet yatırımlarının ekonomik büyümeyi positif yönde etkilediği bulunmuştur.

Anahtar kelimeler: Ekonomik büyüme;bir büyüme modeli; oto regresif dağıtılmış gecikme testi (ARDL); yolsuzluk, Granger Nedensellik testi, Nijerya ekonomisi.

Dedicated to My Parents

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Chapter 1

INTRODUCTION

1.1 Introduction

Economic Growth and Development is quite difficult to achieve especially in Africa and most third world countries. Why is it that way? China used to be a third world country a decade ago and today they are running alongside many developed countries of the world. Many African countries which are termed as third world nations face this problem of under development; this ailment is termed by many scholars as corruption.

Nigeria which is located in West Africa with a population of over 130million covers an area of 923,768sq.km. She has an active age structure of 54.6% (15-64years) and a dependency age structure of 42.3% (0-14years) and 3.1% (65years and above).She is endowed with lots of agricultural and natural resources with petroleum as its major source of revenue. Others include natural gas, tin, iron ore, cocoa, coal and limestone. With such resources, a country is supposed to take care of its citizens and boost the economy but due to bad governance, excessive embezzlement of public funds, excessive spending on fruitless projects and disorientation of public officials and politicians, have put the country in disarray.

1.2 Aim of Study

This thesis empirically examines the concept of corruption and how it tends to affect the economy of Nigeria and its citizens. It tends to explain how the various variables used (real GDP, military spending, public investment and corruption index) are vital in stating the severity of corruption in Nigeria. The aim of this thesis work is

- i) To investigate the relationship between Corruption and the economic development for the case of the Nigerian economy over the period 1980–2010 by conducting ARDL Bounds testing Approach.
- ii) To know which variable correlates with others and those that need adjustments through the correlation matrix before any estimation is done.
- iii) To examine the causes and effects of corruption on the Nigerian economy, this is done through the use of the Granger Causality test.
- iv) To suggest possible ways of addressing the problems which corruption breeds such as poverty, low standard of living, unemployment and increase in crime rates.

1.3 Methodology and Data

The data extracted for this thesis is time-series and have 30 years over the period between 1980 and 2010. The data have various variables such as Corruption index (CI), Public Investment (PI), Military Investment (MS), and Real Gross Domestic Product (GDP).

The methods used in this thesis are ARDL Bounds, Johansen cointegration and Granger causality approaches for estimating unbiased results and confirm the results for the sake of the thesis.

1.4 Findings of the Thesis

The empirical findings in this thesis reveals that changes in the ratio of corruption to GDP precedes changes in real income per worker both in the short term and long term of the Nigerian economy. Also, changes in military spending exceed and precede changes in real income in the short run confirmed by Grangers testing approaches. Johansen's cointegration test on the order hand reveals a long term relationship that exist between economic growth and corruption, military spending and public investment in Nigeria. The results estimated from the error correction models and test conducted stipulates that the model is valid in the Nigerian economy.

1.5 Structure of the Study

This thesis is organized as follows: The first chapter is the introduction and brief Summary of the work, the second chapter reviews the related literature; the third chapter gives brief information about the Nigerian economy. Chapter four explains model, data and the methodology used in the thesis, chapter five presents and discusses results estimated from the empirical results and chapter 6 concludes some important remarks by discussing managerial implications as well as summarizes some important recommendations for further studies.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

The term Corruption has been in existence for a long time and has resulted in negativity. Looking back at the old Roman Empire, Corruption played a vital role in office giving. Even in the Bible, Judas betrayed his master for money which is a form of Corruption. This has been in existence for ages and present day is no exception. All countries experience this; the difference is in the level of severity. Nigeria after years of developmental efforts and management is still being classified as an underdeveloped country of the Third World. She is rich in human and natural resources and should be considered as one of the richest countries in the world, with one of the largest reserves of crude oil but the standard of living of her citizens is decreasing by the day. Over the past twenty years, Nigeria has generated more than \$360billion from crude oil and still in the world scene we still rank as a third world nation as a result the corrupt activities executed by our corrupt leaders, politicians and top public officials to siphon the country's treasuries. Nigeria's maternal mortality rate remains one of the highest in the African continent while Life expectancy remains 52 years as at 2008. Less than 67% of Nigerians have access to good health services and 42% safe and clean water indicating that the poor masses will be exposed to diseases and sicknesses. The under-developmental situation of Nigeria is quite alarming and disturbing even with her God given resources. This is

why many scholars and researchers have identified corruption as one of the major factors responsible for under development of Nigeria's economy.

Akindele (2005:7) made a research on labor, capital, Political instability, corruption and income inequality to know if there was any relationship between them by using a modified production function. He came to the conclusion that corruption had a negative effect on the economy and hinders economic development. Taking Nigeria in to consideration here with its richness in human and natural resources and high level of corruption, one can deduce that as far as corruption exists and fares well in a country, that country is bound to face a down fall economically be it the giants of the world (developed nations of the world). The issue of Nigeria and Corruption has been in existence since the discovery of crude oil and the magnitude and intensity has increased over the years. It is a known fact that an average Nigerian is corrupt, this is because of the orientation kids and young adults see, observe and as such digest such behavior. This malicious act and behavior has been in existence in official politics in Nigeria since 1975 up till date.

2.2 The Concept of Corruption

Corruption all over the world is seen as being negative and has got nothing beneficial to offer except shame and degradation not only its country but also the entire world. It has been defined by many scholars to be a menace in every nation and has affected many countries, forcing them to live below standards(Third world nations).It tends to affect level of investment, entrepreneurial incentives, design and implementation of rules and regulations regarding access to resources and assets within a country.

Whitaker (1992:1617) said most government decisions including legislative bills and litigations came to involve financial considerations put plainly as bribes.

Sen (1999:275) sees Corruption as a perversion or a change from good to bad. He went further to say that, corruption or "corrupt" behavior involves the violation of established rules for personal gain.

Lipset and Lenz (2000:112) said Corruption involves all efforts to secure wealth or power through illegal means, private gain at public expense and misuse of public power for private benefit.

Corruption is a behavior which deviates from the formal duties of a public role, because of private gains (personal, close family, private clique, pecuniary or status). It is a behavior which violates rules against the exercise of certain types of duties for private gains (Nyerere, 1967).

Corruption involves the use of a reward to pervert the judgment of a person in a position of trust(Bribery); bestowal of patronage by reason of close relationship rather than merit(Nepotism); and the illegal appropriation of public resources for private uses (Banfield, 1975).

Corruption has affected Economic Growth and Development adversely such that Private investment and Government Expenditure were affected, lowering the share of spending on education (Mauro, 1996)

In a nutshell, Corruption is going against all morals of life, which is bad for the people, society, government, nations and countries.

2.3 Forms of Corruption

2.3.1 Political Corruption

Political corruption can be said to be the most carried out form of corruption in Nigeria. This form of corruption occurs when a top public officer who doesn't care about the masses and any money meant for development and maintenance of both lives and properties within the country is used for personal and selfish interest. These political officers when sworn in or elected, tend to steal budgetary allocations. The influence of Godfathers and massive rigging of elections make it impossible for the people's choice to be victorious. The political class controls all and sundry, this has put Nigeria in the present situation of the high level of corruption which has been termed as one of the highest as a result of its corruption index compared to other countries. The various forms of political corruption carried out in Nigeria are stated below and each of them has negative effects on the country and its citizens, making life difficult for the masses.

i) Bribery

In Nigeria, Bribery is seen as a normal way of life. The rate of kickbacks (Egunje) that take place in the society is part of what has kept the nation stagnant for years. It is so bad that not just influential and wealthy politicians that do it, even citizens take part in it and enjoy it. Eradicating and lessening corruption and its effects is a fallacy because it takes various facets. In the public sector, a lot of bribery takes place. From bribing one's self to a particular position when one is not qualified, Falsification of one's age to retain a particular position, settling a public servant for a particular

assignment to be done on time when in actual sense, it is the persons duty. This has also eaten into our educational and religious aspects of life.

ii) Massive Rigging of Elections and Subversion of People's Mandate

Since Nigeria embarked on the train of democracy, the opposite has always been the case. They say democracy is the government of the majority, masses and the electorate. But in real sense we do not practice that because the people's mandates are not always valid. This may be as a result of Political party they partook in which has no influence or not the party in power and in charge, it could also be as a result of Godfatherism which is the placement of one's Godson in power as a result of past positions one has occupied, economic wealth and connections. These people control all and take part in all forms of rigging to put their candidates in power. Once they are in power, they tend to do whatever their Godfathers tell them and this result in a lot of havoc because if a leader doesn't cater for the ruled and their wellbeing in terms of living standards, infrastructural development, education and employment, the rate of poverty and crime will be on the increase.

iii) Too Much Concentration of Power

Nigeria operates a system in which the three tiers of government possess various powers and limitations. The legislative is responsible for making law; the Executive carries out and executes these laws while the Judiciary interprets the laws. Each of them is to serve as watch dogs to each other but in the Nigerian scenario, it is a problem. The Executive which is the President is supreme and can do anything at will without consulting the other two branches of government which are supposed to be watch dogs that check the excesses of the presidency. Also, the state governor

reigns supreme at the regional level like the president and instead of confiding in the other two branches of government (state legislative and judiciary) for democracy to reign, they do what they like in power and these other two branches that are supposed to watch the governor when passing his boundaries can't and don't have a choice but to follow his rules and ambition. This should not be so because they are supposed to be impartial in carrying out their functions and should speak out and act if they are not ruling accordingly.

iv) Nepotism

In Nigeria, the problem of who you know before getting a good paying job, gaining admission into a good secondary or University is devastating. If your family and parents are not influential in the society or do not have the economic strength to get you a job or put you in a good University, then the place will become so difficult for the average Nigerian and worst for the poor people who strive to make it in life. This affect our youths negatively and most of them get themselves involved in all forms of negative acts. This breeds incompetence not to the work environment alone but also in schools.

v) Cronyism

This is similar to nepotism. It involves fixing an individual or person to occupy a position in an organization, office or company regardless of if he/she is qualified for the job. This person can be a relative or friend but this should not be because everyone has equal rights before the law and should be allowed to take part in the screening and interview in order to occupy such a position. Office appointment should be based on merit and qualified candidates should be put in such positions so

that they can contribute positively to the country. The flaws of nepotism and cronyism have put Nigeria in a situation where most of our good brains leave the country for greener pastures. When they do, other countries see their values and employ them to their advantage and for us, to our detriment. This brain drain increase has cost Nigeria a lot and instead of having qualified people in power and office, we have illiterates and unqualified individuals who do not contribute anything to the progress and development of the country. All they know is to steal for their own selfish.

vi) Mediocrity

The level of mediocrity in the employment scene in Nigeria is on the increase. This is as a result of admitting non-qualified children into schools and universities and also employing people who are not fit for certain positions in organizations. This occurs as a result of the combination of Nepotism and cronyism which has had adverse effect on the economy and governance of Nigeria. These mediocre which are employed have nothing to contribute to the economy and country because they are inefficient and ineffective in carrying out their functions. There is no form of productivity with such people occupying positions because they have nothing to offer, all they know is to embezzle and carry out projects that won't favor Nigerians but their own selfish interest, Godfathers and family. Nigerians occupying vital and important public offices and positions in the country should discourage the employment of unfit people (mediocres) in public offices so that the economy won't be in shambles because it is these people who spoil the economy with their unqualified policies which the masses suffer in the long run.

2.3.2 Educational Corruption

As early as the first republic, graduates from Nigeria were respected for their intelligence and academic excellence all over the world. Great and well renowned universities wanted graduates from Nigeria because of their capability, intelligence and mental prowess. Many considered Education as the best option to stand out in politics, gain economic wealth and a key to success and Parents were ready to make sacrifice for their children so as to get to that level where they can say they have attained self-actualization. Present Nigeria has brought a total difference of what used to happen then. These universities have lost interest in our graduates because of the corrupt practices happening in our Nigerian schools and educational sector. Present Nigeria see schooling now as a waste of time and money because of the high unemployment rate. 62% of Nigerian youth were unemployed in 2011 and this has been on the increase. What are the reasons for this problem? They include:

- i) Lack of adequate funding

As a result of the high corruption rate in Nigeria, the educational sector suffered a big blow especially when it came to funding. The political class took the money meant for education and converted it to theirs and family. These politicians had this disbelief in education to develop the economy and country which actually resulted in the reduction of allocations to education. Budgetary allocations to education were constantly reduced instead of being increased and the sectors in the economy that needed little amounts were increased to their own advantage. Teachers were deprived of their salaries, Buildings, libraries and laboratories were left and uncompleted without maintenance. This has brought series of strikes in the educational system especially the tertiary institutions. Non-payment of professors, lecturers and non-

academic staffs are common in the Nigerian educational sector which is really affecting the economy and education of our youths.

ii) Corrupt ministry of education officials

Most ministries of education workers are so corrupt especially when it comes to policing those at the grassroots level. They are fond of putting fictitious and nonexistent names in the payroll system to either get more money for themselves and their families. These names which are termed Ghost workers do not exist; they just put those names for their own benefit. Even the government auditors are aware of this and keep calm about the whole matter to get their own share of the money, instead of being transparent. This act if not stopped or tackled, will continue to make our educational system poor because money meant to pay more teachers and lecturers are taken by few stake holders who hold vital public positions.

iii) Payment for admission

Paying money to get into various schools in Nigeria has been on the increase. Some schools have developed ways of raising unnecessary money by allowing lazy students to buy courses of their choice to read in schools. The more professional a course is, the higher the amount paid. Professional courses like Medicine, Law, Accountancy and Pharmaceutical sciences are charged more compared to other courses. This means more unqualified brains will be admitted and those capable will be left to worry because they do not have the money. The end result here is that the economy loses more good brains to other countries or they may decide not to go to school anymore.

iv) Attitude of the teachers

Some teachers think that the only way they can enrich themselves is by collecting money from students who didn't do well in their test and exam and also failing those

who are adamant on paying because they are sure of what they wrote. This which is called “Sorting” is really bad because it is not just the educational sector and economy that suffers it, the student who was denied his/her grade will also feel depressed and bad because nothing was done about the act even when reported to higher authorities. Also, students are forced to buy materials even though he/she has gotten one which wasn't from the lecturer. If they refuse, it is either they are downgraded or failed. This behavior has killed the educational system in most Nigerian universities.

v) Attitude/behavior of the Students

Lazy students have got this orientation of not studying and passing exams. They believe sorting the lecturers, using external hands like hiring people to stand in for them during exams are the best. This has led to the unveiling of unqualified individuals and fall in level of bright people in our society. These students don't want to learn, all they do is sort their way through school. Little do they know that these acts will make them the greatest losers and unproductive. The country on the other hand will also suffer because when such students go over seas and they are not productive, the reputation of the country is tarnished and the educational system in the country is termed poor and under developed.

vi) Parents' nonchalant attitude

Parents a times are naïve and unaware of what their kids do in school. Cultism and college prostitution are the greatest vices which make students go the wrong way. Most kids engage in these activities and get themselves involved in armed robbery and prostitution. Parents should try and ask their kids on how they get certain amount of money and the kind of affluent lifestyle so as to know what their kids are up to. Good morals contribute positively to the economy.

vii) Sex for Grade

This is becoming rampant in our schools which have adverse effect on the educational system in Nigeria especially the female students. The Nigerian University situation is alarming and troubling because of the way these lecturers approach this phenomenon. Sleeping with girls that such lecturers and professors can call their daughters and granddaughters is terrifying. Majority of these girls are annoyed about the whole thing and some follow sheepishly and foolishly to pass the course. This has had negative effect on our educational sector and morals which if not stopped will have a negative effect on education and country.

2.3.3 Religious Corruption

Many countries in the world regard churches and mosques as places where they come in contact with the most high God and pour out their transgressions but some churches have decided to follow the currency by collecting money from corrupt politicians even when they know the money was embezzled and stolen from the sweats of the masses. Most churches especially Protestants have a way of collecting money from their followers which are used to buy flashy cars, go on extreme outrageous vacations. Some build Universities which are expensive and not affordable by the average and poor Nigerian, making them not to have a say or hope of sending their kids to such a school.

2.3.4 Economic and Financial Corruption

i) Public Sector Perspective

This is the foundation of the Nigerian economy and it encompasses all those vital areas which assist in one way or the other to develop the economy and country. Public sector corruption is the worst and if not tackled, short, medium or long term economic planning will not be achieved. Money meant for projects are embezzled or

misappropriated and this has a negative effect on the economy and masses. The energy sector which has received a lot of money is the life line of industries, organizations and the populace is still an illusion because all promises of having constant electrical supply is never achieved .The industrial sector will continue to suffer until something positive is done about electricity in Nigeria. Most developed countries don't face this because before any project is undertaken, a good plan is drawn. That is why developed countries hardly experience electrical outage. Money meant to develop the economy and create employment is either used on fruitless projects or embezzled. We lack direction and planning and this has put us in this situation of under development irrespective of the resources we have.

ii) Private Sector Perspective

The Private sector has got its own flaws and this tends to occur when they decide to participate in the corruption acts of their public counterparts. These individuals in the private sectors are responsible for the shipment and movement of stolen and embezzled money from one place to another, location to another. Those impartial bodies whose functions are to check for all forms of money laundering are blind to such activities because some of these people are above the law and cannot be brought to book. Most of these bodies like the EFCC and ICPC are used by these prominent and wealthy politicians to attack and fight their rivals which should not be. They are supposed to uphold justice and bring who so ever is guilty of money laundering to justice. Also, financial institutions should be at alert to check if excess money is leaving the country and work hand in hand with these impartial bodies so that Nigeria can be a better place. Variables like Gross Domestic Product (GDP), Population, Military Expenditures and spending, Public Investments and Corruption index have been considered from 1980-2010 to checkmate Corruption in Nigeria.

Table 1: Variables to be used in this thesis work

YEARS	GROSS DOMESTIC PRODUCT (GDP) Millions (USD)	POPULATION (MILLIONS)	TOTAL MILITARY SPENDINGS MILLIONS (USD)	TOTAL INVESTMENT (%)	CORRUPTION INDEX
1980	60.59	68.45	244.29	20.30	0.0
1981	62.31	70.39	211.17	19.03	0.0
1982	53.93	72.32	204.59	20.87	0.0
1983	36.51	74.27	165.18	18.51	0.0
1984	26.48	76.30	134.52	22.60	0.0
1985	25.97	78.48	130.1	21.87	0.0
1986	20.56	80.69	123.56	23.27	0.0
1987	21.91	83.04	89.75	19.84	0.0
1988	24.31	85.49	129.56	19.06	0.0
1989	23.49	88.00	109.24	19.88	0.0
1990	31.48	90.56	160.69	20.99	0.0
1991	28.34	93.16	220.12	22.05	0.0
1992	25.52	95.73	233.33	22.81	0.0
1993	15.79	98.36	336.37	29.34	0.0
1994	18.09	101.07	425.8	23.98	0.0
1995	36.95	103.85	663.76	15.15	0.0
1996	46.02	106.71	963.81	13.82	1.20
1997	35.39	109.65	1201.86	16.48	1.30
1998	32.75	112.67	1174.75	25.44	1.90
1999	35.87	115.77	3069.41	27.70	1.90
2000	46.39	118.95	2409.44	20.19	1.90
2001	44.14	122.23	2735.75	24.04	1.60
2002	59.12	125.59	3113.57	30.48	1.70
2003	67.66	129.05	1612.11	25.43	1.40
2004	87.85	132.60	2196.43	23.31	1.60
2005	112.25	136.25	2278.85	22.24	1.90
2006	145.43	140.00	2028.11	23.47	2.20
2007	165.92		1890.4	26.35	2.20
2008	207.12		1387.36	22.00	2.20
2009	168.59		1181.72	28.64	2.70
2010	196.84		1181.72	25.19	2.40

SOURCE: World Economic Outlook (WEO) IMF, Transparency International Agency, CBN Statistical Bulletin Vol.20, Dec. 2009 and 2010.

2.4 Corruption in the Global Economy

The Global economy shows the interaction between various countries of the world and such nations will strive to do its best to stand out and make profits and earnings which will favor its citizens. Corruption is inevitable in a country because it exists in every nation; the only difference is in severity. Some may possess slight corrupt practices while others may have large or massive corrupt practices. Under developed countries are faced with high corruption rate while developed and most European countries have low rate of corruption.

The Corruption Perception Index has been the only and worldwide credible measure of domestic and public sector corruption. This is conducted by business experts and leaders from ten independent institutions including the World Bank, Economist Intelligence Unit and the World Economic Forum. The CPI scores countries on a scale of 1-10; they believe the most peaceful countries score the best while the most troubled nation in terms of unstable government and conflict score low.

The tables below show the eleven best and worst countries according to the Corruption Perception Index (CPI) 2012.

Table 2: Eleven Best Countries/Nations with Low Corruption Rates.

COUNTRY RANK	COUNTRY/ TERRITORY	CPI 2012 SCORE	CPI 2011 SCORE	CPI 2010 SCORE
1	DENMARK	9.0	9.4	9.3
1	FINLAND	9.0	9.4	9.2
1	NEW ZEALAND	9.0	9.5	9.3
4	SWEDEN	8.8	9.3	9.2
4	SINGAPORE	8.7	9.2	9.3
6	SWITZERLAND	8.6	8.8	8.7
7	AUSTRALIA	8.5	8.8	8.7
7	NORWAY	8.5	9.0	8.6
9	CANADA	8.4	8.7	8.9
9	NETHERLAND	8.4	8.9	8.8
11	ICELAND	8.2	8.3	8.5

SOURCE: TRANSPERANCY INTERNATIONAL, 2012.

Table 3: Eleven Worst Countries/Nations with High Corruption Rates.

COUNTRY RANK	COUNTRY/ TERRITORY	CPI 2012 SCORE	CPI 2011 SCORE	CPI 2010 SCORE
165	CHAD	1.9	2.0	1.7
165	HAITI	1.9	1.8	2.2
165	VENEZUELA	1.9	1.9	2.0
169	IRAQ	1.8	1.8	1.5
170	TURKMENISTAN	1.7	1.6	1.6
170	UZBEKISTAN	1.7	1.6	1.6
172	MYANMAR	1.5	1.5	-
173	SUDAN	1.3	1.6	1.6
174	AFGANISTAN	0.8	1.5	1.4
174	NORTH KOREA	0.8	1.0	-
174	SOMALIA	0.8	1.0	1.1

SOURCE: TRANSPERANCY INTERNATIONAL, 2012.

Other countries not stated above include United States of America, United Kingdom, China, France, Germany, South Africa and Nigeria with CPI Scores 7.3(19th), 7.4(17th), 3.9(80th), 7.1(22nd), 7.9(13th), 4.3(69th),and 2.7(139th) respectively

2.5 Corruption in Africa

The continent of Africa has seen lots of setbacks in the past decade ranging from poverty to population boom with limited resources to satisfy the populace. A good reason for this is Corruption; others include bad governance, poor economic planning, war and natural disasters.

Gyimah-Brempong and Camacho (2006:245) employed data to examine regional differences on the impact of corruption on economic growth and income inequality in Africa, Asia and Latin America. This was accompanied by introducing regional dummy variables and using interaction terms between the variables. They found out a negative impact of corruption on the growth of income per capita and distribution of income with Africa having the largest negative impact on the growth of income per capita while Latin America had the largest impact on distribution of income. Most African countries termed as Third world nations live below standards. This is as a result of Corruption by Public officials and rulers who deem it fit not to provide for the masses and keep such for their own selfish interest. This breeds unemployment, high poverty rate, high crime rate which makes it difficult for them to even meet up with the basic necessities of life like food, shelter and clothing.

The Continent of Africa is considered as one of the most Corrupt in the world because out of the 10 most corrupt nations in the world, Sub Saharan Africa produced 6 countries which are considered as the worst and most corrupt. This obviously shows how under developed and poor the continent of Africa is in economic planning and development. Most developed nations have in one way or the other contributed to the development of such sub Saharan states to ensure

development. In the year 2008, \$22.5 billion was donated to these African nations by developed foreign countries which were less than nothing compared to the embezzlements and monies lost to Corruption which was over \$140 billion. This is why over 80% of Africans live below \$2 per day and most individuals within the continent have resulted to a lot of social vices like prostitution and crime to cater for basic necessities of life.

Over the years, Countries have tried to improve their economy and reduce the level of Corruption. These include nations like Ghana, Tanzania, Liberia and Rwanda who passed through years of war; starvation and suffering in the past are being funded by international organizations and the works done within the country by getting rid of Corrupt and bad leaders. Countries like South Africa, Nigeria and Kenya still face this problem and have set up Corruption grafts to support the nation but to no avail. Experts believe that the creation of anti-corruption agencies will reduce the intensity of Corruption but it was only effective in Malawi and Namibia but country like Nigeria, it was ineffective because most of these bodies were used by Political aspirants to tackle their rivals during election. Also excessive foreign aid lengthens the gap between citizens and government. Countries like Sierra Leone, Democratic Republic of Congo and Chad suffers from this.

Chapter 3

AN OVERVIEW OF THE NIGERIAN ECONOMY

3.1 Brief History of the Nigerian Economy

Before the advent of oil in Nigeria in the late 1950s, Nigeria operated a purely agrarian economy with its major exports as cocoa, peanuts and palm produce which were its major foreign exchange earner. During this period, the Nigerian economy was stable, currency was appreciated and the employment rate was high and based on merit. Before what was called Nigeria, It was just a large expanse of land made up of three regions namely; Lagos colony, The Northern Protectorate and Southern Protectorate and each region was headed by a traditional head. When the British colonial masters came, they used these traditional rulers to rule their colony which was termed “indirect rule”. The British introduced a Parliamentary system of government with the overall head being the Queen of England and a Governor General to overlook the affairs in the colony which was later changed to a presidential system in 1979 where the head of state was also the head of government. Their (British) main aim was to reap us of our resources for their own good and that of their home country. Like other countries that had to shed blood to gain independence, Nigeria had educated elites who embarked on a nationalist movement to free their colony from colonial rule and on October 1, 1960 Nigeria gained independence. This marked the beginning of a new era, an indigenious Governor General was put who was head of state and ceremonial head while the head of

government was the prime minister. They ensured that the affairs of the country were managed effectively and efficiently. Nigeria has had seven military coups which have had various adverse effects on the economy and populace; the first military coup on January 15, 1966 triggered the civil war which lasted for 30 months. This brought hunger, famine, increases in crime rate and made many Nigerians homeless. Also, the standard of living fell drastically. Nigeria has undergone 29 years of military rule and 24 years of civilian rule and still we have nothing to show for it even being a major distributor of crude oil which is our major resource. These greedy rulers at the discovery of crude oil deserted other resources which would have supplemented earnings gotten from crude oil to build this great nation. A lot of people say the military intervened because of the evils and selfish interests of the civilian counterparts at the expense of the masses. This will be looked up in detail so as to know if really they contributed immensely to the economy or not.

Table 4: Nigerian Indigenous Leadership Style.

HEAD OF STATES	DATE AND YEAR	CIVILIAN RULE (YEARS)	MILITARY RULE (YEARS)	TOTAL YEARS
Late Dr. Nnamdi Azikiwe	Oct 1 st , 1960- Jan.15 th , 1966.	5¼		5¼
Late Major Gen. Aguiyi Ironsi	Jan.15 th , 1966- July 29 th , 1966.		½	½
Gen. Yakubu Gowon.	July 29 th , 1966- July 29 th , 1975.		9	9
Late Gen. Murtala Mohammed.	July 29 th , 1975- Feb.13 th , 1976.		½	½
Gen. Olusegun Obasanjo	Feb.13 th , 1976- Oct.1 st , 1979.		3½	3½

Gen. Olusegun Obasanjo	Feb.13 th , 1976- Oct.1 st , 1979.		3½	3½
Aliyu Shehu Shagari	Oct.1 st , 1979- Dec.31 st , 1983	4¼		4¼
Major Gen. Mohammed Buhari.	Dec.31 st , 1983- Aug.27 th , 1985.		1⅔	1⅔
Gen. Ibrahim Babangida	Aug.27 th , 1985- Aug.26 th , 1993.		8	8

Late Gen. Sani Abacha.	Nov.13 th , 1993- June 8 th , 1998.		5	5
Gen. Abdulsalam Abubakar.	June 8 th , 1998- May 29 th , 1999.		1	1
Chief Olusegun Obasanjo.	May 29 th , 1999- May 29 th , 2007.	8		8
Late Umaru Yar'adua/Goodluck Jonathan	May 29 th , 2007- May 29 th , 2011.	4		4
Goodluck Jonathan	May 29 th , 2011 till date.			
	TOTAL	22	29	51

3.2 The Military and the Nigerian Economy

Many have said the military is a corrective measure to civilian rule and control of economic and political power of Nigeria. They say that most civilian rulers and public officials are thieves and take part in all forms of corrupt practices which affect the country and the economy at large. Panter Brick (1978:3) reports that once the revenue from oil became dominant, the principle of derivation in Nigerian fiscal federalism became trivial and unimportant. This brought chaos and every top public official, rulers and elite group occupying vital positions struggle for a place in the control and sharing of these resources which has been a principal cause of instability in the Nigerian political system. Soldiers have got advantage here because they have ruled more in Nigeria and no one can question their decrees.

Hans (1991:4) said “At the economic level, the current account deficit becomes embarrassing; capacity utilization falls to all-time low, Production nose dives nationally, crime with violence increases rapidly and the minimum material needs of the people are not met. The result is severe hardship on the people and a total decline in standards of living of Nigerians. Policies established by military rulers in Nigeria over the years were futile, the administration of General Ibrahim Babangida predicted revitalization of the Nigerian economy by developing the Structural Adjustment Program (SAP) which was basically dysfunctional. Generally, SAP was seen as a bitter pill which was debt ridden. It was meant to bring a balance between aggregate demand and aggregate supply within the economy but instead worsened the balance of payment position. Adjustment programs in developing societies were supported by IMF and the World Bank basically for development. Guitan et al (1981).

For eight years, Babangida and other military officials of his government consistently insisted that SAP will be the best economic path for Nigeria to develop without any doubt. But in the real sense, SAP turned out to be a financial mal-adjustment program which has left the Nigerian economy stagnant and impossible to revamp. There were other programs put in place by various military rulers to build the country. They include the Operation Feed the Nation (OFN) which was established in 1976 under Gen. Obasanjo's regime and Reconstruction, Reconciliation and Rehabilitation Program (R³) during Gowon's regime in 1967, others include The Second Tier Foreign Exchange Market (SFEM), Foreign Exchange Market (FEM) and Family Economic Advancement Program (FEAP).

3.3 Reasons for Military Intervention in Nigerian Politics

3.3.1 Stagnating Economic Situation

The military believe they can help and adjust the flaws brought by the civilians. For instance, the Shagari government promulgated a program known as The Green Revolution which was basically to assist in the production of food produce. This turned out to be wasteful and inefficient. This led to the recession that struck in 1981 shortly before the army took over the mantle of leadership on December 31, 1983. The military has always seen itself as a corrective regime even when it has little or nothing to offer. Their so called Programs which were introduced to better the economy were futile and worsened the country's economic situation.

3.3.2 Corruption

The term Corruption is a major set-back killing our country and a major reason for Military intervention. This act is majorly carried out by political leaders and public office holders which take various forms like Embezzlements, Falsification of Receipts, Money Laundering and False Declaration of Assets.

3.3.3 Political Instability

Due to the political instability on the part of their civilian counterparts, the military intervene in the politics of Nigeria. This is as a result of the various political parties in the country which were organized along regional and tribal lines which brought unhealthy competitive rivalry in the early 1960s. This triggered series of riots and clashes which made people live in fear and as such triggered military intervention.

3.3.4 Inefficiency and Maladministration

These were also reasons for military intervention in politics. The high level of inefficiency and maladministration on the part of the civilian rulers and public office holders reduced chances of government carrying out its objectives and goals which in one way or the other affect the masses, triggering the military to intervene in Nigerian politics.

3.4 Problems Associated With the Military Which Affects the Nigerian Economy

3.4.1 Lack of Proper Military Orientation

The military strength and intensity involves a long tradition of professionalism, discipline and hierarchical command structure. They are designed to defend, preserve and protect the territory of the state. The military man as an individual sees his duty as one of voluntary service to humanity. In Africa, the opposite is the case. The

average African soldier has a different view of the military profession from his counterparts in Europe and America. He sees the military service as a process for the attainment of economic and political power which is accomplished once a successful coup had taken place. This has brought all manner of problems like mass poverty, execution of futile programs/projects and excessive looting of the country's treasuries.

3.4.2 Disregard for the Constitution

Many African countries undergo forceful takeover by the military without taking into consideration the constitution that was established to ensure the country is ruled effectively and efficiently. These constitutional provisions are not a scare to these military officers once they are determined to strike. The military defy the constitution whenever it is desirable to do so. When a coup succeeds, the constitution itself becomes the first major casualty. It is suspended, repealed or abrogated and decrees, edicts and proclamations are put in place to suit their selfish needs and interest without considering the masses. This breeds corruption in all forms and anyone who stands in their way is either locked up, tortured or even killed.

3.4.3 Selfish Interest on the Part of Military Leaders

Most military officers are fond of catering for themselves and their family without taking the masses into consideration. National funds meant for the development of the country are usually engulfed by these corrupt officials because they know they are above the law and the law court can't do anything about it since they are in charge. This has made Nigerians furious because the masses are the ones bearing the brunt.

3.5 Effects of Military Rule on Nigerians

There has been this controversy about the civilian regime being so corrupt and bastardized by civilian leaders. That all they do is to embezzle the nation's funds and don't care about the citizenry. The military is seen as a corrective measure and can perform better. This is ironical because the military do worse things which have affected the African countries negatively.

Some of these adverse effects include:

- i) Mass poverty on the part of the masses.
- ii) Corruption and abuse of office
- iii) Depreciation in various sectors of the country
- iv) High Unemployment Rate
- v) Destabilization of the Political system
- vi) Excessive and unnecessary killings of individuals as a result of coups.

Table 5: Trends and Growth of Military Spending During Civilian and Military Regimes Showing Inflation Rates.

YEARS/ LEADERS	REGIME	CAPITA L MILEX (N'm)	RECURREN T MILEX (N'm)	TOTAL MILEX (N'm)	INFLATIO N RATE (%)
Shehu Shagari (1980- 1983).	Civilian	2101	2573.80	4678.80	6.6
Buhari/ Idiagbon (1984)	Military	359	659.20	928.20	6.9
Ibrahim Babangida (1985- 1993)	Military	2232.50	9172.10	11404.60	11.6
Abacha/ Shonekan/ Abdulsalam (1993- 1998)	Civilian And Military	17042.20	53681.44	70723.64	17.8
Olusegun Obasanjo (1999- 2007)	Civilian	122580.34	580461.80	703042.1 4	57.0
Yar'adua/ Jonathan (2007- 2010)	Civilian	94673.60	178385.80	273058.8 0	72.8

Table 5 shows how over the years, various dispensation of government (Military and Civilian) have spent money and the rate of inflation that have resulted from them.

- i) The first dispensation which was a democratic one showed the government spending more on recurrent expenditure than capital expenditure (2573.8m to 2101m). This brought about an inflation rate of 6.6%.
- ii) The second dispensation which was a military one spent lesser on capital and recurrent expenditure compared to its predecessor. The Buhari/Idiagbon regime of

1984 which came as a result of a military coup spent 659.2m on recurrent expenditure and 359m on capital expenditure. This regime increased the inflation rate to 6.9%.

iii) The third(1985-1992) was still a military regime which was as a result of a military coup spent 2232.5m on capital expenditure and 9172.1m on recurrent expenditure. This period brought an increase in prices of goods and services in the country and serious embezzlement which resulted in the increase in inflation rate to 11.6%

iv) The years 1993-1998 also witnessed an increment in inflation rate to 17.6%.It also witnessed three rulers, two military and one civilian. All three regimes recorded a total of 17042.2m on capital expenditure and 70723.6m on recurrent expenditure.

v) The year 1999-2007 was a jaw breaker, the rate at which inflation increased really surprised Nigerians. The Obasanjo regime brought the inflation rate to 57% and spent 122580m on capital expenditure and 580461.8m on recurrent expenditure. The truth here was that Nigerians didn't see any improvement in the economy signifying high rate of Embezzlement and Corruption.

vi) TheYar'adua/Jonathan tenure (2008-2010) spent more on recurrent expenditure which was at 178385.2m compared to capital expenditure of 94673.6m.Eventhough it spent less compared to the obasanjo's regime (1999-2007). Inflation rate still increased to 72.8% and this has brought all forms of negativity like increase in crime, unemployment and poverty level.

Chapter 4

DATA, MODEL AND METHODOLOGY

4.1 Data

The Data extracted for this thesis is for 30 years (1980-2010). It is based on four (4) variables which are Gross Domestic Product (GDP), Corruption Index (CI), Military Spending (MS), and Public Investment (PI). These variables are used to measure the severity of corruption and how it has affected the economy and the standard of living of Nigerians. In this work we try to understand how corruption affects economic growth, investment, and development.

Secondly, to know if really GDP complements money spent on investment that is what was really spent to develop the economy was really utilized or was embezzled by politicians/top public officials for their own selfish interest or spent on elephant and colossal projects which are not beneficial to the populace of Nigeria. Thirdly, to know if really there is a difference between the military and civilian regime that existed in Nigeria as regards the living standards of Nigerians and the level of corruption.

4.2 Model

Following Giorgio d'Agostino, John Paul Dunne and Luca Pieroni, (2012) and B. Bhaskara Rao (2010), I used the model below:

$$GDPW_t = a_1 + a_2 CI_t + a_3 MS_t + a_4 PI_t + u_t$$

Where GDPW is output measured by real GDP per number of worker, CI stands for Corruption index, MS stands for Real Military Spending and PI stands for Public Investment. Also a_1 , a_2 , a_3 , a_4 , are estimated parameters and U_t uncorrelated random disturbance term.

4.3 Methodology

The early 1980s saw the promulgation of the concept of Cointegration which has played a vital role in Time series studies. It involves postulating on three points which have been relevant to recent literature writings in research. They include the stationary point, the spurious regression and the Error-correction mechanism.

Time-Series are assumed to be stationary; however, if there is a non-stationary result (trend), a major problem has upsurge and this trend may cause serious problems (i.e spurious results in regression).

A lot of Authors have put forward various methods to test for Cointegration when series are non-stationary. They include the Residual-based Engle Granger test (1987), the Maximum-Likelihood based Johansen test (1988), the Johnson and Juselius tests and the Bounds test for level relationship which is the methodology for this research work which was developed by Pesaran et al. Bounds test is run using the Auto Regressive Distribution Lag (ARDL) model and possesses the various merits which makes it essential in the sense that

- i) It can be applied with mix-ordered regressors, either $I(1)$ or $I(0)$ and to small finite sample.
- ii) The ARDL model takes sufficient numbers of lags to capture the data-generating process in general-to-specific modeling.
- iii) It allows us to derive an Error-Correction model (ECM) by simple linear transformation.
- iv) ARDL is essential for long-run relationships, short-run dynamics and estimation of the equilibrium condition.

Chapter 5

DATA ANALYSIS AND RESULTS

Before conducting the relevant estimations, it is better to see the degree of linear relationship among the variables. Table 6 shows correlation coefficients of the variables in a normal logarithm. This pair wise correlation between GDP and the variables is high. Also, a low correlation among the explanatory variables, and a high correlation between the dependent (GDPW, the ratio of GDP to labor) and the explanatory variables is expected. The classical linear regression model has an assumption that no independent variable has a perfect linear relationship with any of the other independent variables.

5.1 Unit Root Test

Table 6: Correlation Matrix of Variables under Consideration

	LGDPW	LCI	LMS	LPI
LGDPW	1.00			
LCI	-0.88	1.00		
LMS	-0.97	0.39	1.00	
LPI	.064	0.48	.39759	1.00

The next step is to test for unit roots in the series. Two approaches have therefore been employed in the present study: the Augmented Dickey Fuller (ADF) test, and multivariate form of the Augmented Dickey-Fuller unit root test (MADF). Using 5 percent significance level gotten from Mackinnon (1991) on 30 number variables for

the purpose of critical values and which is added to the ADF equation. Zero, one and two augmentations (numbers in parentheses) prevent error in auto correlation to variables. Also, Schwarz Bayesian model for optimum lags in Table 7 shows that ADF tests reveal that LGDPW, LCI, LMS are of order I(1) and LPI is of order zero, I(0). The MADF results also confirm the results taken from the ADF test, so LGDPW, LCI, LMS are again I(1) and LPI is I(0).

In the case of the MADF, 5% significance level was applied stipulating trends for variables which was obtained from Osterwald-Lenum (1992).

Table 7: Unit Root Test.

Variables	Test Statistics and Critical Values				Integration levels
	Levels		1 st differences		
	ADF	C.V. (5%)	ADF	C.V. (5%)	
LGDPW	-0.12 (0)	-2.96	-4.28 (0)	-2.96	I(1)
LCI	-0.30 (1)	-2.96	-5.25 (0)	-2.96	I(1)
LMS	-2.37 (3)	-2.97	-5.37 (0)	-2.96	I(1)
LPI	-3.84(1)	-2.96	-5.25(1)	-2.97	I(0)
Variables	Test Statistics and Critical Values				Integration levels
	Levels		1 st differences		
	MADF	C.V. (5%)	MADF	C.V. (5%)	
LGDPW	4.38	12.39	15.09	12.39	I(1)
LCI	6.34	12.39	21.16	12.39	I(1)
LMS	3.18	12.39	21.07	12.39	I(1)
LPI	13.78	12.39	20.60	12.39	I(0)

Unit root tests have provided mixed results. Therefore, bounds test to level relationships will be employed in this thesis in order to investigate long-term relationship between GDP and its regressors. Several methods are available for conducting cointegration tests. The most commonly conducted methods include the residual-based Engle-Granger (1987) test, the maximum-likelihood-based Johansen (1988), and Johansen and Juselius (1990) tests. Due to the low power and other problems associated with these methods, the OLS-based autoregressive distributed lag (ARDL) approach to level relationship has become popular in recent years. The main advantage of ARDL modeling lies in the fact that it can be applied, regardless of whether regressors are I(0) or I(1). This explains that the estimated model avoids the problems associated with the core multi- integration analysis and its variable classified into I(0) and I(1). The other advantage of the approach is that the model takes sufficient numbers of lags to capture the data-generating process in the general-

to-specific modeling framework. This also gives us a chance to drive a dynamic ECM from ARDL and keeps the long run information from problem.

5.2 Bounds Test

Bounds tests results of the present study are provided in Table 8. The critical values for bounds tests from Pesaran et al. (1996) are also provided in columns F and W of Table 8. Column F states the critical value bounds version of F-statistic while Column W provides the bounds version of W-statistic for the three cases to know if the underlying regression contains an intercept.

Table 8: F-Statistic Results for ARDL Models

F-Statistic Variables	F-Stat	Column F		Column W	
		I(0)	I(1)	I(0)	I(1)
F(GDPW, CI, MS, PI)	6.11	2.85	4.05	14.2	20.24

The above table shows that F-statistics exceeds the upper bound of critical value band, so we can reject the null hypothesis of no long-term relationship between the variables in the model. This indicates an equilibrium relationship between GDP and its elements.

The next step is to estimate the coefficients of the long-term relationships and find their error-correction terms. Table 9 presents long-run and short-run estimates as well as error-correction coefficients. It can be seen from the Table that the error-correction terms (coefficients) are statistically significant for the model. Its coefficient is -0.43 . This means that the disequilibrium occurring due to a shock is totally corrected in 1 year period at the rates of 43 percent.

Table 9: ARDL long-run and short-run estimates

Long-Run Regressor	ARDL (1,1, 0,0) SCB (1 lag)	Short-Run Regressor	ARDL (1,0,0,0,) SCB (1 lag)
C	3.69 (3.75)	C	-
T	0.22 (11.15)	ECT (-1)	-0.43 (3.10)
LGDPW(-1)	0.42 (2.95)	-	-
LCI	-0.25 (-3.00)	DLCI	-0.90 (-1.83)*
LCI(-1)	-0.45 (-1.81)*	-	-
LMS	-0.32 (-4.45)	DLMS	-0.42 (-1.73)*
LPI	0.84 (3.23)	DLPI	0.39 (2.33)
Rbar	0.96	Rbar	0.34
F-stat	1633.7	F-stat	5.76
DW	1.86	DW	2.21
SC	0.15 (0.69)	SC	0.70 (0.40)
FF	3.01 (0.08)	FF	0.89 (0.34)
N	0.34 (0.841)	N	2.72 (0.25)
H	1.48 (0.22)	H	0.17 (0.68)

Note: t-statistics are in parentheses and all problem-solving pass at the 5% or 1% level of significance. It is worth stressing that the reported analysis suggests that t evident misspecification do not exist at the 5% level of significance. *star shows the variable are at 10% level of significance.

It is important to mention that our empirical results support the evidence on the relationship between corruption, military spending, public investment and economic growth. Giorgio d'Agostino et al. (2013) also investigates the relationship between the relevant variables and economic growth by using time-series analysis for 53 African countries. Based on the corruption index, the empirical results estimated should give another way around. However, one was divided by the index used in this thesis and then the relevant equation was estimated so the expected sign on corruption index was found negative (i.e, Table 1, page 16).

5.3 Johansen Maximum Likelihood Test

Table 10: Johansen Maximum Likelihood Test

Cointegration Regression	H ₀	H ₁	λ_{\max}	λ_{\max} (T-P)	Critical Value	λ_{trace}	λ_{trace} (T-P)	Critical Value
Model	r = 0	r = 1	26.88	25.42	23.92	46.20	42.41	39.34
	r ≤ 1	r = 2	16.81	17.68	19.22	19.31	24.05	23.08
	r ≤ 2	r = 3	2.50	10.93	12.39	2.50	10.55	12.39

Note: Cointegration likelihood ratio (LR) test to determine the number of cointegration vectors (r) based upon Maximal Eigen Value of Stochastic Matrix, Trace of Stochastic matrix, and the (T-P) version is for the small sample suggested by Reimers (1992)ⁱ. r indicates the number of cointegrating relationship. λ_{\max} is the maximum eigen value statistics and λ_{trace} is the trace statistics. The (T-P) version is the corrected statistics for small samples suggested by Reimers (1992)ⁱⁱ. VAR 1 based on SBC is used in the Johansen procedure and unrestricted intercept and unrestricted trend in the VAR model are not rejected in all cases. The critical values are obtained from Osterwald-Lenum (1992)ⁱⁱⁱ.

The Johansen cointegration procedure has also been employed for the models of the study. The results for testing the number of cointegration vectors with this respect are reported in Table 10. Maximum Eigen value statistics (λ_{\max}) and trace statistics (λ_{trace}) are corrected by the Reimer statistics ($\lambda_{\text{T-P}}$) as provided in Table 10. Both (λ_{\max}) and (λ_{trace}) tests results show that cointegrating vectors exist in the proposed models from Table 10 which confirm the findings from bounds test; therefore, long-term equilibrium relationship has also been confirmed between economic growth and corruption, military spending and public investment in Nigeria, according to Johansen cointegration tests.

5.4 Granger Causality Test

Table 11: Granger Causality Tests

Dependent Variable	Independent Variable	Degrees of Freedom ^a	Wald Test	Sim's LR Test	m*	n*	HH Multiple-Rank	Causal Inference
GDPW	CI	1	12.18*	12.04*	1	1	3.92* (1,33) ^b	CI→GDPW
DGDPW	DCI	2	0.49	0.39	3	2	2.22* (1,27) ^b	DCI→DGDPW
GDPW	MS	1	1.23	1.61	3	1	0.49 (1,26) ^b	NC
DGDPW	DMS	1	4.41*	4.39*	1	1	6.73* (1,32) ^b	DMS→DGDPW
GDPW	PI	1	0.01	0.02	1	1	0.034 (1,32) ^b	NC
DGDPW	DPI	1	1.08	1.20	1	1	0.029 (1,32) ^b	NC

Finally, Granger causality tests have been carried out in the study and their results are presented in Table 11. The variables in this table are presented at their level forms (GDPW, CI, MS, and PI for long-term causality) and first difference forms (DGDPW, DCI, DMS, and DPI for short-term causality). Results from Table 11 suggest unidirectional causalities that run from CI to GDPW, DCI to DGDPW, and MS to GDPW. These results reveal that changes in the ratio of corruption to GDP (CI) precede changes in real income per worker both in the short term and long term of the Nigerian economy. On the other hand, changes in military spending also precede changes in real income per worker in the short-term period. The findings from error-correction models and Granger causality tests in the present study confirm the validity of the model in the case of the economy.

Chapter 6

CONCLUSION, RECOMMENDATIONS AND SUGGESTIONS

6.1 Conclusion

This work investigates the relationship between corruption, military spending, public investment and its effect on the Nigerian economy over the period 1980–2010. As a result of the disparities in integration level of the variables (a mix of I (0) and I (1), which are found in the series), the ARDL approach has been employed to carry out this investigation.

The empirical results suggest that corruption has got negative impact on the output level of the economy in both the short and long terms of the Nigerian economy. Military spending proxy has also negatively significant influence on output as well. Error-correction model was used to ensure the existence of a stable long-term relationship and approve a deviation from the long-term equilibrium following a short-term shock, which is corrected by 43 percent after each year.

The empirical results suggest that corruption, military spending and public investment are the most important factors in both the long term, however public investment is the strongest one in the short term. This evidence supports the results obtained by Giorgio d'Agostino et al.(2013). The findings also show that corruption and military spending in Granger-cause real output growth in both the long-terms

while public spending in Granger-cause real output in the short-term periods This means that the Nigerian economy is badly affected by two variables, corruption and military spending.

6.2 Recommendations and Suggestions

It is known that corruption has no positive effect on the economy and the lives of Nigerians as it tends to retard economic growth misallocate talent, limit the flow of aids, Create adverse budgetary consequences, poor public services and negative composition of government expenditure.

- i) To tackle this trauma brought about by corruption, I would suggest or recommend that the whole citizenry from top to bottom be adequately reoriented and retransformed (social transformation) to know what is right from wrong. Doing the right thing and seeing the social vices attached to corruption and its effect on economic growth and development.
- ii) Setting up impartial Bodies whose main functions are to check the excesses of public officials and politicians when they are put in power. These bodies should work pari-passu with the judiciary in order to bring corrupt officials and rulers to justice in respective of his/her political and economic power. Examples of these impartial bodies are the EFCC (Economic Financial Crime Commission) and the ICPC (Independent Corrupt Practice Commission) which were established in 2003 and 2000 respectively. But these bodies over the years have been used by public official and rulers to fight their opponents in election especially in this our democratic dispensation.

- iii) Enforcing anti- corruption laws without fear or favor. These laws no matter how harsh or severe they may sound or be, it is for the best so that greedy politicians and rulers wouldn't seize the opportunity to embezzle at the expense of the masses. Once such laws are enforced and executed and these greedy men see they can't do anything to adjust or run from it, at the sight of these harsh penalties which may jeopardize their political career, they will caution themselves.
- iv) Also, committees should be set up to look into disbursement of public funds so that such money would be used judiciously, effectively and efficiently so as to create employment for the unemployed and raise standard of living of Nigerians and not spending them on colossal and futile projects which are strategies used by corrupt leaders to steal and they won't be held liable.

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APPENDIX

Estimated Correlation Matrix of Variables

```
*****
**
      LRGDW      LCI      LMS      LPI
LRGDW      1.0000     -.88098    -.97017    .64892
LCI         -.88098    1.0000     .39545     .48475
LMS         -.97017    .39545    1.0000     .39759
LPI         .64892     .48475    .39759    1.0000
*****
**
```

Unit root tests for variable LRGDP

The Dickey-Fuller regressions include an intercept but not a trend

```
*****
**
30 observations used in the estimation of all ADF regressions.
Sample period from 1981 to 2010
*****
**
```

	Test Statistic	LL	AIC	SBC	HQC
DF	-.12879	10.8865	8.8865	7.4853	8.4383

95% critical value for the augmented Dickey-Fuller statistic = -2.9627
 LL = Maximized log-likelihood AIC = Akaike Information Criterion
 SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable LRGDP

The Dickey-Fuller regressions include an intercept and a linear trend

```
*****
**
30 observations used in the estimation of all ADF regressions.
Sample period from 1981 to 2010
*****
**
```

	Test Statistic	LL	AIC	SBC	HQC
DF	-1.7709	12.5303	9.5303	7.4285	8.8579

95% critical value for the augmented Dickey-Fuller statistic = -3.5671
 LL = Maximized log-likelihood AIC = Akaike Information Criterion
 SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable DLRGDP

The Dickey-Fuller regressions include an intercept but not a trend

**

29 observations used in the estimation of all ADF regressions.
Sample period from 1982 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-4.2859	10.9314	8.9314	7.5641	8.5031

**

95% critical value for the augmented Dickey-Fuller statistic = -2.9665
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable DLRGDP

The Dickey-Fuller regressions include an intercept and a linear trend

**

29 observations used in the estimation of all ADF regressions.
Sample period from 1982 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-4.1991	10.9523	7.9523	5.9013	7.3099

**

95% critical value for the augmented Dickey-Fuller statistic = -3.5731
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable LCRP

The Dickey-Fuller regressions include an intercept but not a trend

**

30 observations used in the estimation of all ADF regressions.
Sample period from 1981 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-0.30000	24.9945	22.9945	21.5933	22.5462

**

95% critical value for the augmented Dickey-Fuller statistic = -2.9627
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable LCRP

The Dickey-Fuller regressions include an intercept and a linear trend

**

30 observations used in the estimation of all ADF regressions.
Sample period from 1981 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-2.3659	28.1165	25.1165	23.0147	24.4441

**

95% critical value for the augmented Dickey-Fuller statistic = -3.5671
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable DCRP

The Dickey-Fuller regressions include an intercept but not a trend

**

29 observations used in the estimation of all ADF regressions.
Sample period from 1982 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-5.2545	23.6837	21.6837	20.3164	21.2555

**

95% critical value for the augmented Dickey-Fuller statistic = -2.9665
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable DCRP

The Dickey-Fuller regressions include an intercept and a linear trend

**

29 observations used in the estimation of all ADF regressions.
Sample period from 1982 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-5.2610	24.0532	21.0532	19.0023	20.4109

**

95% critical value for the augmented Dickey-Fuller statistic = -3.5731
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable LMSP

The Dickey-Fuller regressions include an intercept but not a trend

**

27 observations used in the estimation of all ADF regressions.
Sample period from 1984 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-.65557	-4.2977	-6.2977	-7.5935	-6.6830
ADF(1)	-.62338	-4.2670	-7.2670	-9.2108	-7.8450
ADF(2)	-.87485	-2.8422	-6.8422	-9.4339	-7.6128
ADF(3)	-2.3701	6.0277	1.0277	-2.2119	.064353

**

95% critical value for the augmented Dickey-Fuller statistic = -2.9750
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable LMSP

The Dickey-Fuller regressions include an intercept and a linear trend

**

27 observations used in the estimation of all ADF regressions.
Sample period from 1984 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-1.0374	-3.8493	-6.8493	-8.7930	-7.4273
ADF(1)	-.97635	-3.8489	-7.8489	-10.4406	-8.6196
ADF(2)	-1.2833	-2.1168	-7.1168	-10.3564	-8.0801
ADF(3)	-2.3029	7.8347	1.8347	-2.0528	.67875

**

95% critical value for the augmented Dickey-Fuller statistic = -3.5867
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable DMSP

The Dickey-Fuller regressions include an intercept but not a trend

**

29 observations used in the estimation of all ADF regressions.
Sample period from 1982 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-5.3714	-4.2313	-6.2313	-7.5986	-6.6595

**

95% critical value for the augmented Dickey-Fuller statistic = -2.9665
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Unit root tests for variable DMSP

The Dickey-Fuller regressions include an intercept and a linear trend

**

29 observations used in the estimation of all ADF regressions.
Sample period from 1982 to 2010

**

	Test Statistic	LL	AIC	SBC	HQC
DF	-5.2494	-4.2311	-7.2311	-9.2820	-7.8734

**

95% critical value for the augmented Dickey-Fuller statistic = -3.5731
LL = Maximized log-likelihood AIC = Akaike Information Criterion
SBC = Schwarz Bayesian Criterion HQC = Hannan-Quinn Criterion

Cointegration with unrestricted intercepts and restricted trends in the VAR

Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic Matrix

**

29 observations from 1982 to 2010. Order of VAR = 1.

List of variables included in the cointegrating vector:

LRGDP Trend

List of eigenvalues in descending order:

.14039 .0000

**

Null Value	Alternative	Statistic	95% Critical Value	90%Critical
r = 0	r = 1	4.3871	12.3900	10.5500

**

Use the above table to determine r (the number of cointegrating vectors).

Cointegration with unrestricted intercepts and restricted trends in the VAR

Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic Matrix

**

29 observations from 1982 to 2010. Order of VAR = 1.

List of variables included in the cointegrating vector:

DLRGDP Trend

List of eigenvalues in descending order:

.40574 0.00

**

Null Value	Alternative	Statistic	95% Critical Value	90%Critical
r = 0	r = 1	15.0928	12.3900	10.5500

**

Use the above table to determine r (the number of cointegrating vectors).

Cointegration with unrestricted intercepts and restricted trends in the VAR

Cointegration LR Test Based on Trace of the Stochastic Matrix

**

30 observations from 1981 to 2010. Order of VAR = 1.

List of variables included in the cointegrating vector:

LCRP Trend

List of eigenvalues in descending order:

.19050 .0000

**

Null Value	Alternative	Statistic	95% Critical Value	90%Critical
r = 0	r = 1	6.3403	12.3900	10.5500

**

Use the above table to determine r (the number of cointegrating vectors).

Cointegration with unrestricted intercepts and restricted trends in the VAR

Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic Matrix

 **
 29 observations from 1982 to 2010. Order of VAR = 1.

List of variables included in the cointegrating vector:

DCRP Trend

List of eigenvalues in descending order:

.51802 .0000

 **

Null Value	Alternative	Statistic	95% Critical Value	90%Critical Value
r = 0	r = 1	21.1660	12.3900	10.5500

 **

Use the above table to determine r (the number of cointegrating vectors).

Cointegration with unrestricted intercepts and restricted trends in the VAR
 Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic

Matrix

 **

30 observations from 1981 to 2010. Order of VAR = 1.

List of variables included in the cointegrating vector:

LMSP Trend

List of eigenvalues in descending order:

.10065 .0000

 **

Null Value	Alternative	Statistic	95% Critical Value	90%Critical Value
r = 0	r = 1	3.1826	12.3900	10.5500

 **

Use the above table to determine r (the number of cointegrating vectors).

Cointegration with unrestricted intercepts and restricted trends in the VAR

Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic Matrix

 **

29 observations from 1982 to 2010. Order of VAR = 1.

List of variables included in the cointegrating vector:

DMSP Trend

List of eigenvalues in descending order:

.51659 .0000

 **

Null Value	Alternative	Statistic	95% Critical Value	90%Critical Value
r = 0	r = 1	21.0798	12.3900	10.5500

 **

Use the above table to determine r (the number of cointegrating vectors).

Cointegration with unrestricted intercepts and restricted trends in the VAR
 Choice of the Number of Cointegrating Relations Using Model Selection
 Criteria

 **
 30 observations from 1981 to 2010. Order of VAR = 1.
 List of variables included in the cointegrating vector:
 LPUSP Trend
 List of eigenvalues in descending order:
 .31305 0.00

 **

Rank	Maximized LL	AIC	SBC	HQC
r = 0	8.1513	7.1513	6.4507	6.9271
r = 1	13.7836	10.7836	8.6818	10.1113

 **
 AIC = Akaike Information Criterion SBC = Schwarz Bayesian Criterion
 HQC = Hannan-Quinn Criterion

Cointegration with unrestricted intercepts and restricted trends in the VAR
 Cointegration LR Test Based on Maximal Eigenvalue of the Stochastic
 Matrix

 **
 29 observations from 1982 to 2010. Order of VAR = 1.
 List of variables included in the cointegrating vector:
 DPUSP Trend
 List of eigenvalues in descending order:
 .50867 .0000

 **

Null Value	Alternative	Statistic	95% Critical Value	90% Critical Value
r = 0	r = 1	20.6088	12.3900	10.5500

 **

Use the above table to determine r (the number of cointegrating vectors).

```

Autoregressive Distributed Lag Estimates
      ARDL(1,1,0,0) selected based on Schwarz Bayesian Criterion
*****
**
Dependent variable is LRGDP
30 observations used for estimation from 1981 to 2010
*****
**
Regressor          Coefficient          Standard Error          T-
Ratio[Prob]
LRGDP (-1)          .42389          .14358
2.9523[.007]
LCRP                -.26791          .24352          -
1.1002[.283]
LCRP (-1)          -.45376          .25017          -
1.8138[.083]
LMSP                .18601          .067999
2.7355[.012]
LPUSP              -.48665          .15552          -
3.1291[.005]
C                  2.0970          .58752
3.5693[.002]
T                  .13018          .027281
4.7717[.000]
*****
**
R-Squared          .9668  R-Bar-Squared          .96705
S.E. of Regression .11953  F-stat.    F( 6, 23)
1633.7[.000]
Mean of Dependent Variable 7.1615  S.D. of Dependent Variable
2.2001
Residual Sum of Squares .32861  Equation Log-likelihood
25.1431
Akaike Info. Criterion 18.1431  Schwarz Bayesian Criterion
13.2389
DW-statistic      1.8602  Durbin's h-statistic
.61974[.535]
*****
**

```

Diagnostic Tests

```

*****
**
* Test Statistics *          LM Version          *          F Version
*****
**
* A:Serial Correlation*CHSQ( 1)= .15570[.693]*F( 1, 22)=
.11478[.738]
*          *          *
* B:Functional Form *CHSQ( 1)= 3.0160[.082]*F( 1, 22)=
2.4590[.131]
*          *          *
* C:Normality *CHSQ( 2)= .34532[.841]*          Not applicable
*          *          *
* D:Heteroscedasticity*CHSQ( 1)= 1.4802[.224]*F( 1, 28)=
1.4532[.238]
*****
**
A:Lagrange multiplier test of residual serial correlation
B:Ramsey's RESET test using the square of the fitted values
C:Based on a test of skewness and kurtosis of residuals
D:Based on the regression of squared residuals on squared fitted values

```

```

Estimated Long Run Coefficients using the ARDL Approach
ARDL(1,1,0,0) selected based on Schwarz Bayesian Criterion
*****
**
Dependent variable is LRGDP
30 observations used for estimation from 1981 to 2010
*****
**
Regressor          Coefficient          Standard Error          T-
Ratio[Prob]
LCRP                -.2527                .41617                  -
3.0100[.006]
LMSP                -.32288              .072523                 -
4.4521[.000]
LPUSP              .84472               .26126                  -
3.2333[.004]
C                  3.6399              .97000                  -
3.7525[.001]
T                  .22596              .020250                 -
11.1586[.000]
*****
**

```

```

Estimated Long Run Coefficients using the ARDL Approach
ARDL(1,0,0,0) selected based on Schwarz Bayesian Criterion
*****
**
Dependent variable is DLRGDP
29 observations used for estimation from 1982 to 2010
*****
**
Regressor          Coefficient          Standard Error          T-
Ratio[Prob]
DCRP                -0.90651            .49763                  -
1.8365[.084]
DMSP                -0.42907            .24711                  -
1.7363[.095]
DPUSP              0.3990              .59921                  2.3347[.028]
*****
**

```

```

Error Correction Representation for the Selected ARDL Model
ARDL(1,0,0,0) selected based on Schwarz Bayesian Criterion
*****
**
Dependent variable is dDLRGDP
29 observations used for estimation from 1982 to 2010
*****
**
Regressor          Coefficient          Standard Error          T-
Ratio[Prob]
dDCRP              -.90651              .49763                  -
1.8365[.084]
dDMSP              -.42907              .24711                  -1.7363[.095]
dDPUSP             .3990               .59921                  2.3347[.028]
ecm(-1)           -.43265              .13954                  -
3.1006[.005]
*****
**
List of additional temporary variables created:
dDLRGDP = DLRGDP-DLRGDP(-1)
dDCRP = DCRP-DCRP(-1)
dDMSP = DMSP-DMSP(-1)
dDPUSP = DPUSP-DPUSP(-1)
ecm = DLRGDP -.90651*DCRP -.42907*DMSP + 1.3990*DPUSP
*****
**
R-Squared          .40854      R-Bar-Squared
.33757
S.E. of Regression .17822      F-stat.      F( 3, 25)
5.7562[.004]
Mean of Dependent Variable .0028101    S.D. of Dependent Variable
.21897
Residual Sum of Squares .79403      Equation Log-likelihood
11.0208
Akaike Info. Criterion 7.0208      Schwarz Bayesian Criterion
4.2862
DW-statistic      2.2027
*****
**
R-Squared and R-Bar-Squared measures refer to the dependent variable
dDLRGDP and in cases where the error correction model is highly
restricted, these measures could become negative.

```
