



**NEAR EAST UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF BANKING AND FINANCE**

**THE IMPACT OF HIGH EXTERNAL DEBT ON THE ECONOMIC
GROWTH AND DEVELOPMENT IN NIGERIA (1980- 2020)**

MSc. THESIS

Beatrice Neecarlo

Nicosia

December 2022

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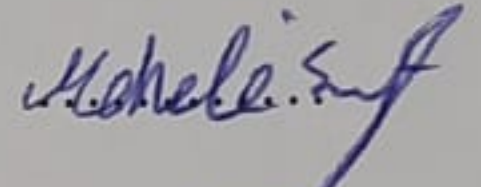


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Approval

We attest to having read the thesis submitted by BEATRICE NEECARLO titled "THE IMPACT OF HIGH EXTERNAL DEBT ON THE ECONOMIC GROWTH AND DEVELOPMENT IN NIGERIA (1980- 2020) In addition, we are of the view that it fulfils all of the requirements, both in terms of its breadth and its level of quality, to be a thesis for the Master of Social Sciences degree.

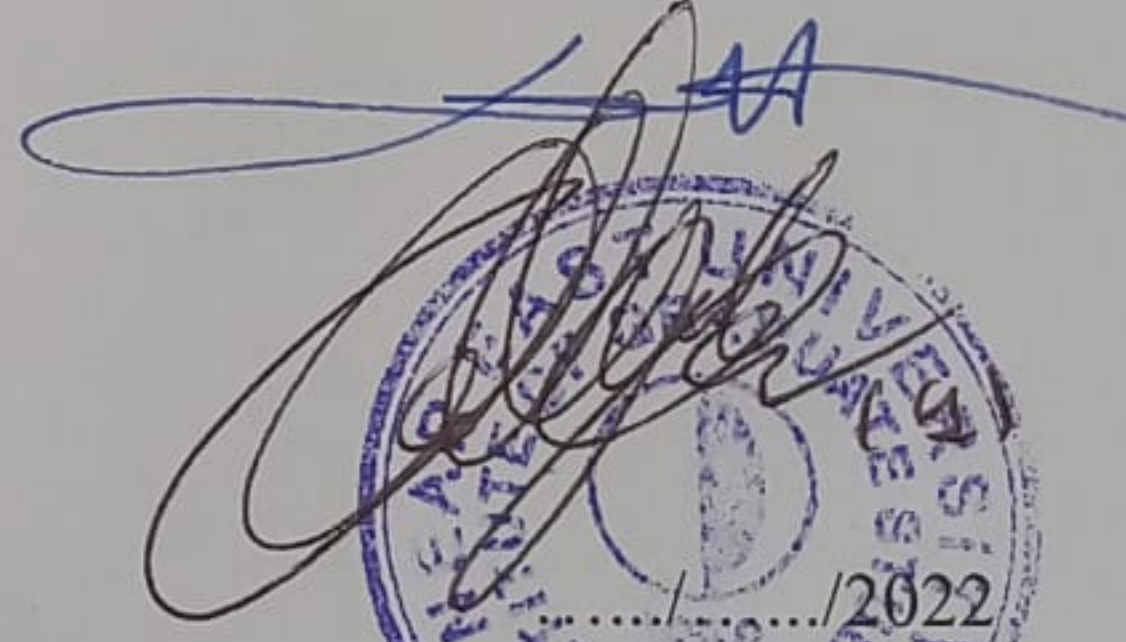

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Declaration

I hereby declare that all information, documents, analysis, and findings included in this thesis were obtained and presented in accordance with the academic regulations and ethical principles of the Near East University Institute of Graduate Studies. As required by these standards and regulation, I have credited and referenced all non-original sources and data used in this study.

BEATRICE NEECARLO

03-Jan-2023

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Abstract

The Impact of High External Debt on The Economic Growth and Development in Nigeria (1980- 2020)

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The purpose of this thesis is to investigate the impact that external debt would have on Nigeria's economic growth and development between the years 1980 and 2020. When a nation's debt is both extensive and costly, making it challenging for the government to make repayments, it is considered detrimental to the economy of that nation. This is particularly important to keep in mind for administrations that have just recently taken office. Despite this, the government is in favor of it since it enables them to achieve essential macroeconomic goals such as increases in living standards in combination with economic development. This is why the government promotes it. Raising the general population's quality of life in less developed countries is an objective that has not yet been accomplished, despite being a top priority. Emerging nations continue to grapple with high rates of poverty because economic development in these countries is moving at a snail's pace. In this investigation, the Granger causality test and the GMM model were used to investigate the possibility of cointegration. The findings indicate that the real interest rate, and real total reserve have a favorable influence on economic development in Nigeria; however, external debt has a large and negative impact on economic growth in Nigeria, both in the short run and the long run. According to the results of the granger causality, total reserves are a cause of foreign debt; however, external debt does not cause total reserves. If we want to see sustainable economic development, government spending on health care, schools, and the economy as a whole has to be extended as a component of productive expenditure. Given that the total stock of Nigeria's foreign debt has a negative correlation with economic development, a rise in that stock would drive even slow expansion because there is a negative correlation between the two. Despite this, the data reveals that the borrowed stock was managed in a thorough manner.

Keywords: External debt, Trade, economic growth, interest rate, granger causality, GMM model

Özet

Nijerya'da Yüksek Dış Borcun Ekonomik Büyüme ve Kalkınmaya Etkisi (1980-2020)

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Bu tezin amacı, 1980 ve 2020 yılları arasında dış borcun Nijerya'nın ekonomik büyümesi ve gelişmesi üzerindeki etkisini araştırmaktır. o ulusun ekonomisine zararlı olarak kabul edilir. Bu, göreve yeni başlamış yönetimler için özellikle akılda tutulması önemlidir. Buna rağmen hükümet, ekonomik kalkınma ile birlikte yaşam standartlarının artması gibi temel makroekonomik hedeflere ulaşmalarını sağladığı için hükümetten yana. Bu nedenle hükümet teşvik ediyor. Az gelişmiş ülkelerde genel nüfusun yaşam kalitesinin yükseltilmesi, birinci öncelik olmasına rağmen henüz gerçekleştirilememiş bir hedeftir. Gelişmekte olan ülkeler yüksek yoksulluk oranlarıyla boğuşmaya devam ediyor çünkü bu ülkelerdeki ekonomik gelişme kaplumbağa hızıyla ilerliyor. Bu araştırmada, eşbütünleşme olasılığını araştırmak için Granger nedensellik testi ve GMM modeli kullanılmıştır. Bulgular, reel faiz oranı ve reel toplam rezervin Nijerya'daki ekonomik kalkınma üzerinde olumlu bir etkiye sahip olduğunu göstermektedir; ancak dış borcun Nijerya'daki ekonomik büyüme üzerinde hem kısa vadede hem de uzun vadede büyük ve olumsuz bir etkisi var. Granger nedensellik sonuçlarına göre, toplam rezervler dış borcun bir nedenidir; ancak dış borç toplam rezervlere neden olmaz. Sürdürülebilir bir ekonomik kalkınma görmek istiyorsak, sağlık hizmetleri, okullar ve bir bütün olarak ekonomiye yapılan devlet harcamaları, üretken harcamaların bir bileşeni olarak genişletilmelidir. Nijerya'nın toplam dış borç stokunun ekonomik gelişme ile negatif bir korelasyona sahip olduğu göz önüne alındığında, bu stoktaki bir artış, ikisi arasında negatif bir korelasyon olduğu için yavaş bir genişlemeye bile yol açacaktır. Buna rağmen, veriler ödünç alınan hisse senedinin kapsamlı bir şekilde yönetildiğini ortaya koymaktadır.

Anahtar Kelimeler: Dış borç, Ticaret, ekonomik büyüme, faiz oranı, granger nedensellik, GMM modeli

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List of Abbreviations

- ADF:** Augmented Dickey-Fuller
- ARDL:** Auto Regressive Distributed Lag
- GMM:** Generalized Method of Moments
- OLS:** Ordinary Least Squares
- CBN:** Central Bank of Nigeria
- ECM:** error correction model
- GLS:** Generalized Least Square
- FDI:** foreign direct investment
- GDP:** Gross Domestic Product
- IMF:** International Monetary Fund
- DMO:** Debt Management Office
- ICM:** international capital market
- SAP:** Structural Adjustment Program
- 2SLDV:** Two-Stage Limited Dependent Variable model
- VECM:** Vector Error Correction Method
- GFCF:** Gross Fixed Capital Formation
- SAP:** systems, applications, and products
- SDRS:** Special Drawing Rights
- VAM:** vector autoregressive models
- HIPC:** highly indebted poor countries
- RIR:** Real interest rate
- ED:** external debt
- TR:** Total reserve
- ET:** error term
- GNP:** Gross National Product
- LDC:** less developed countries
- GCT:** Granger causality test

CHAPTER I

1.1 INTRODUCTION

THE IMPACT OF HIGH EXTERNAL DEBT ON THE ECONOMIC GROWTH AND DEVELOPMENT IN NIGERIA (1980- 2020)

There is a considerable relationship between sustainable development and economic development if the government is not constrained in its power to move money based on economic growth toward social development. As a consequence, if these ideal circumstances do not exist, economic growth will not result in changes in social development. Neoclassical thinkers and politicians who care about growth tend to agree that "economic growth must come first in order for development to happen." The phenomenon of economic development is extraordinarily complicated since it is affected by a wide variety of political, social, and cultural influences. The degree of access that a country has to its natural resources, scientific research, human resources, and technical expertise all have a significant bearing on the expansion of the economy. Classical economists, on the other hand, are of the opinion that in order for an economy to expand, it must have labor, monetary means, natural resources, and a certain amount of specialized knowledge are required that must be possessed. Other aspects that have a significant impact on the outcome are also taken into account; among these, investment, technological advancement, international commerce, technological research, and innovation are particularly noteworthy (Sen, 2013).

According to further research, the Kuznets hypothesis is supported by the observation that a rise in the population has a multiplicative effect on societal progress (Thirlwall, 1999). Recent research has expanded on this idea by incorporating other kinds of economic growth and development, such as the Human Capital Kuznets Curve, and Energy in addition to the original Kuznets Curve, there is now an Environmental Kuznets Curve.

If a country's debt is both lengthy and expensive, which makes it difficult for the government to make repayments, it is seen as harmful to the economy. This is especially true for governments that have just been elected. Despite this, the government favors it since it allows them to accomplish critical macroeconomic objectives such as improvements in standards of life in conjunction with economic growth. A priority that has not yet been met is improving the standard of living of the general populace in underdeveloped nations. Because of slow economic progress, emerging nations continue to struggle with high rates of poverty. As a direct

consequence of this, the economic progress of several Asian nations has remained a pipe dream. So, countries take on foreign debt in order to put money into social development projects that will improve the quality of life in the country as a whole.

At every stage of the court process, it was strictly forbidden for those from less fortunate backgrounds to take part in the proceedings. "The poor are those whose means are adequate, but barely adequate, for a good independent existence; the really poor are those whose capacities are insufficient for this, based on the country's average quality of living," he said in one of his articles. "The poor are those whose means are adequate, but barely adequate, for a good independent existence; the really poor are those whose capacities are insufficient for this," he said (Booth, 1971). Hunger, decreased work possibilities, unemployment, a lack of education, severe currency volatility, limited access to health care, and political instability are all potential outcomes of poverty.

Tariq et al. (2014) carried out research on the consequences that being poor in a number of different parts of Pakistan. This article provides a concise summary of their findings. According to the content of the article, one of the most debilitating effects of being poor is an increase in criminal activity as well as economic loss (Hassan et al., 2016; Imran et al., 2018). South Asian nations are also suffering from poverty since the majority of their people do not have access to an appropriate education (Bukhari et al., 2021).

A significant expenditure of capital is necessary for the maintenance of infrastructure investments. Countries with limited resources often turn to borrow as a means of filling the resource gap that prevents them from developing their infrastructure. So, borrowing money from the public is a good way for the government to pay for spending when the money it already has isn't enough. In order to fulfill these commitments, governments all around the globe need massive amounts of financial resources. This requires the delivery of services and commodities to the general population to enhance the general quality of life for the population as a whole. An opportunity for individuals to amass riches and make significant contributions to the expansion of the economy is made available by the provision of high-quality public infrastructure assets. This is the first phase, and perhaps the most crucial one, in the process of accomplishing objectives for sustainable development. It is also the government's job to make sure that the growth that its citizens have brought about through their entrepreneurial efforts continues. This is done by making

sure that the right laws are in place to control social and economic activity. Since the beginning of the coronavirus epidemic in the year 2020, the world has seen a spectacular increase in the amount of public debt that exists throughout the globe. This increase was caused by the pandemic-induced economic slump, which compelled governments all over the globe to grant extraordinary bailouts to private sector firms. As a consequence, this spike occurred. Industrialized nations such as Japan, the United States of America, Germany, and the United Kingdom all ran budget deficits in attempt to stimulate their economies and spend their way out of the recession that was caused by the worldwide epidemic. Africa, as was to be expected, was not exempted from the uptick in activity.

According to statistics provided by the World Bank, the total amount of public debt on the continent increased from \$352 billion in 2010 to \$702 billion in 2021. Despite the ongoing public health crisis and the accompanying economic downturn, countries across Africa spent approximately 20% of their GDP on debt servicing. (IMF, 2020) The ever-increasing total amount of public debt has a devastating impact on the cost of maintaining debt obligations. There are three primary contributors to the worrisome increase in total debt that has been incurred throughout the continent. These are the following: The consistent depreciation of the local currency relative to other currencies that are internationally traded, such as the US dollar and the Euro, as well as rising interest rates and rising levels of deficit financing are all contributing factors. Strong economic success in several of these nations over the last few decades has helped to slow down the visible rising trend in the debt-to-GDP ratio.

Despite this, the total rise in public debt has been much more obvious owing to the increasing interest payments. The World Bank performed research that found that African nations are plagued by inadequate infrastructure. These include bad road networks; unreliable energy; and inadequate transit networks, to mention a few. Nigeria, Angola, and Ghana have a lot of debt, which may be part of the reason why Africa has a lot of countries with high debt-to-GDP ratios (Sow, 2018).

According to Ojekunle (2021), the Paris Club cancelled Nigeria's debt in 2005, which resulted in a considerable reduction in Nigeria's public debt between the years 1999 and 2007. Despite this, Nigeria has swiftly accumulated more than \$39.7 billion as of December 31st, 2021.

Although an increase in public borrowing gives the government access to additional resources, Nigerians are generally concerned about the level of public debt in

comparison to the level of infrastructural development in their country. This is because the two factors are not proportional to one another. This research objective is to evaluate the effect of Nigeria's growing foreign debt on the nation's capacity to build its public infrastructure in a sustainable manner between 2011 and 2021. This disparity between loans taken and existing public infrastructure in Nigeria provides the impetus for this research.

When in contrast to the practice of producing new money or imposing excessive taxes on the entire population, which both have the potential to cause inflation in an economy, the majority of developing economies believe that borrowing money or taking on debt is a more effective way to finance deficit spending because it does not have this potential. Printing more money leads to an increase in inflation because it adds to the total amount of money in circulation, which has negative effects on the economy that will persist over the long term. In addition, important dangers to the nation's strong and sustained growth as well as its development include increasing taxes to levels that are unsustainable and lowering capital expenditures in an effort to decrease budget deficits. Both of these measures are used in an effort to minimize budget deficits (Fonseka and Ranasinghe, 2007).

In spite of the fact that these justifications showed that debt was a preferable method of financing, the fact remains that excessive government borrowing that exceeds the capability of the nation creates severe repercussions for an economy. The government borrows money from both domestic and foreign creditors in order to fund a larger budget deficit, which ultimately results in a greater level of overall indebtedness and a higher debt profile. In addition to this, the economy was compelled to take on further obligations in order to simply make the payments required to service the debt that was already owed. As a consequence of this, there is a risk that the nation may fall into a debt trap.

If the money is put to use in a manner that is both productive and efficient, then taking out loans may not necessarily have a negative impact on the economy. However, there is widespread opposition to government borrowing due to the fact that it can result in a problem known as a debt trap and put a country's development process in jeopardy. Borrowing by the government, for example, to pay off existing debt, fund current consumption, or cover ongoing expenditures might not be the best way to boost economic performance. On the other hand, the use of borrowed money to finance long-term development initiatives, increase capital expenditures, and intelligently

participate in productive company activity will lead to long-term economic growth. Unfortunately, a large number of developing nations, such as Sri Lanka, borrow money for the wrong reasons. This leads to a growing budget deficit and debt profile, a decline in investment, an increase in unemployment, a decline in national production, and a majority of the population living in poverty (Ogunjimi, 2019).

In the course of the history of Sri Lanka, beginning In the 1940s, the government made the decision to begin pursuing a strategy of deficit financing, which meant that the government's expenditures went above and beyond what the government earned. The most important effect of this strategy of the fact that Sri Lanka experienced such a significant budget shortfall after 1984 is the root of the problem with deficit finance. This deficit budget was caused by the policy of deficit financing. Since 1994, nominally speaking, the government's income has been insufficient to pay for the recurring expenditures of the Sri Lankan economy. This has resulted in an unsustainable budget deficit and a greater debt profile for the country. It has a direct effect on how resources are shared and how the economy as a whole work.

One of the most significant sources of funding for the government deficit is the nation's domestic public debt. When the government borrows more money the possibility exists that interest rates will climb as a direct consequence of the increasing demand for loanable funds from domestic banking sources. If interest rates go up, there will be more money available for private lending; nevertheless, it will be more challenging for the private sector to get loanable funds if the amount of money available for private lending also goes up. The national savings rate and the quantity of domestic investment are both expected to see a significant decline as a direct consequence of the budget deficit. The phenomenon that occurs as a result of the borrowing of money by the government from the domestic financial market is referred to as the "crowding out impact of public debt." Because of the crowding-out effect, private investment will instantly begin to decrease, which will be detrimental to the future the nation's economic expansion and progress.

In addition to this, it includes the practice of using government expenditure, taxation, and loans to impact the structure of economic activity in addition to the level and expansion of aggregate demand, output, and employment. Another example of this is the use of fiscal policy has the power to impact the structure of national economies. The manipulation of a government's revenue and expenditure levels is an example of fiscal policy, which is an aspect of government control of the economy.

This management's mission is to attain particular macroeconomic objectives (goals), one of which is faster economic growth, and their purpose is to achieve these targets (Medee & Nembee, 2011).

According to Anyanwu (1993), the objective of fiscal policy is to create economic conditions that are conducive to the expansion of businesses while simultaneously ensuring that any actions taken by the government are in line with the objective of preserving economic stability. As a consequence of all that we have gone through thus far, it is clear that fiscal policy, in the event that it is applied judiciously and in conjunction with other measures, has the potential to make business cycles less severe, which would result in increased economic growth and stability.

In general, fiscal dominance arises when decisions about fiscal policy are undertaken separately from those regarding monetary policy in an environment in which there are restrictions placed on the total amount of public debt that the general public may possess. This paves the way for the establishment of the conditions necessary for fiscal dominance to take place. As a direct consequence of this, the issue of budget deficits will sooner or later have to be addressed in order to meet the requirements of the budget restriction between the present and the future. In point of fact, when the size of the financial system is relatively small in comparison to the magnitude of the fiscal deficits, a centralized bank may be forced to magnetize the deficits in order to maintain financial stability. Because of this, monetary policy, which is the opposite of fiscal policy, is what we have today. In nations with weak financial systems, can only play an accommodating function since it is the inverse of fiscal policy. In nations with such low per capita income, the markets for government assets are not well established, and central banks do not own enough quantities of physical securities. Also contributing to the phenomenon of fiscal dominance is the fact that the central bank does not possess the proper and sufficient tools with which to exercise monetary management. When fiscal dominance is present, a nation's the quality of a nation's economic policy is directly proportional to the quality of its fiscal policy, and the autonomy of a central bank does not always imply the autonomy of its monetary policy (Oyejide, 2003).

There is no such thing as a sovereign nation-state; for any government to operate properly and efficiently, it needs assistance from other entities. Borrowing money from other countries, often known as External debt is recognized as one of the most important sources of financial aid. The reason governments, particularly

developing countries, take on external debt is that they do not have enough financial resources inside their borders, which results in a need for financial assistance from other nations.

This can be done by showing that a nation's development is a function of investment and that such investments need domestic savings. This is shown by the fact that the dual gap analysis shows that an investment is a function of a nation's development. This illustrates that progress is a function of investment (Oloyede, 2002). Because of this, the significance of a nation's total foreign debt on its rate of economic expansion is difficult to overstate. Borrowing money from other countries is something that, according to Hameed, Ashraf, and Chaudhary (2008), ought to be done in order to hasten economic progress. This is especially relevant when considering the money needs to be brought in from outside the country because there isn't enough money in the country.

One of the biggest contributors to the general public purse is the national debt. The buildup of foreign debt should not be read as meaning that there will be a slow improvement in the economy. It is a country's inability to satisfy its financial commitments, which is aggravated by a lack of understanding of the nature, structure, and amount of the country's foreign debt. This situation is known as "insolvency" (Were, 2001). According to Soludo (2003), governments often borrow money for one of two reasons: either for macroeconomic reasons, such as to encourage higher levels of investment or consumption or to avoid severely limiting budgetary constraints. This suggests that in order for an economy to make economic progress and fight poverty, it is necessary for the economy of that country to borrow money.

He asserted that indebtedness begins to have a negative impact on a nation once it reaches a particular tipping point and continues to rise over that point. The cost of debt repayment becomes enormous, and the nation finds itself on the wrong side of the debt-to-GDP curve. As a result, debt is squeezing out investment and growth, which can have a negative impact on economic growth. The already slow economic growth of Nigeria has been further hampered by the high cost of debt servicing, which has also contributed to an increase in the country's overall debt country's already-severe social issues much worse (Adu, 2004).

According to research conducted by Omoleye, Sharma, Ngusam, and Ezeonu (2006), Nigeria is the most financially burdened nation in the Sub-Saharan African region. The origin of the current level of Nigeria's external debt can be traced back to

1958 when the government made a request to the World Bank for a loan in order to fund the building of railroads. Between the years 1958 and 1977, the need for borrowing from other countries dropped a small bit. On the other hand, the decline in oil prices that occurred in 1978 had a substantial effect on the overall budget of the government and made it necessary to borrow money to fix problems with the balance of payments and pay for projects.

In 1978, a contract was established with the international capital market (ICM) for the first significant borrowing of one billion dollars in the United States; this type of loan is known as a "jumbo loan." Due to this, the total amount of money that was borrowed in dollars rose to 2.2 billion (Adesola, 2009). After then, there was a rise in borrowing, which coincided with the beginning of the state government's contractual responsibility to repay its foreign loans. After that, the state government began to fulfill its contractual commitment to repay its foreign debts. According to the numbers that were issued by the Debt Management Office (DMO), the amount of outstanding debt that Nigeria owed to its international creditors was N17.3 billion. In 1986, the World Bank and the International Monetary Fund (IMF) forced Nigeria to participate in a Structural Adjustment Program (SAP). This program was sponsored by the World Bank (IMF). The goal of the initiative was to restructure the economy in such a way that it would allow the government to better meet its financial responsibilities (Ayadi and Ayadi, 2008).

The widening gap between public spending and revenues, which is being caused by the rising cost of repaying foreign debt, is a significant obstacle that stands in the way of the nation's continued economic expansion. The country is at risk of having a heavy debt load as a consequence of having accumulated a huge amount of debt. Even though Nigeria is one of the wealthiest countries on the African continent, the majority of its population lives in abject poverty as a result of numerous macroeconomic issues. These issues include inflation, unemployment, complete reliance on crude oil exports as the country's primary Corruption, as well as an ever-increasing weight from external debt as well as payments for debt servicing. As a direct result of this, the purpose of this research is to evaluate the impact that Nigeria's external debt has on her economy using a comprehensive and empirical approach in order to come up with a conclusion that makes sense. The research's conclusions will be very important because they will lead to policy recommendations.

Without a shadow of a doubt, governments borrow money in order to close the budgetary holes that are left after subtracting their planned expenditures from their anticipated revenues throughout a certain time span of three months with regard to finances. Taking it for granted that the government is serious about preserving the status quo of the macroeconomic by printing more money and if the capacity of the government to raise taxes is limited, then the option of taking on debt is the only alternative that the government can pursue that will have any chance of success in order to provide individuals access to social capital. In general, governments resort to borrowing money in order to fund public goods, which boost overall welfare and are beneficial to economic development. The expenditure has to be paid for, and one of the options available is an increase in taxes, an increase in seignorage, or an increase in debt.

There are three arguments that might be made in favor of debt as an alternative to taxes or the creation of new money. To begin, debt supports tilting since it makes it possible for a nation to exploit investments with extended gestation periods in a more equal way. This is how tilting works. Second, through streamlining processes that lead to more effective ways of carrying out anti-cyclical policies or satisfying the requirements for emergency expenditure, these goals may be attained. Altering tax rates and brackets on a regular basis might result in efficiency losses and economic unpredictability. The third benefit of debt over taxes and seignorage is that it provides more stability. However, the obligation to repay the loan must be met. When money is borrowed, the payment of taxes is merely delayed.

Because of this, the application of the money and the returns generated in comparison to the amount that was borrowed become very important. Spending by the government on various forms of infrastructure has a track record of producing favorable results for the economy it also has the potential to contribute to quicker economic growth as well as the development of society more generally. Ariyo (1996), Adams and Bankole (2000), and Iyoha (2002) have all published their findings on the topic of the association between rising debt levels and growing economies in Nigeria (2001), but has not been able to demonstrate the mechanism by which debt may be growth encouraging. The issue that has to be answered is how and to what degree growth may be promoted by the use of borrowed cash in emerging economies like Nigeria. That is, without a doubt, the purpose of this piece of writing. With Nigeria as

a case study, the goal of this research is to find out if high levels of foreign debt can be good for the economy of developing countries.

External debt may come from inside a country, while internal debt may come from outside a country. It is possible to define external debt as debt that is due to non-residents, and the funds, goods, or services that are returned might be of a foreign currency (World Bank, 2004). Policymakers and scholars alike continue to be skeptical about the impact that a nation's foreign debt has on a nation's capacity to attract new investment and expand its economy. It is not completely known how the expansion of the economy is impacted by the accumulation of foreign debt. On the other hand, if a country takes on a considerable amount of debt, a sizeable portion of its public spending and benefits from gains in foreign currencies will be needed to service and repay the debt, which will result in significant opportunity costs wasted. The year 2005 for Albert, Brain, and Palitha, People who claim that having more foreign debt would be beneficial to the economy do so on the basis that doing so would increase capital inflow, which, when it occurs, would be beneficial to the economy. Those who make this point do so for the following reason investing in economically beneficial enterprises would speed up the rate of economic expansion. The influx of cash may be accompanied by management know-how, technology, or technical experience, in addition to access to overseas markets. The beliefs expressed above are consistent with those held by the Keynesian theory contends that the accumulation of capital is what propels the expansion of a nation's economy. Moreover, due to arrears, overhangs, and credit rationing issues, foreign debt may have a detrimental influence on investment (Eduardo, 1989). The phenomenon known as "debt overhang" occurs when significant resources are used for the purpose of debt payment, which impedes the expansion of the economy. It turns into a tax on domestic output, and the amount that is paid in response to that tax hinders significant economic development activities. This is because it limits the resources that are available to the government for implementing economic policies that promote growth.

When a nation is unable to pay its obligations, the impact of credit restrictions is felt across the economy. The government's decision on interest rates is expected to rise in order to reduce the savings-investment gap has an effect on new investment and results in a higher surplus that may be used for debt repayment and service. On the other hand, this might eventually dampen economic expectations for the future.

1.2 Statement of the Problem

In Nigeria's history, starting in the 1940s, the government started using a strategy called "deficit financing," which meant that the government spent more than it brought in. The most significant repercussion of this approach to deficit financing is that beginning in 1984, Sri Lanka has been plagued with an unsustainable level of fiscal deficit. Since 1994, nominally speaking, the government's income has fallen short of what is needed in order to pay for the country's continuous costs. This has resulted in an unsustainable budget deficit and a larger debt profile for the country. It has a direct impact on the manner in which resources are dispersed as well as the overall functioning of the economy.

Domestic public debt is the primary contributor to the federal deficit as a source of revenue (Fonchamnyo, Dinga, & Ngum, 2021). When the government borrows more money from domestic banking sources, the demand for loanable funds also increases; thus, there is a possibility that interest rates will go up as a result of this. Because of the rise in the private sector's usable cost when interest rates are high, it is more difficult for the private sector to get loanable money when interest rates are high. This budget deficit will have the impact of dramatically decreasing the level of national savings, which in turn will have the knock-on effect of reducing the amount of money spent on domestic investment. When the government borrows money from domestic financial markets, it may have a negative influence on those markets because it displaces private investment. This may happen when the government borrows money from domestic financial markets. In the long term, a country's economic growth and development will suffer if private investment is reduced as a direct consequence of crowding out. This will have a negative influence on the economy.

The ratio of a country's debt to its gross domestic product is a metric that is extensively reported and debated. When thinking about the present situation in Nigeria, it is essential to keep in mind that the country's public debt, which has been accruing for years, has now reached a much larger percentage than it did even a short number of years ago. This is because the debt has been piling up over time.

1.3 Purpose of the Study

The widening of the budget deficit, which is being caused by the rising cost of repaying foreign debt, is a significant obstacle that stands in the way of the nation's continued economic expansion. The country is at risk of having a heavy debt load as

a consequence of having accumulated a huge amount of debt. Even though Nigeria is one of the wealthiest countries on the African continent, the majority of its population lives in abject poverty as a result of numerous macroeconomic issues. Inflation, unemployment, exclusive reliance concerning the sizeable contribution that crude oil exports make to the country's overall income, the prevalence of corruption, and the steadily increasing cost of servicing external debt are among these issues. As a result, the purpose of this study is to investigate how Nigeria's external debt has impacted the country's economy. Her economy using a comprehensive and empirical approach in order to come up with a conclusion that makes sense.

1.4 Research Question

1. This inquiry focuses on how the country's massive debt service payments influence many sectors of the Nigerian economy, such as people's living standards, employment rates, exports, savings, and imports.
2. What is the structure of Nigeria's foreign debt; where did it come from; and what are the consequences?
3. What types of reasonable criteria are being applied to Nigeria's rising debt problem?
4. How Nigeria's external debt administration has handled its job of taking care of the country's foreign debt.
5. How exactly does Nigeria make her payments on her foreign debts?

1.5 Significance of the Study

Sanusi (2003) issued a warning that Nigeria's rising debt load is inhibiting economic growth and development because of the difficulties involved with the buildup of debt and the service of debt. When Campbell (2009) claimed that increasing government debt might rapidly become a burden on the economy, therefore weakening its base, he voiced a position that was pretty close to mine. He said that rising government debt could quickly become a burden on the economy. He issued a stern warning, stating that the government needs to comprehend that greater demands on unrealized future income also indicate increasing threats and that this should be understood by them. According to Campbell, the accumulation of debt is analogous to the accumulation of potential dangers. There was an a priori assumption that increased foreign debt would lead to increased economic growth. When the negative effects of

debt are talked about too much, people will develop a pathological fear of debt. This will cause people to avoid debt at a time when it would have helped the economy by bringing in money that is badly needed for investments and building up infrastructure.

As can be seen from the foregoing, there are a variety of perspectives regarding the effect impacts of international debt on the domestic economy. Consequently, it is necessary for policymakers to have a solid understanding of the effect that external debt has in order to reach a conclusion, it is necessary to acquire knowledge of the economy in several states of debt accumulation that are well-informed. This is the case because there are times and circumstances in which taking on debt is both desirable and essential, but there are also other instances when taking on debt should be avoided.

1.6 Statement of the Hypothesis

The following are some examples of null hypotheses that were used to drive this study:

H0: There is no relationship between external debt and GDP growth in Nigeria.

H1: There is a relationship between external debt and GDP growth in Nigeria.

H0: There is no relationship between saving and GDP growth in Nigeria.

H1: There is a relationship between saving and GDP growth in Nigeria

H0: There is no relationship between real interest rate and GDP growth in Nigeria

H1: There is a relationship between real interest rate and GDP growth in Nigeria

1.7 External Debt in Nigeria: Historical Perspectives

A report from the Federal Reserve's Debt Management Office, the history of Nigeria's foreign loans dates back to before the nation acquired its independence; however, prior to 1978, these loans were either small or inconsequential. The oil boom that occurred between 1970 and 1973 protected Nigeria. Despite this, Nigeria was awarded the "Jumbo Loan," the world's first money of one billion US dollars, from the international capital market amid the economic downturn that occurred between 1977 and 1978. This loan was used to fund various infrastructure projects. After the oil boom of the 1980s, there was a sense of economic buoyancy, which signaled a spending pattern that favored imported items and a relaxation of previously imposed laws as a consequence of decreasing oil prices. Additionally, there was a feeling of optimism about the future of the economy. The situation got worse because people

were importing things without thinking, the currency rates were too high, and people were overcharging for imports and undercharging for exports.

In 1982, the drop in oil prices was met by large external borrowing from the international capital markets by federal and state governments, with no intentional attempt to solve the core issue in the economy. At the time, the western world had extra loanable cash known as idle "Petro-dollars." These were given back to those countries in the form of loans under the guise of helping their economies grow. Nigeria's foreign debt increased by 73.96% between 1978 and 1980, and the value of the US dollar increased from 0.763 billion in 1977 to 5.09 billion in 1978 and then to 8.855 billion in 1980. (DMO). Nigeria's foreign debt was valued at US\$19 billion in 1985. External debt has reached more than US\$34 billion by December 2014. In 2005, as a result, the situation deteriorated to such a point, President Obasanjo said that Nigeria need debt relief since it was obvious that the country could not pay its bills. This was given the go-light in 2006. Arrears have begun to accumulate again, with debt standing at 10.317 billion USD as of June 2015. (Debt Management Office).

As the year 2000 came to a close, Nigeria's total external debt ballooned to a staggering 29.9 billion dollars US. All of these factors, including the decline in oil revenues beginning in the late 1970s, reliance on imports, rapid expansion in state expenditures, especially in capital projects, borrowing from the international community at non-concessional interest rates, and the presence of all of these variables, contributed to the development of trade arrears. As of 1986, over 85 percent of the total debt was comprised of short-term and medium-term loans. The aforementioned changes led to the bundling of debt servicing, thus aggravating the financial crisis. Furthermore, changes in interest rates have an impact on the amount of foreign debt stock.

1.8 Limitation

This study will focus on the effects that Nigeria's growing foreign debt has had on the general expansion of the country's economy between the years 1980 and 2020. The time period covered by this inquiry is from 1980 to 2020. During that time, it will cover the whole economy of Nigeria.

This research will focus on the Keynesian theory in relation to growing economic activity and international debt.

In the method that is being taken with this research, the data will be analyzed using the ARDL model.

1.9 Definition of Terms

Unemployment: A person is considered to be jobless if they are willing to put in the effort to find paid employment but do not currently possess a position in the labor market that pays them. The term "unemployment rate" refers to the proportion of people who are actively seeking employment but are unable to find it in the current labor market. In order to accurately determine the unemployment rate, it is necessary to first identify the labor force. People who are either now working or actively looking for work make up what is known as the labor force. The first thing that has to be done in order to figure out who is employed and who is jobless is to count the population. The next stage entails making specific practical judgments, such as defining the minimum amount of paid labor that a person must undertake in order to be considered to have a job.

External debt: The entire amount due to non-resident creditors is the external debt, expressed as a percentage of nominal GDP. The proportion of a country's overall debt that came from borrowing abroad is known as its actual current foreign debt (such as commercial banks, governments, or international financial institutions). Debtors can be anyone, from individuals to corporations to the government. The external debt is the total outstanding amount of domestic debt owed by domestic creditors to foreign creditors that are not considered contingent. The borrower has agreed to pay back the loan's principle and/or accrued interest at a future date or dates. It's common practice to use both "external debt" and "foreign debt" interchangeably.

Foreign debt stock: The portion of a nation's overall debt that was accrued via borrowing from entities outside of the country, such as private banks, public institutions, or international financial organizations, is known as external debt. These loans, together with any interest accrued, are often required to be repaid in the original currency that the loan was made. The country that needs money could try to make the money it needs by selling and exporting things to the country that is giving it money.

Economic growth: From one time period to the next, there is often a rise in the number of products and services that are produced and consumed by the economy. This is an example of economic growth. To evaluate it, one can choose to use either nominal or real (that is, inflation-adjusted) terms. Although alternative units of

measurement are used on occasion, historically speaking, the gross national product or the gross domestic product has been utilized in order to quantify the expansion of the economy.

Economic development: These are efforts are programs, policies, and actions that try to improve a community's economic well-being and quality of life. The neighborhood in which you reside will shape your understanding of what "economic growth" implies. Every town has its own unique combination of possibilities, obstacles, and top priorities. The people who live and work in the community need to be a part of the planning for the economic growth of the area.

CHAPTER II

2.0 Literature review

2.1 Conceptual literature

According to Hameed, Ashraf, and Chandhary (2008), there are many who feel that greater levels of foreign debt foster quicker economic development. These individuals hold the belief that higher levels of economic growth are stimulated by larger levels of foreign debt. This perspective is consistent with the neoclassical model of economic growth, which is also sometimes referred to as the Keynesian theory. According to this theory, the accumulation of capital is regarded as providing a stimulant for the expansion of the economy. In a similar vein, the Keynesian theory is compatible with this point of view. This was shown by the significant progress that was witnessed in the economies of the Asian Tiger nations of Malaysia, Singapore, Indonesia, and Taiwan, as well as in the country of Brazil, which is located in South America. These nations were able to effectively transform their economies by taking on new debt from other countries (Momodu, 2012).

Critics of high levels of external debt argue that, after a certain point, further debt accumulation becomes a drag on economic growth and no longer serves to spur development. Those who believe that a country's economy suffers from excessive amounts of foreign debt often point to this as a primary reason in support of their position (Elbadawi, Ndulu, and Ndungu, 1996). Furthermore, the need to make debt payments, sometimes known as the "crowding out" effect, limits the amount of money available for investment and development. The company's current and future are affected. The word "crowding out" describes a phenomenon that decreases the number of liquid assets. One may draw parallels between the way a mosquito uses its proboscis to suck blood from its prey and the process of paying off debt.

2.2 The Foreign Obligation of Nigeria: Some Historical Perspectives

The oil boom that occurred between 1970 and 1973 protected Nigeria. However, as a result of the economic downturn that occurred in 1977 and 1978, Nigeria obtained its first loan of one billion dollars from various finance markets throughout the world. This loan, which was used to fund a variety of various infrastructure projects, was given the label of the "Jumbo Loan," which was also its name. After the oil boom of the 1980s, there was a sense of economic buoyancy, which

signaled a preference for imported products and a relaxing of spending habits. This desire for imported goods signaled to loosen of spending habits of restrictions that had previously been put into place because of the decline in oil prices. Things got worse because people imported things without thinking, there was a system of inflated exchange rates, invoices for imported goods were too high and invoices for exported goods were too low.

The decline in oil prices in 1982 was met by huge amounts of external borrowing from the international capital markets by both the federal government and state governments. This was done without any intentional attempt to solve the primary issue facing the economy at the time. During that time period, the western world had an abundance of extra loanable cash that was known as idle 'Petro-dollars.' They were re-used and given out as loans to these countries under the guise of helping them get more money so that their economies could grow. Between 1978 and 1980, Nigeria's foreign debt increased from US\$ 0.763 billion, which was the level in 1977, to US\$ 5.09 billion, which was the level in 1978, and US\$ 8.855 billion, which was the level in 1980. (DMO). In 1985, Nigeria's total foreign debt amounted to \$ 19 billion US. As of December 2014, the total foreign debt was more than \$34 billion USD.

As a result of this trend, President Obasanjo of Nigeria called for debt relief in 2005, despite the fact that it was abundantly evident that the country was unable to both services and pay off its obligations. This was approved in the year 2006. Once again, debt has begun to accumulate, and as of June 2015, it had reached a total of 10.317 billion dollars in the United States (Debt Management Office). The total foreign debt is the amount of money, products, or services that are owed to non-residents and has to be repaid. The amount of a country's public, all forms of debt, both long-term and short-term, both governmental and private, guaranteed and unguaranteed and credit obtained from the IMF, constitutes its total foreign debt. All debts with an initial duration of one year or less, in addition to the interest that is accrued but not yet paid on long-term debt, are considered to be a speedy repayment required for the loan. The amounts are shown in current-day United States dollars. The foreign debt of Nigeria in the year 2020 was estimated to be \$70,570,530,053, representing a 17.53% rise from 2019.

The foreign debt of Nigeria for the year 2019 was 60,047,046,402 dollars, representing a 10.78% rise over 2018.

The foreign debt of Nigeria for the year 2018 was \$54,202,577,785, representing a rise of 18.4% from 2017.

In 2017, Nigeria owed \$45,780,013,170 to other countries. This was a 28.17% increase from the year before.

2.3 Theoretical literature

The Keynesian idea of expanding government action as a stimulus to economic development was judged to be the most suitable economic theory out of the several economic theories that currently exist. The well-known British economist John Maynard Keynes was the source of inspiration for the concept that now bears his name. The idea that active government involvement is required in order for an economy to thrive while being stable serves as the conceptual underpinning for this argument. Keynesian economists hold the view that actions taken in the private sector might sometimes result in macroeconomic results that are inefficient. Production will remain relatively stable as a result of these activities throughout the economic cycles. Keynes proposed that in times of economic downturn, a combination of two strategies should be implemented: a cut in interest rates (a kind of monetary policy), and increased public investment in the nation's physical infrastructure (fiscal policy). Both monetarists and Keynesians share the belief that aggregate demand may be influenced by changes in fiscal and monetary policy (Blinder, 2008). Under the monetary policy, the Central Bank of Nigeria (CBN) is obliged to lower the interest rate it charges commercial banks, and commercial banks are also expected to lower the interest rate they charge their own clients. Both of these requirements are in accordance with the monetary policy. The injection of funds into the economy that results from government spending on infrastructure projects creates new business possibilities, jobs, and consumer demand. External borrowing may be one source of funding for infrastructure development during periods of fiscal deficit.

This finding lends credence to Keynesian theory, which holds that investing more money in the economy will hasten its growth, supports the use of foreign loans because of the positive effect on the economy. This is because Keynesian theory views

capital accumulation as a stimulant to economic progress, which in turn increases economic activity, which ultimately results in growth. As a result, it provides support for the idea that there is a positive link between economic development and foreign debt.

Many theories have been put out by academics in an attempt to comprehend the issue of foreign debt. The theory states that investment, which needs domestic finances, is a function of development and that such investment is inadequate to ensure development. A sum equivalent to the amount saved that may be invested in any country must be available for purchase from outside.

Additionally, if resources inside the country need to be supplied from outside sources, such as via an increase in imports relative to exports ($M > E$),

$I - S - S - EA$ $I-S$ thus equals $M-EA$. An imbalance between investment and domestic saving is the same as a trade surplus in terms of national revenue. Expenditures plus imports plus savings equals income. The total of domestic spending, foreign trade, and overseas investment Input is proportional to output Money in equals money out.

Import-Export = Investment-Saving

The concept of the "dual gap" is based on this idea, and it indicates that a nation needs substantial levels of both importing and saving to progress at a certain savings-investment gap exists when private savings fall short of what is required to provide the degree of economic expansion envisaged. For the same reason, an export-import-of-origin exchange gap exists when more exports are generated than are imported to satisfy the growth aim.

According to the debt overhang hypothesis, a country's predicted debt payment would rise in direct proportion to its rising level of production if its debt is expected to increase faster than its capacity to repay it in the near future.

As a consequence, a portion of the gains on investments produced within the domestic economy is basically "taxed" away by present foreign creditors, which inhibits investment on the part of local investors as well as future foreign investors (Claessens, 1996). Since a percentage of any rise in output and exports will be utilized to pay off the country's foreign debt, a debtor nation will only profit proportionately from any growth in these two variables.

According to this notion, a reduction in debt will result in improved investment and repayment capabilities, and as a consequence, the proportion of the total debt that has not yet been returned will have a larger probability of being reimbursed. The debtor is

regarded to be on the "wrong side" of the debt Laffer curve when this influence is considerable.

Debt may be preferred over taxes or printing more money for three reasons. As a first step, national debt makes it simpler for a country to take advantage of investments with long gestation periods in a manner that is more equitable for the population as a whole. Second, by putting in place a system that makes it easier and faster to carry out counter-cyclical measures or meet the needs of emergency spending. Losses in productivity and economic unpredictability might result from taxes being changed too often an further advantage of debt over taxes and seigniorage is the stability it provides.

However, the obligation to repay the loan must be met. When money is borrowed, the payment of taxes is merely delayed. Because of this, the application of the money and the returns generated in comparison to the amount that was borrowed become very important. When the government makes investments in infrastructure, such investments have the potential to contribute to more rapid economic expansion and the development of society (Were, 2001; Soludo, 2003; Ogunmuyiwa, 2011). The effects of arrears do not only have an adverse effect on investments in physical capital; rather, they have an adverse effect on any activity that requires investing expenditures up front for the purpose of increasing production in the future. This makes the scope of the debt overhang considerably more expansive. These kinds of A few examples of activities include making investments in human capital (such as via education and healthcare) and purchasing technological advancements may have impacts on growth that become even more pronounced over time.

2.4 Empirical literature

2.4.1 GDP growth and external debt

There are a profusion of empirical research on the link between foreign debt and economic advancement in the academic literature of both industrialized nations and developing countries. These countries are in different stages of economic development. In principle, the global interest rate for developing nations ought to be higher than the marginal production of capital. This is the case if the rate is to attract investment. This is what should be anticipated on the basis of the theoretical assumptions. As a consequence of this, governments who find themselves in such a predicament would gain by borrowing money from other countries (Eaton, 1993).

However, a nation's foreign debt does not in any way assist the country realize its potential; rather, it only helps the country be exploited. The one and only rule that has to be followed is that the rate of return on investment needs to be higher than the marginal cost of borrowing if one is operating on the premise that the loan will be repaid (Indermit and Brian, 2005).

According to the findings of the research, a considerable negative influence on investment rates is caused by a debt overhang as well as diminishing foreign capital flows. Deshpande (1997), following in the footsteps of Savvides (1992), made an effort is made to comprehend the concept of debt overhang via the conduct of an empirical investigation of the investing practices of thirteen nations that are burdened with a large amount of debt. The author of this paper asserts that debt-ridden nations are affected by the adjustment measures taken by indebted countries because investor panic has frequently led to a developing problem for the highly indebted nations. The author of this paper also claims that indebted countries are affected by the adjustment measures taken by indebted countries. The author of the paper argues that indebted countries have an impact on the adjustment measures adopted by severely indebted countries. According to the results of Bauerfreund (1989), Turkey's investment levels dropped in 1985 as a result of the promises made by the nation to pay down its foreign debt. He said that both local and international economic policies are to blame for the debt overhang.

Cohen (1993) used the OLS technique to estimate an investment equation for 81 different developing nations over the course of three different sub-periods. The author shows that the amount of debt can't be used to explain why investment is going down in highly stressed emerging countries.

Warner (1992) used the Least Squares estimate method to try to determine the amount of the influence that the debt crisis had on investment from 1982 and 1989, for a total of thirteen less developed nations. According to him, falling export prices, rising global interest rates, and the slow development of affluent nations are all factors that are contributing to the downturn in investment in many severely indebted countries. All of these factors contribute to a global economic environment that discourages investment. Rockerbie (1994) pointed out several flaws in Warner (1992), which the author condemned. Rockerbie (1994) applied OLS to each of the findings and showed that the debt crisis of 1982 had substantial repercussions, including a sharp decline in domestic investment in less developed nations, across all 13 countries

during the study period of 1965–1990. This decline in domestic investment in less developed nations was one of the consequences that were uncovered. The sample period for this study was 1965–1990. In a follow-up study to Afxentiou (1993), and Afxentiou and Series (1996) investigated 55 developing nations that were having trouble meeting their debt payment obligations. The purpose of the research was to determine whether or not there was a connection between taking on debt from other countries and increasing levels of production between the years 1970 and 1990. According to the findings, throughout the years 1970-1980, the link between national indebtedness and national production was not a deteriorating one. This was the case. They said that the developing nations had made the most comfortable use of foreign loans in order to soften the shock caused by the rise in the price of oil. However, the debt crisis and debt overhang of the 1980s and 1990s, which is when debt forgiveness and rescheduling first started, impeded the economic progress of a number of different countries.

The research demonstrates, via the use of a measure of debt load, that the direct impact of the debt hypothesis demonstrates that the falling marginal productivity of capital contributes to a negative influence on GDP. In addition, the study shows that countries with high debt levels often have lower annual GDP growth of around one percent. Using an improved production function, Fosu (1999) studied the impact of external debt on economic growth in sub-Saharan African countries from 1980 to 1990. The years 1980–1990 were included in this analysis. The author analyzed whether or not foreign debt hinders economic growth and found that it does, showing a negative coefficient in its link to expansion.

Cunningham (1993) conducted research on the relationship between a country's amount of debt and its rate of economic development in 16 countries with large debt between the years 1971 and 1987. According to the findings of the research, a nation's increasing level of debt load had a detrimental impact on economic development over the years 1971 through 1979.,

Smyth and Hsing (1995) studied how the national debt affects economic expansion and determined whether there is a maximum sustainable debt level. A debt-to-GDP ratio of 38.4 percent was shown to be correlated with the highest GDP growth rates. According to the results, role played by the national debt in the expansion of the economy changed over the 1980s and early 1990s. At the start of the 1980s, the

debt ratio went up, but it stayed below 384, which shows that debt financing doesn't slow down the growth of the economy.

A good number of other scholars are of the opinion that the Relationship between debt and economic expansion is crucial. According to the findings of Essien and Onwioduokit (1998), who studied the impact of foreign borrowing on expansion, the degree to which growth in Nigeria reacts to external money is elastic. This was discovered as a result of the researchers' investigation into monetary expansion is a result of external debt. This was one of the findings that they obtained. Therefore, in order to foster expansion within the economy, the government need to only put into practice debt management strategies that are effective.

The weight of a country's debt and the debt payment that follows as a direct consequence of that debt puts a constraint on the economy in the form of insufficient foreign money to support the purchase of the raw materials and capital goods that are essential for economic progress. This results in a situation in which the economy is unable to make the progress that is necessary to advance economically. The concept of "debt overhang," which asserts that the weight of accumulated debt has a negative impact on the pace of private investment, is another significant limitation that must be taken into consideration. The amount of debt that is still outstanding acts as a tax on the anticipated resources and productivity in the future. Because of this, private investment is hindered, which in turn slows down economic growth.

The crowding out affect that debt has on service payments has been explored in research such as Sach's (1986), and this information has been used to establish a theoretical explanation for the effect of debt overhang. They believe that a large number of nations with low incomes and high debt levels often use their governments' foreign currency reserves to pay for required debt servicing payments. The repercussions of the debt relief that was granted to a number of African countries are now a source of worry for policymakers. According to Burnside and Fanizza (2004), this debt relief project is unique in comparison to other large-scale debt relief initiatives because it requires the reallocation of funds that were previously allocated to activities that aimed at alleviating poverty.

This is done in order to reduce the amount of debt that is owed. This viewpoint, on the other hand, has to be taken into consideration with extreme care due to the fact that many nations in Africa are faced with specific challenges that may hinder the average African from realizing the benefits of a decrease in debt. This is an important

consideration that has to be given. For example, in Nigeria, rather than experiencing a great sense of debt relief, the quality of life of an ordinary Nigerian has worsened as a result of the rising costs of essential commodities and the developing shortages of food. This is because of the combination of factors described in the previous sentence. The fact that the government has received assistance in dealing with its debt does not change the reality that this is the case.

According to the results that Iyoha (2000) obtained, a decrease in debt stock of 75% would have resulted in an increase in the investment to GDP ratio of 8.6%, as well as an increase in GDP of 7.8%, while also resulting in a drop in the debt to GNP ratio of 65%.

Without a shadow of a doubt, a decrease in debt is anticipated to stimulate economic development. In research that was carried out by Chauvin and Kraay used a sample of 62 different nations to determine the degree to which a decrease in debt stimulates governments to begin social investment in low-income countries (2005). They come to the conclusion that the marginal advantages of debt reduction may differ from area to region, which means that it may be more helpful in certain regions than in others. Between the years 1985 and 2003, Lora and Olivera (2006) investigated the impact that a growing national debt has on the availability of social services. They came to the conclusion that debt stock, and not debt service, was the primary factor in causing the outcome. They argue, and the evidence tends to back them up, that loans from multilateral organizations do little to alleviate the adverse consequences of debt on social expenditure. This is because multilateral organizations prefer to lend large sums of money. After receiving help, debt-free governments in Africa would need to spend twice as much money in the social sector if the results of Lora and Olivera (2006) are to be applied to the continent (Dessy and Vencatachellum, 2007).

Evidence from the research carried out by Dessy and Vencatachellum in 2007 suggests, on the other hand, that once debt relief is provided, a government with a large discount factor is more likely to consume its funds than to invest them. This is especially true for the vast majority of developing countries, which have a high tendency to import as a whole.

These results are in line with the arguments made according to Cooper and Sachs (1985) and Arslanalp and Henry (2004), who claim that the issue that debt-free nations confront is a lack of strong institutions, the problem that debt-free countries face is a lack of robust institutions. If the present trend continues, the recently

suggested strategy to reduce debt will not be successful in achieving its goal of increasing expenditure in these nations that is conducive to economic development. This is the case since there is nothing that can be done to change the existing situation. Studies conducted by Cohen (1995), Bovensztem (1990), Elbadawi et al. (1997), and Patillo et al. all came to the same conclusion. (1998), have all come to similar conclusions about the link between debt and growth. Only a few other studies, like Savvides (1992) and Dijkstra and Hermes's study, did not discover a substantial influence of debt on economic development (2001).

To determine whether or not a correlation exists between debt and economic growth, Afxentiou and Serletis (1996) conducted a Granger causality test on a group of 55 heavily indebted countries. Their investigation into the connection between foreign debt and growth led them to the conclusion that there is no correlation between debt and income. The experimental findings suggest that debt has little to no role in rising standards of living. Therefore, if foreign resources are transformed into inputs, they may promote economic expansion. This is because economies under debt cannot afford to stop expanding without access to more financing.

The Granger causality test was used by Amoateng and Amoako (1996) to investigate the connection between development and foreign debt for 35 different African nations. The results show that there is a one-way cause-and-effect link between paying off debt and growing the economy, and that this link is good. By analyzing the correlation between high levels of foreign debt and poor economic development in seven Asian countries between 1970 and 1988, Chowdhury (1994) sought to address the issue raised by Bullow and Rogof (1990).

Bullow and Rogof (1990) argued that foreign debt among emerging countries is more of a symptom than a cause of economic slowdown, however Granger causality tests reveal that this is not the case. The findings indicate a bidirectional relationship between debt and economic growth in both Malaysia and the Philippines, as well as a feedback loop between the two variables.

Turkish economic growth and foreign debt were both examined by Karagol (2002), who looked at the years 1956–1996. Data from a Granger causality test showed that debt directly affects GDP growth.

The methods via which foreign debt affects growth were investigated by Pattillo, Helene, and Luca (2004). They were especially curious in the potential effects of debt on growth as measured by either factor accumulation or increases in total factor

productivity. Additionally, it looked at the prospect of nonlinearities existing between debt and the main drivers of economic growth. In all, 61 different developing countries were studied during the course of the study's 1996–1998 duration. The results show that a high debt level hinders economic development since it has a major and negative impact on the accumulation of physical capital and on the overall component of productive growth.

In their study of 35 African countries, Amooteng and Amoako (1996) found that those with the highest amounts of foreign debt also had the slowest rates of economic development. The Granger causality test was used for this purpose. The results show a positive and unidirectional causal relationship between economic expansion and debt repayment. Research on the impact of Nigeria's foreign debt on GDP growth was undertaken by Sulaiman and Azeez in 2012. The ratio of foreign debt to exports, inflation and a proxy for the exchange rate were employed to quantify economic growth, with GDP serving as the endogenous variable. The time period for which data was gathered is 1970-2010. The data was analyzed using ordinary least squares, a standard econometric technique. Results showed that Nigeria's economy profited greatly from its foreign debt.

Similar research was conducted by Bamidele and Joseph (2013), who looked at how the financial crisis and the handling of foreign debt affected Nigeria's economic development. The endogenous variable was gross domestic product (GDP), while the exogenous variables were FDI, external debt, external reserves, inflation, and proxy exchange rates. For this analysis, yearly data from 1980–2010 was compiled. The study employed three statistical methods: the Ordinary Least Squares (OLS) test, the Augmented Dickey Fuller (ADF) unit root test, and the Granger causality test. Results demonstrated that FDI aided in economic expansion. Economic expansion was found to be inversely related to the level of external debt a country had.

Borrowing is one way for countries that are facing fiscal deficits, particularly emerging countries, to increase their economic development.

In general, the government resorts to borrowing money in order to support public goods, which boost both welfare and economic development (Ogunmuyiwa, 2011). When the available financial resources at home are insufficient, it may be necessary to borrow money from institutions located in other countries. Money a nation has in total has gotten from outside sources is called its "external debt." Nigeria's external debt is comprised of contributions from a variety of parties,

including multilateral organizations, creditors from the Paris Club and the London Club, holders of promissory notes, and foreign creditors. Every country uses this tried-and-true way of replenishing its financial resources, which consists of taking out loans from other countries (Ayadi and Ayadi, 2008).

When a nation takes on debt from other nations, it does so with the intention of making a sizeable and favorable contribution to the economy as a whole. However, future payments on existing debt constitute a challenge to the expansion of the economy. Since the turn of the century, academics and economists have carried out a plethora of studies with the objective of determining the effect that foreign debt has on the progression of economic growth.

The impact of Nigeria's and South Africa's massive foreign debt and the responsibilities connected with servicing it on economic growth was studied by Ayadi and Ayadi (2008). The neoclassical growth model was analyzed using both the Ordinary Least Square (OLS) and Generalized Least Square (GLS) methods. External debt, debt indicators, and neoclassical growth are not the only inputs into this model; other macroeconomic variables are also taken into account

The study concluded that for both Nigeria and South Africa, increasing levels of debt and the associated costs hampered the countries' ability to grow economically. Using time series data from 1970 to 2007, Ogunmuyiwa (2011) investigated the impact of Nigeria's external debt on GDP growth. The data collection and analysis period included 1970-2007. In order to determine an appropriate regression equation, a number of econometric tests were used. These included the Augmented Dickey-Fuller test, Granger causality test, Johansen cointegration test, and the Vector Error Correction Method (VECM). The findings indicate that a rise in foreign debt is not related to the expanding economy in Nigeria.

Adesola (2009) conducted empirical research to see if the method by which Nigeria pays its foreign debt service commitments affected the growth of the country's economy. The relationship between gross domestic product, gross fixed capital formation, and payments to multilateral financial creditors, Paris club creditors, London club creditors, holders of promissory notes, and other creditors was analyzed using Ordinary Least Squares in a multiple regression study from 1981 to 2004. (GFCF). There was much research into the possibility of a connection between them. A significant negative correlation was established between payments to creditors in the London club and other creditors and GDP and GFCF, while payments to creditors

in the Paris club and holders of promissory notes were positively correlated with both measures of economic growth. Between 1970 and 2002, Audu analyzed how Nigeria's external debt affected the country's economic growth and public investment. (2004) this empirical study made use of the cointegration test and the error-correction method. According to available data, the country's economic process has been significantly impacted by the accumulation of debt over the years, which has hampered public investment.

Using time-series data from a variety of bilateral and multi-lateral agreements, Adepoju, Salau, et.,al Obayelu (2007) investigated how the management between 1962 and 2006, Nigeria's economic growth was affected by the country's mounting foreign debt. Their study covered the period between 1962 and 2006. Based on what they learned, they came to the conclusion that a rise in Nigeria's foreign debt hurts the country's economic growth.

Empirical research that is not applicable to Nigeria is also assessed so that evidence from other countries may be presented. From 1970 to 2006, Choong, Lau, Liew, and Puah (2010) studied the correlation between the accumulation of different loan types and the growth rate of the Malaysian economy. The researchers concluded that all facets of debt had a negative effect on long-term economic growth after conducting a test called a cointegration study. All indicators of debt are causally related to GDP growth, as shown by the Granger causality test in the short term. This linkage is present in the short run. Between the years 1978 and 2001, Abdelmawla and Mohammed (2005) conducted research to determine how the development of Sudan's economy was affected by the country's level of foreign debt. The research found that export expansion of the Sudanese economy is greatly aided by income, but is stunted by foreign debt and inflation.

Karogol (2002) looked explored the short- and long-term correlations between economic development and Turkey's ability to pay off its foreign debt from 1956 to 1996. Several different multivariate cointegration techniques were utilized to analyze data from a standard production function model. Estimates based on the Vector Autoregression method demonstrated the presence of a single cointegration equation. Also, it was shown that, in the long run, paying off debt hurts sustainable development. The Granger causality test was used to establish the direction of connection between debt repayment and economic growth. Clements, Bhattacharya, and Nguyen (2003) conducted research to determine the impact of foreign debt on economic development

in countries with low per capita income. They determined that a reduction in the stock of foreign debt for heavily indebted poor countries would lead directly to a one percentage point rise in annual per capita income growth (HIPC). Reducing interest payments on foreign debt may influence public investment, which in turn may encourage economic growth.

From 1972 to 2005, Malik, Hayat, and Hayat (2010) employed a time series econometric approach to analyze the relationship between Pakistan's external debt and economic growth. An important issue was Pakistan's economic predicament. High levels of foreign debt are significantly correlated with lower rates of economic growth, according to their analysis. Increasing overall foreign debt has been shown to reduce economic growth. Previous study by Hameed et al. (2008) looked at the connections between economic growth and Pakistan's massive external debt over the course of many decades. China's GDP, debt service, capital stock, and labor force were all tracked on an annual basis from 1970 to 2003 so that the interplay between these variables could be studied.

Paying down debt reduces economic growth by dampening both labor productivity and capital productivity. Using data that is five years averaged between 1970 and 2002, in their 2004 study, Alfredo and Francisco analyze the linear and nonlinear debt-development relationships for 59 developing and 24 developed nations. They utilize this data to investigate the connection's linear and nonlinear characteristics.

To be more precise, Shkolnyk and Koilo (2018) analyze the relationship between rising levels of external debt and rapid economic development in emerging nations between 2006 and 2016. The authors implement something called autoregressive distributed lag modeling (ADL). They draw the following conclusions: (1) there is no linear relationship between foreign debt and the dynamics of GDP in emerging nations; and (2) the effect of these two variables is minor.

There is a strong correlation between the strength of an institution's framework and its ability to effectively manage external debt and the extent to which an economy is able to make efficient use of external resources. Ekpe (2020) analyzes how Nigeria's massive external debt has impacted GDP expansion. The empirical estimate in this research is calculated with the use of the autoregressive distributed lag technique. Total external debt is found to have a positive and statistically significant association with GDP. Nonetheless, the ratio of foreign debt to exports is statistically significant,

and this has a negative impact on GDP. The study's results also suggest a link between Nigeria's external debt and the country's pace of economic growth over time. The error correction number also indicates that the dependent variable will shift by 67% of the change in the independent variables at each time point. The numerical value indicates this data.

The increasing external debt of Nigeria is not causally related to the expansion of the Nigerian economy, according to the Granger Causality test. For the period between 2000 and 2018, The connection between a nation's external debt and its GDP growth rate is the subject of study by Mumba and Li (2020). According to the findings, high levels of unsecured foreign debt are detrimental to economic expansion. Long-term foreign debt has been shown to negatively correlate with economic growth, but only in the short-term.

The relationship between external debt and economic development is a hot topic in both the developed and the developing world's academic literature. In an effort to quantify the impact of debt overhang on economic performance, Savvides (1992) used a Two-Stage Limited Dependent Variable (2SLDV) approach to evaluate cross-sectional time series data from 43 less developed countries (LDCs) experiencing debt concerns. He came to the conclusion that investment rates had plummeted due to the country's mounting debt and the dwindling influx of foreign money. Using the OLS technique, Fosu (1996) examined the relationship between GDP growth and external debt in sub-Saharan African nations from 1970 to 1986.

The study considered the concept of debt from both a short-term and a long-term perspective. Using a metric for total debt, the study proves that the direct effect of debt theory proves that a decline in the marginal productivity of capital has a deleterious effect on GDP. The data also reveals that nations with high levels of debt have slower-than-average GDP growth, on average by roughly 1 percentage point every year.

Karagol (2002) analyzed the relationship between the Turkish economy and its foreign debt from 1956 to 1996, taking into account both the short-term and long-term effects. Through the use of multivariate co-integration methods, a standard model of the production function was analyzed.

According to the estimates obtained using the Vector Auto regression model, there is just one cointegration equation. Furthermore, it was shown that debt service had a deleterious effect on economic growth over the long run. Debt reduction and

economic expansion were shown to have a unidirectional causal relationship, as evidenced by the test for causality.

To learn how low-income countries' foreign debt affects economic growth, Clements et al. (2003) studied the topic. According to their findings, highly indebted poor countries (HIPC) may anticipate a one percentage point rise in yearly growth in per capita income if they reduce their estimated foreign debt by a significant amount cutting down on interest payments on foreign debt may indirectly stimulate economic expansion by influencing public investment.

A time series econometric approach was used by Malik et al. (2010) to study the correlation between Pakistan's external debt and the growth of the country's economy from 1972 to 2005. Strong and unfavorable correlations were found between high levels of external debt and economic expansion.

Information suggests that a decline in economic growth will follow an increase in total foreign debt. Several researchers have found that empirical studies of the relationship between debt and economic development in Nigeria are relevant.

Audu (2004) looked at how Nigeria's substantial foreign debt affected economic growth and government investment from 1970 to 2002. This empirical study employed the co-integration test and the error-correction strategy. The findings of the study show that the cost of debt payment in the country has had a significant and negative impact on the growth process, and that rising debt levels tend to reduce government spending.

Ayadi (2008) looked at how massive amounts of foreign debt and the responsibilities connected with servicing it impacted economic growth in Nigeria and South Africa. The Neoclassical growth model was examined using both the Ordinary Least Square (OLS) and Generalized Least Square (GLS) methods. In addition to foreign debt, debt indicators, and neoclassical growth, this model incorporates a number of other macroeconomic variables. The study concluded that for both Nigeria and South Africa, the rising cost of debt and the funds required to service it hampered economic growth. When looking into whether or not foreign debt aids economic growth in Nigeria, Ogunmuyiwa (2011) analyzed time-series data from 1970 to 2007 to get his conclusions. The regression equation was estimated using a number of different econometric tests, including the Vector Error Correction Method (VER), the Granger causality test (GCT), the Johansen co-integration test (JCT), and the Augmented Dickey-Fuller test (DCF) (VECM). These findings disprove the hypothesis that a rising trade deficit is related to Nigeria's burgeoning GDP.

The effects of Nigeria's massive external debt on the country's expanding economy are studied by Sulaiman and Azeez (2012). In order to conduct the empirical study, we used Ordinary Least Squares (OLS), Augmented Dickey-Fuller (ADF) Unit Root, Johansen Co-integration, and the Error Correction Method (ECM). Nigeria's high amount of foreign debt has helped the economy, according to the error correction technique. The findings suggest that maintaining fiscal and political stability should be among the government's top priorities. The primary motivation for taking on additional foreign debt should be financial, not social or political.

As was previously stated, most empirical research has methodological problems in that they tend to ignore the non-stationarity of time series data. This is a problem that affects empirical studies. This is the case even though it is often believed that working with non-stationary variables might lead to erroneous regression results.

2.4.2 Real interest rate and GDP growth nexus

The McKinnon-Shaw theory and the neoclassical growth framework, which are both included in the growth literature, accept the association between rising interest rates and expanding economies. According to McKinnon Shaw (1973), for example, the genuine rate of development slows down as a result of financial repression, which may be defined as the indiscriminate distortion of financial pricing such as interest rates. [Citation needed] One of the most distinguishing characteristics of the McKinnon-Shaw model is that it has an investment function that responds negatively to the effective real loan interest rate while responding favorably to the growth rate.

The McKinnon-Shaw school of thought contends that reducing the number of regulations imposed on financial markets would, in the short and medium term, have a stimulative effect on the rate of economic expansion. Albu (2006) conducted research on the influence that investment has on the development of GDP as well as the link between interest rates and investment in the Romanian economy. He did this using two partial models.

Werner's (1994) study found that concentrating on quantity factors rather than price variables (interest rates and interest differentials) was the most effective way to describe a model of capital flows (the quantity of credit creation).

According to the findings of studies conducted by Melvin (1983) and Leeper and Gordon (1990), there is not a lot of evidence to suggest that interest rates have a "liquidity impact" on the money supply (1992).

The "price problem" is a term that refers to the positive association between interest rates and inflation, and it is mentioned in a number of scholarly publications (originally found by Sims, 1992; see also Hanson, 2004). In a sample of nations, King and Levine (1993) searched for evidence that real interest rates were connected to economic development but came up empty. They concluded that there was no correlation between the two.

Macroeconomic variables like consumption and investment show only a limited correlation with real interest rates, according to research by Taylor (1999). From 1950 through 2000, real U.S. GDP increased in lockstep with interest rates, as reported by Kuttner and Mosser (2002). Dotsey et al. (2003) conducted research on real interest rates and found that there is a positive association between real rates and slack in cyclical production. This was one of the findings of their study.

According to the Department of Commerce, interest rates are neither regarded "leading indications" nor "coincident indicators." Instead, they are called "coincident indicators." On the other hand, it considers interest rates to be a lagging signal of economic expansion (a point that proponents of the interest paradigm overlook).³ Last but not least, there is the case of Japan, where interest rates have been steadily lowered for over twenty years (since 1991) and have lately dropped into negative territory, yet this has not had an appreciably beneficial impact on the country's gross domestic product (GDP). Because of this, almost every existing macroeconomic theory has been shown to be substantially flawed (see Werner, 2003, 2005, 2006).

2.4.3 Gross domestic saving and GDP growth

Sajid and Sarfraz (2008) used quarterly data from 1973:1 to 2003:4 to study the correlation between savings and production in Pakistan. Savings and production are found to have a long-term, symmetrical relationship by the application of co-integration and vector error correction techniques. Long-term causality was also shown between government savings and output (GNP and GDP) and private savings and GDP (GNP).

Even more so, Pakistan's long-term results back with the capitalist argument that savings rates come first in determining overall output levels. The study also demonstrated the unidirectional short-run causality between GDP and national and domestic savings, with public saves being directly proportional to GDP. Additionally, it was shown that national savings and GDP had a short-run link (GDP). Last but not

least, the aggregate results over a very short time period corroborate the Keynesian assumption that savings are depending on output level.

This article reviews the research of Agarwal (2001) on the correlation between GDP and saving in a selection of Asian countries. The author found that in most nations, savings rates were directly proportional to GDP.

When Sinha and Sinha (1998) of Mexico employed econometric methods to examine the relationship between the national saving rate and economic development, they found no significant relationship. The data does not support the claim that higher savings rates result in faster economic expansion. The authors conclude that increased economic growth encourages savings.

For a group of 18 Latin American and recently industrialized countries, Saltz (1999) looked at the connection between savings and real output growth rates between 1960 and 1991. As the author found, faster actual output growth also means faster savings increase. Anoruo and Ahmad examined the link between increased household savings and economic expansion in seven African countries (2001). Congo, Côte d'Ivoire, Ghana, Kenya, Nigeria, South Africa, and Zambia were the nations in question.

CHAPTER III

3.0 Methodology

3.1 Introduction

More discussion is held in this section of the research on the many tactics, strategies, and processes used to collect the data required for the study. These techniques, methods, and processes were used to acquire the necessary information. This section also analyses and describes the many statistical approaches utilized to assess the data acquired during the inquiry. These procedures were used to establish if the data was relevant to the investigation. Several methodologies will be utilized to examine the data acquired throughout the investigation.

3.2 Data

The majority of research initiatives depend on two types of data to get their final findings: theoretical knowledge and data analysis, which is often used to reach those conclusions. This study's author followed the same technique as the prior study's author. The World Bank Data Core should always be used as a resource to get quantitative data for a wide range of components and parts. Beginning in 1980 and finishing in 2020, the project will gather data on a yearly basis for 41 years. Throughout this time span, data will be collected from 1980 to 2020. To get more reliable and precise results, economic indicators such as foreign debt, savings, real interest rates, and GDP growth must be analyzed over time span.

3.3 Variables

GDP growth: The expansion of an economy may be the impetus for seismic societal transformations since it results in the creation of new ways of thinking, new technology, and new economic opportunities are all on the horizon. As a society adjusts to the new material status quo, growth may also result in the emergence of new institutional structures and social interactions.

This may happen as a direct or indirect consequence of growth. We see an increase in the frequency of this structural shift occurring when transactions are open and the advantages of growth are disseminated broadly. Transformation calls for the collaboration of several capitalists, each of whom must be equipped with improved technological skills in order to penetrate previously untapped markets and put labour to use in the production of novel goods.

That revolutionary process will probably be thwarted by completed transactions. Because it has the potential to make the benefits of development more sustainable, structural transformation is an essential concept. This is due to the fact that improvements in investments in both technology and human capital lead to gains in overall capital productivity. Economies shift their attention away from labor-intensive, low-value activities and toward the production of commodities and services with greater value.

In the course of human history, nations have been able to make significant strides ahead and emerge victorious from the grip of poverty in this manner. Countries that undergo transformation enter a new phase of their production trajectories which results in the creation of more and better employment opportunities that are worth more. Businesses are also becoming less reliant on direct help from the government and more self-reliant from a business point of view.

External debt: Gross external debt is the total amount owing to non-residents by the residents of an economy at any one moment, as measured by the outstanding amount of real present commitments that need payment of interest and/or principal by the debtor at some point(s) in the future.

Debt due to a nation outside of one's own is known as "external debt," and includes not only the initial loan amount but also any accrued interest. On the other hand, it does not factor in contingent liabilities, which are obligations that may be incurred at a later period based on the outcome of an unknown future event. According to the IMF, cross-border indebtedness is "debt obligations owing by a resident to a nonresident," with "residence" being established by the location of the creditors and borrowers' primary establishments rather than their citizenship. In other words, there is a legal obligation for a domestic debtor to pay off a foreign creditor.

In certain cases, a nation's foreign debt may take the form of a tied loan, which requires that the funds from the loan be used for domestic purposes only in the country giving the loan. This loan may facilitate the acquisition of resources from the lending country.

Gross domestic saving: Savings is the amount of money that is set aside for future use rather than being spent on immediate needs. To put it another way, it is money that is saved up for a later purpose and is not immediately spent.

Why should we make an effort to save money? Savings for short-term goals, such as purchasing a mobile phone, may be accomplished with savings, as can long-term goals, like putting children through college or buying a new car or house.

Savings can be utilized for all of these things.

Putting money aside may also help us meet unforeseen costs, such as those incurred by sickness, the purchase of a new appliance in the event that the old one cannot be fixed, or an unexpected vacation.

Additionally, savings may be invested, which means that you can make a return on the money that you have put away for savings. In other words, not only will you be able to access the funds at a later date, but you'll also be able to put aside some of those funds to make money while you are going through the procedure.

Real interest rate: An interest rate after adjusting for inflation is often referred to as the "real interest rate." After these adjustments are made, the true cost of borrowing money to the borrower and the true return to the lender or investor become clear.

The real interest rate reflects the extent to which present-day commodities are more valuable than those that won't be produced for some time. The real interest rate on an investment can be calculated by subtracting the inflation rate from the nominal interest rate and then multiplying the result by 100.

By subtracting the nominal interest rate (present or future) from the expected interest rate and then deducting the rate of inflation, one obtains the real interest rate.

3.4 Model specification

In order to accomplish this goal, we start by estimating a number of static time series data models, which include both fixed and random effects. Next, using the system's generalized linear model, we estimate dynamic time series data growth models (two-step). This technique not only takes into account the time series aspect of the data, but it also takes into account the non-observable effects that are distinctive to certain countries. In addition to that, the system GMM model considers all variables that are used for explanation to be endogenous. Because the use of weak instruments is linked to an asymptotically increasing coefficient variance and, in small samples, such coefficients are prone to bias, it is necessary to point out that this empirical investigation presents a number of challenges, one of which is how to deal with the use of weak instruments, which must be mentioned. Arellano and Bond (1991), Arellano and Bover (1995), and Blundell and Bond (1998) design a system of regressions in differences and levels in order to lessen the possibility for bias and inaccuracy that is linked with the use of a difference GMM. Lagged levels (differences) of the explanatory variables are used as the instruments for the regression

in differences (in levels). They are eligible candidates for the role of appropriate instruments on the presumption that, despite the fact that there is a possibility of a correlation between the levels of the explanatory variables and the country-specific effect, such a correlation does not exist when those variables are in different states. One such difficulty that has to be addressed empirically is the issue of instrument proliferation in GMM calculations. Roodman (2009) provides a comprehensive review of this topic, with particular emphasis on the signs and symptoms associated with an excessive use of instruments. Some asymptotic findings and specification tests can be rendered meaningless if the number of instruments used becomes too high in proportion to the size of the sample when the time dimension is increased. An excessive number of instruments have the potential to overfit endogenous variables and fail to purge their endogenous components, which may lead to biased coefficients. In the context of over identification, the Hansen and difference-in-Hansen tests may not be very reliable, according to another line of reasoning. The GMM estimate that we use for our system follows two empirical methodologies to cope with an excessive number of instruments (Roodman, 2009). The first alternative is to take advantage of the collapse suboption that is available in the Stata `xtabond2` command. The plan is to combine instruments by adding smaller sets without eliminating any delays, which means that there, will be one instrument for each variable, and lag distance rather than one instrument for each time period, variable, and lag distance individually. In the end, the GMM-style moment conditions are going to be broken up into groups, and then the circumstances in each group are going to be added together to make a more manageable set of conditions. At this point, we have a collection of collapsed instruments, with one instrument created for each lag distance and the value zero standing in for any values that are absent. The second empirical method is called "lag limits," and it restricts the use of lags as instruments to just particular lags rather than using all of the lags that are available. In fact, both of these empirical decisions share a decrease in the total number of instruments as well as the linearity of their data in T.

$$GDP_t = \beta + \beta_1 ED_t - 1 + \beta_2 TR_t - 1 + \beta_3 RIR_t - 1 + \varepsilon_t \quad (1)$$

In this equation, GDP, which is an abbreviation for Gross National Product, is the item being measured. ED, which is an abbreviation for external debt, is one of the independent variables. TR, which stands for total reserved, and RIR, which stands for real interest rate, are the other two independent variables. All of these variables are independent in the equation that was just presented. ε_t is the error term.

3.5 Descriptive Statistics

Data sets might be representations of the full population or subsets of it, and descriptive statistics provide a set of succinct, informative coefficients that characterize each. Descriptive statistics are known by several other names. Measures of central tendency and measures of variability are two categories of descriptive statistics (spread). Measures like the mean, median, and mode can be used to look at central tendencies. Standard deviation, variance, minimum and maximum variables, kurtosis, and skewness are only some of the ways that variability can be measured.

3.6 Unit root test

A stochastic trend GDP, or Gross National Product, is the item being measured. Other names for this stochastic trend include a unit root process and a difference stationary process.

Because of the mathematics that underlies the process, the phenomenon in question is referred to as a unit root. A procedure may be represented mathematically as a string of monomials at its most fundamental level (expressions with a single term). Each monomial is equivalent to different root. When one of these roots has the value of 1, we refer to that root as the derivative of a unit. The question of whether or not a time series is stationary may be answered using a test called a unit root test. It is possible to say that a time series is stationary if the distribution of the series remains the same as time progresses, whereas non-stationarity is produced by the existence of unit roots.

The conventional Augmented Dickey-Fuller (ADF) test is used to determine if a null unit root exists in each current account. In our empirical research, we opted against making use of trends in favor of a less complicated model. In order to pick the value of the lag order, k , in the ADF regressions, we use the recursive t-statistic strategy proposed by Campbell and Perron, as there is strong evidence that data-dependent methods are superior to choosing a fixed k a priori (1991).

3.7 Estimation Technique

The process of estimating starts with a determination of the time series qualities possessed by the data, which is then followed by cointegration test procedures. After that, the process known as the Generalized Method of Moments (GMM) is used in order to carry out the system estimate. The GMM estimation method is the one that is

most often used because of its innate capability to provide unbiased estimators even when the dependent variables being used as instruments have been delayed. It is possible to prevent findings from being skewed owing to the correlation that exists between the error term and the endogenous variables that were delayed. In addition to this, it has the ability to generate consistent parameter estimates throughout an estimating approach for a system equation, even in the presence of measurement error and endogenous right-hand side variables. This is a benefit that this method offers.

3.8 Diagnostic statistics

As the name implies, it is a test to determine whether or not your data is normal. But what exactly does it signify? Normality is a statistical term that relates to a certain distribution known as the "normal distribution," which is also referred to as the "Gaussian distribution" or "bell-shaped curve" in some instances. The mean and standard deviation of the data are the two components that form a normal distribution, which is a kind of symmetrical continuous distribution.

3.9 Granger Causality Test

Even though the concepts of causality and cause-and-effect are not identical, they are very closely connected to one another. If variable X is the one that caused variable Y, then variable Y may be said to be causal to variable X. Yet, when you look at a cause and effect utilizing Granger causality, you aren't doing so in a true way. To be more precise, you want to know which variable in the time series happens before another. If you find evidence of Granger causality in your data, it signifies that the link is not causative in the usual sense (Easter basket sales did not Granger-cause Easter!). Keep in mind that the term "cause" is used by econometricians when they mean "grander cause," while the term "precedence" would be more appropriate here (Leamer, 1985).

CHAPTER IV

4.0 RESULTS AND DISCUSSION

4.1 Introduction

The focus of this chapter is on analyzing the outcomes of these residual diagnostic procedures. We conduct tests for normality, as well as CUSUM and CUSUM of squares tests for perimeter. The GMM test is also granger causality used for cointegration; the descriptive statistic test, the stationary test, and the ADF unit root test are all covered here. Every one of those checks passed with the help of EViews.

4.2 Descriptive statistic

Table 4.1 descriptive statistic

	GDP	RIR	TR	ED
Mean	3.055069	0.337111	1.80E+10	2.50E+9
Median	4.195924	4.310292	7.78E+09	1.87E+09
Maximum	15.32916	18.18000	5.30E+10	8.81E+09
Minimum	-13.12788	-65.85715	9.33E+08	4.96E+09
Std. Dev.	5.387712	14.27219	1.725483	1.79E+09
Skewness	-0.825581	-2.685826	0.580053	1.608954
Kurtosis	4.621278	12.77500	1.725483	5.491397
Jarque-Bera	9.147918	212.5258	5.074159	28.29341
Probability	0.010317	0.000000	0.079097	0.000001
Sum	125.2578	13.82156	7.37E+11	1.03E+11
Sum Sq. Dev.	1161.097	8147.812	1.24E+22	1.29E+11
Observation	41	41	41	41

Source: This study

The results of the descriptive statistics test indicate that the mean GDP growth is 3.05, which is the highest in the category; the mean foreign debt is 2.05, which is also the second highest in the category; and the mean real interest rate is 0.33. These values are all in contrast to the mean real interest rate, which is 0.33. According to this research, the highest possible rate of growth for GDP is 15.32 percent, which is also the highest, while the highest possible rate of growth for foreign debt is 5.30 percent. It is a positive sign if the skewness of the variables is not very high. The kurtosis is in the opposite direction for three of the four variables, while the distribution of the total reserve is normal.

4.3 ADF UNIT ROOT TEST

In the field of statistics, the null hypothesis that a time series sample has a unit root may be tested using an augmented Dickey–Fuller test, often known as an ADF. In most cases, the alternative hypothesis is either stationarity or trend-stationarity; however, its form might vary depending on the version of the test that is being used. It is an improved version of the Dickey–Fuller test that may be used with a greater number and a more intricate variety of time series models. A negative value is returned by the augmented Dickey–Fuller (ADF) statistic when it is applied to the test. The more negative it is, the more strongly, at some degree of confidence, the hypothesis that there is a unit root may be rejected as being incorrect.

Table 4.2 unit root test

Augmented Dickey Fuller (ADF) Unit Root Test			Order of integration
Variables	Level	1 st difference	
ED	0.009	-0-	I(0)
GDP	0.8621	0.0000	I(1)
RIR	0.0006	-0-	I(0)
TR	0.0835	0.000	I(1)

Source: This study

A "unit root test" is one method for determining whether or not a time series is stationary. Many time series may be compared for their outcomes, which might help. When the form of the distribution of a time series remains constant throughout time, we say that the time series is stationary. Contrarily, the presence of unit roots might lead to the induction of non-stationery.

The ADF test is performed to see whether each current account really does have a null unit root. We opted to employ the model that ignored trends since it would be more useful for the empirical study. Since there is strong evidence showing that data-dependent approaches are superior to choosing a fixed k a priori, we employ the recursive t-statistic process suggested by Campbell and Perron to select the value of the lag order, k , in the ADF regressions. This motivates our adoption of a recursive t-statistic approach (1991). Results for the ADF unit root are tabulated above. This proves that the initial difference or order of magnitude in two of our variables remains

constant across time (1). External debt and real interest rate are the variables, and their probability values are 0.0000 and 0.0000, respectively. The other two variables are also stationary at their level; they are GDP growth and total reserves, and their probability values are 0.0000 and 0.0000, respectively. Taking all of this into account, we chose to use the ARDL model for our analysis.

4.4 GMM test

The method of moments (MM) is generalized by the generalized method of moments (GMM), which allows for a higher number of moment conditions than there are parameters. GMM is more effective than MM since it takes these additional momentary circumstances into account. An estimator is said to have an over identified moment condition set when there are more moment conditions than parameters. Even when the estimator is over identified, GMM can effectively integrate the current circumstances.

Table 4.4 GMM test for co-integration

Variable	Coef.	Std.error	t.statistic	P value
ED	-1.51	3.77	-0.39	0.6920
RIR	0.20	0.04	4.84	0.0000***
TR	2.51	4.59	0.54	0.5879
C	2.91	1.65	1.76	0.0863
R – square	0.325			
J –statistic	0.0000			

Source: This study

*Note ***represent significance at, 1%*** 5%** and *10% respectively Source: Long-Run ARDL. Note ****represent significance at ***1% and **5% 10%*respectively*

When the GMM model is used, the results showed in table 4.4 that there is a connection between the variables both in the long run and in the short run. The results demonstrated this.

But the results show that while foreign debt is good for economic growth in general, it doesn't do much to help the Nigerian economy grow.

This finding is consistent with the findings of Umer Hayat (2010), who used a time

series econometric approach to investigate the link between Pakistan's high foreign debt and the country's rapid economic expansion from 1972 to 2005. He took a cursory look at Pakistan's economic performance as well as its foreign debt. The research presented in his article demonstrates that there is a negative correlation between external debt and economic growth. According to the available information, a rise in total foreign debt will result in a slowdown in economic development. The service of debt also has a large and adverse influence on the expansion of the GDP. Since the cost of paying back debt tends to go up, there will be less chance for economic growth.

Real interest rate shows a positive and significant effect on economic growth in Nigeria. This conclusion is consistent with the findings of UDOKA (2012), which investigated the impact that changes in interest rates had on the expansion of the Nigerian economy. Two research hypotheses were developed and tested as part of this investigation to investigate the relationship between interest rates and economic development, as well as the difference in economic growth in Nigeria before and after interest rate deregulation. For the purpose of this study, an ex-post facto research design was used. The statistics bulletin published by the Central Bank of Nigeria provided the research team with the necessary data. The ordinary least squares multiple regression analytical approach was used to do the analysis and testing of the data that was obtained. According to the data, there is an inverse link between the interest rate and economic development in Nigeria. This implies that an increase in interest rates would result in a decrease in GDP for the country, impeding the expansion of the real sector. It was proposed that Nigeria develop a strong monetary strategy that increases lending to the real sector economy in order to facilitate economically productive activities. This was one of the recommendations made.

Total reserves have a favorable impact on Nigeria's economic development. This finding is consistent with Sulaa and Oguzoglu's (2021) study of the association between the amount of foreign reserves and economic development for a sample of 120 industrialized and developing countries from 1981 to 2010. They discover that overseas reserves have a favorable influence on growth by using dynamic panel data approaches and adjusting for a broad variety of factors. Furthermore, when the opportunity cost of maintaining reserves rises, the benefit lessens. If the J-stat is zero, you have a fantastic model. If the p value is 0, you have a terrible model. Assume you're estimating time constraints.

4.6 RESIDUALS DIAGNOSTIC TEST

As the name implies, it is a test to determine whether or not your data is normal. But what exactly does it signify? Normality is a statistical term that relates to a certain distribution known as the "normal distribution," which is also referred to as the "Gaussian distribution" or "bell-shaped curve" in some instances. The mean and standard deviation of the data are the two components that form a normal distribution, which is a kind of symmetrical continuous distribution.

Table 4.5 residual diagnostic

Tests	Statistic	P value
Normality Test	8031	0.6692

Source: This study

The preceding table 4.5 displays the outcomes of only one statistical tests for residual diagnostic because the GMM model can solve the problem of many diagnostic tests, such as (the Breusch-Godfrey Serial Correlation test, and the Breusch-Pagan-Godfrey heteroskedasticity test).

So this study employed only the Jarque-Bera normalcy test, to know the normality of the data. The null hypothesis says that the population is regularly distributed, as opposed to the alternative hypothesis that it is not. If the test p-value is less than the predetermined significance threshold, you may reject the null hypothesis and infer that the data do not come from a normally distributed population. If the p-value is larger than the preset significance threshold, the null hypothesis cannot be rejected.

As a direct consequence of this, we have reached the conclusion that the null hypothesis is the best option to pursue rather than the alternative hypothesis. Because of this, the model that was made during this study gives results that are valid, reliable, and strong.

4.7 Granger Casualty.

The Granger causality test is a statistical hypothesis test that was initially introduced in 1969. Its purpose is to determine whether or not one time series might be helpful in anticipating another its purpose is to determine whether or not one time series might be helpful in anticipating another Granger, C. W. J. (1969). As a matter

of course, regressions reflect "mere" correlations; however, Clive Granger argued that causality in economics could be tested by measuring one's ability to predict the future values of a time series using the prior values of another time series. Granger proposed this method in response to the observation that regressions typically reflect "mere" correlations. According to econometricians, the Granger test only finds "predictive causality" because the question of "true causality" is deeply philosophical and because of the post hoc ergo propter hoc fallacy, which is the assumption that one thing preceding another can be used as a proof of causation. This fallacy assumes that one thing occurring before another can be used to prove causation. Diebold, Francis X. (2007). Granger's theory of causality is more accurately stated as "precedence," according to Edward E. (1985), or, as Granger himself subsequently asserted in 1977, as "temporally linked." Using the word "causality" alone is a misnomer. Granger, C. W. et.al (1977). The Granger causality test looks at whether X can accurately predict Y rather than whether X is responsible for Y.

Granger Casualty Test Result table.

Null Hypothesis	Obs.	F-Statistic	Prob.
RIR does not Granger Cause GDP.	37	0.10313	0.9805
GDP does not Granger Cause RIR		0.67598	0.6143
TR does not Granger Causes GDP	37	0.74565	0.5691
GDP		0.90554	0.4741
ED does not Granger Cause GDP	37	0.30923	0.8693
GDP does not Granger Cause ED		0.76916	0.5544
ED does not Granger Cause RIR	37	1.64940	0.1898
RIR does not Granger Cause TR		0.73419	0.5764
ED does not Granger Cause RIR	37	0.09049	0.9847
RIR does not Granger Cause ED		0.13364	0.9687
ED does not Granger Cause	37	2.60750	0.0574**
TR does not Granger Cause ED		0.95604	0.4468

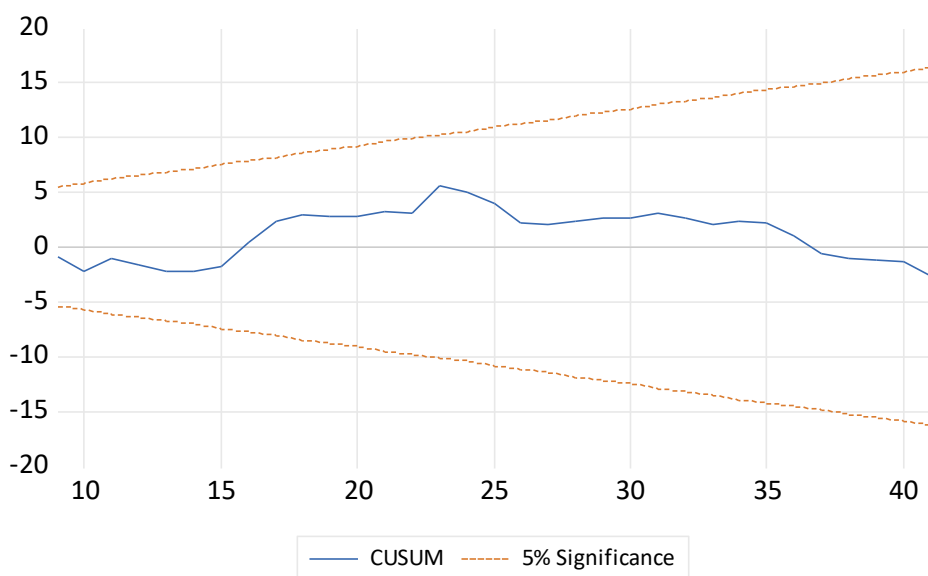
Source: This study

Even though the concepts of causality and cause-and-effect are not identical, they are very closely connected to one another. If variable X is the one that caused variable Y,

then variable Y may be said to be causal to variable X. On the other hand, when you look into a Granger causality, you aren't really looking into a true cause-and-effect relationship. Instead, you want to know which event in the time series comes before the other. The Granger causality test indicated a one-way relationship between the variables. The findings reveal that external debt causes total reserve, but total reserve does not cause external debt. And the other factors do not cause one another.

4.8 Stability test

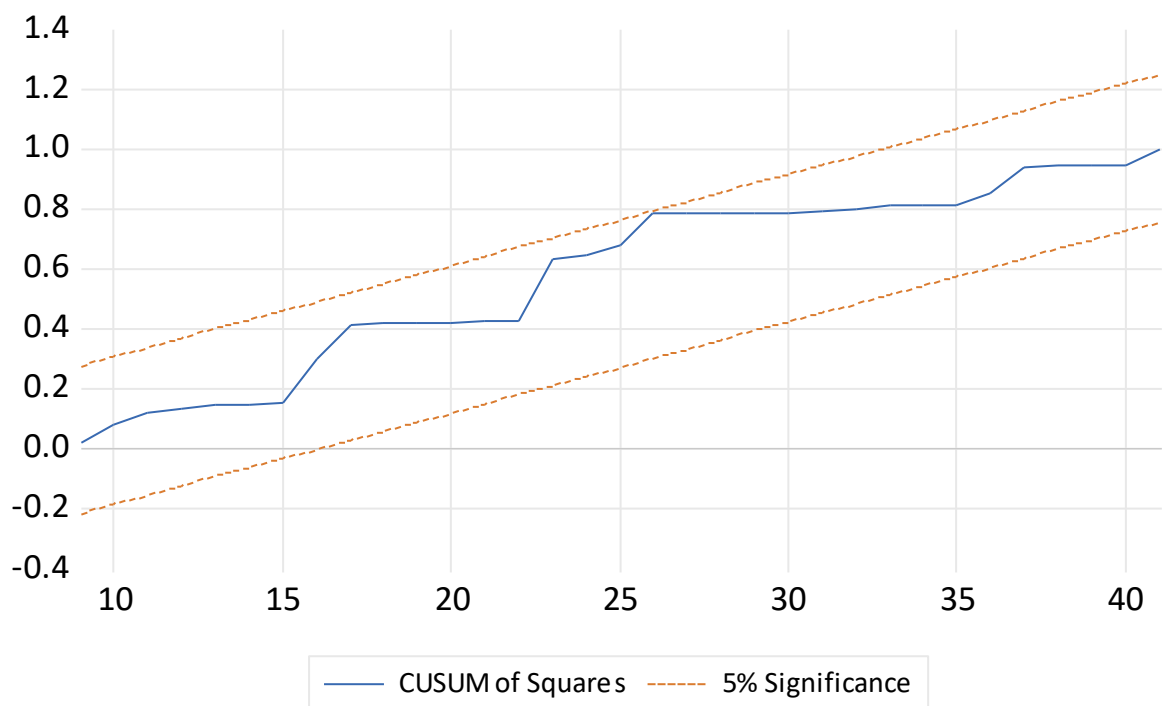
Figure 4.1 CUSUM



On the other hand, despite the fact that there is a null hypothesis that indicates that the parameters are consistent, the alternative hypothesis does not contain a hypothesis of this kind. The null hypothesis states that within a 95% confidence interval, the error correction coefficients used in the error correction model will not deviate from their initial values. (2002) based on the research of Bahmani, Oskooee, and Ng Assuming a 5% level of significance, if any of the lines are broken, it is plausible to conclude that the null hypothesis of consistent coefficients cannot be upheld. So that the exchange rate coefficient stays stable over time, the plot of CUSUM and CUSUMQ data has to stay within the important limits shown in the picture on the right. The findings of the experiments indicate that the red line defines the limits where the blue line may be found, hence the blue line is confined to those bounds. As the image demonstrates, we choose to believe that the residual variances are stable rather than

unstable in order to get an additional advantage. In light of this, we conclude that the null hypothesis is correct and that the alternative hypothesis is incorrect. Contrary to what one may assume based on the statistics, however, the residual variance is quite steady.

Figure 4.2 CUSUM OF SQUARE



There is a hypothesis known as the null hypothesis, which states that the parameters are constant. However, there is no such hypothesis for the alternative hypothesis. The blue line, in accordance with the findings of the test, is constrained to remain inside the boundaries of the red line. We want to think that the residual variances are stable rather than unstable, so we accept the hypothesis that the alternative hypothesis is false and accept the null hypothesis. This would improve matters considerably.

As a corollary, we might conclude that the residual variance is steady as opposed to fluctuating. Finally, we used CUSUM and CUSUMQ to compare the short-term dynamics of the exchange rate and GDP growth variables with the long-term stability of the ARDL model's long-term coefficient.

This was done to draw attention to the disparity between the long-term stability of the long-term coefficient and the short-term dynamics between the variables. The

null hypothesis states that, within a 95% confidence interval, all error correction coefficients in the error correction model are unaltered. It turned out that this was the case (Bahmani, Oskooee, & Ng, 2002). There is a possibility, at a 5% level of significance, that the null hypothesis of consistent coefficients cannot be sustained if any of the lines are broken.

So that the exchange rate coefficient stays stable over time, the plot of CUSUM and CUSUMQ data has to stay within the important limits shown in the picture on the right.

CHAPTER V

5.0 Executive Summary, Conclusion and Recommendations

5.1 Introduction

This section, which provides an overview of the study's findings, and the one that follows it, analyze how ED has affected Nigeria's economic development and how this influence has been understood. In the second section, the stationary test of a data set is examined and discussed, and co-integration in the t is examined and discussed. We will finally examine and analyze regression analysis, diagnostic tests, and data or result stability tests, among other topics. Even so, the presentation was made in keeping with the aims of the research, and the successful testing was done with E-views software.

5.2 Summary

Financial resources are being seriously drained by the national debt. It is not always the case that a rising level of external debt would result in sluggish economic expansion. It's when a country can't pay its bills, and it's made worse by the fact that no one knows much about the specifics of that country's external debt (Were, 2001). According to Soludo (2003), there are two main categories of reasons why countries borrow money: macroeconomic reasons, such funding increased investment or consumption, and getting past severe budget limits. This indicates that borrowing money is necessary for a country's economy to boost growth and alleviate poverty. The debt of a nation, he said, becomes problematic if a certain threshold is reached. With too much debt relative to GDP, a country's ability to invest and expand is stunted, and the cost of servicing that debt becomes prohibitive. Nigeria's already sluggish economic development has been hampered even more by the strain of debt payment, which has also exacerbated the country's already serious social ills (Audu, 2004).

In order to determine the model that will be used for this thesis, we perform the unit root test, which assists us in making this selection. To ascertain whether a time series is stationary, one might use a technique known as a unit root test. One way to do this is to compare the results of many time series. A time series is considered stationary when the shape of its distribution does not vary as a function of time. On the other hand, the presence of unit roots might produce non-stationary.

Utilizing the time-honored ADF test, it is determined whether each current account has a null unit root. For the aim of the empirical inquiry, we chose to use a model that

does not account for trends. For ADF regressions, we choose the recursive t-statistic approach proposed by Campbell and Perron because there is convincing evidence that data-dependent methods yield more accurate results than those that use a fixed k a priori. So, the t-statistic with a recursive technique is applied (1991). Above you may see the unit root result for the ADF. It demonstrates that the beginning difference or order difference is a stationary value for two of our variables (1). Probability values of 0.0000 and 0.0000 were assigned to the variables external debt and real interest rate, respectively. Additionally, the other two variables, GDP growth and total reserves, are also steady at their current levels, with probability values of 0.0000 and 0.0000, respectively. Taking everything into consideration, we decided to conduct our study using the GMM model.

When the GMM model is used, the results showed in table 4.4 that there is a connection between the variables both in the long run and in the short run. The results demonstrated this.

But the results show that while foreign debt is good for economic growth in general, it doesn't do much to help the Nigerian economy grow. This finding is consistent with the findings of Umer Hayat (2010), who used a time series econometric approach to investigate the link between Pakistan's high foreign debt and the country's rapid economic expansion from 1972 to 2005. He took a cursory look at Pakistan's economic performance as well as its foreign debt. The research presented in his article demonstrates that there is a negative correlation between external debt and economic growth. According to the available information, a rise in total foreign debt will result in a slowdown in economic development. The service of debt also has a large and adverse influence on the expansion of the GDP. Since the cost of paying back debt tends to go up, there will be less chance for economic growth. Real interest rate shows a positive and significant effect on economic growth in Nigeria. This conclusion is consistent with the findings of UDOKA (2012), which investigated the impact that changes in interest rates had on the expansion of the Nigerian economy. Two research hypotheses were developed and tested as part of this investigation to investigate the relationship between interest rates and economic development, as well as the difference in economic growth in Nigeria before and after interest rate deregulation. For the purpose of this study, an ex-post facto research design was used. The statistics bulletin published by the Central Bank of Nigeria provided the research team with the necessary data. The ordinary least squares

multiple regression analytical approach was used to do the analysis and testing of the data that was obtained. According to the data, there is an inverse link between the interest rate and economic development in Nigeria. This implies that an increase in interest rates would result in a decrease in GDP for the country, impeding the expansion of the real sector. It was proposed that Nigeria develop a strong monetary strategy that increases lending to the real sector economy in order to facilitate economically productive activities. This was one of the recommendations made.

Total reserves have a favorable impact on Nigeria's economic development. This finding is consistent with Sulaa and Oguzoglu's (2021) study of the association between the amount of foreign reserves and economic development for a sample of 120 industrialized and developing countries from 1981 to 2010. They discover that overseas reserves have a favorable influence on growth by using dynamic panel data approaches and adjusting for a broad variety of factors. Furthermore, when the opportunity cost of maintaining reserves rises, the benefit lessens. If the J-stat is zero, you have a fantastic model. If the p value is 0, you have a terrible model. Assume you're estimating time constraints.

The preceding table 4.5 displays the outcomes of only one statistical tests for residual diagnostic because the GMM model can solve the problem of many diagnostic tests, such as (the Breusch-Godfrey Serial Correlation test, and the Breusch-Pagan-Godfrey heteroskedasticity test).

So this study employed only the Jarque-Bera normalcy test, to know the normality of the data. The null hypothesis says that the population is regularly distributed, as opposed to the alternative hypothesis that it is not. If the test p-value is less than the predetermined significance threshold, you may reject the null hypothesis and infer that the data do not come from a normally distributed population. If the p-value is larger than the preset significance threshold, the null hypothesis cannot be rejected.

As a direct consequence of this, we have reached the conclusion that the null hypothesis is the best option to pursue rather than the alternative hypothesis. Because of this, the model that was made during this study gives results that are valid, reliable, and strong.

The CUSUM and CUSUM of Squares results show that our parameters are stable, and although there is a null hypothesis stating that the parameters are consistent, the alternative hypothesis does not have a corresponding hypothesis for these results. Within a 95% confidence interval, which includes a 5% error margin, the null

hypothesis states that none of the error correction coefficients used in the error correction model have changed. This turned out to be true upon further inspection (Bahmani, Oskooee, & Ng, 2002). There is not enough evidence to support the null hypothesis of constant coefficients at the 5% level of significance if any of the lines are broken. Keep the CUSUM and CUSUMQ data plot inside the key bounds provided on the right if you want the exchange rate coefficient to remain constant throughout time.

Based on the experimental findings, it is clear that the red line sets the bounds within which the blue line may be identified. This visual illustrates why we gain more from the assumption that residual variances are stable than from the alternative. As a result, we'll go with the "null" hypothesis and "reject" the "alternative" one. Yet, in contrast to what one would expect based on statistical analysis, the residual variance keeps on being the same.

The null hypothesis is the constant parameter hypothesis. On the other hand, there is no equivalent explanation for the competing hypothesis. The blue line, according to the test findings, must remain inside the red line's boundaries. To conclude that residual variances are stable rather than unstable, we must accept the null hypothesis and reject the alternative. The situation would improve even more if this happened. Further, we may deduce that the residual variance is steady rather than fluctuating. We used CUSUM and CUSQ to check the long-term stability of the ARDL model's long-term coefficient against the short-term dynamics of the exchange rate and economic growth variables (CUSUMQ).

The purpose of this was to examine the short-term dynamics between the variables and contrast them with the long-term stability of the long-term coefficient. Error correction model coefficients are stable within a 95% confidence interval, as stated by the null hypothesis. This turned out to be true after some investigation (Bahmani, Oskooee, & Ng, 2002). The consistent-coefficients null hypothesis fails to hold up at the 5% level of significance if any of the lines are crossed.

The crucial bounds for the plot of CUSUM and CUSUMQ data needed to maintain a constant exchange rate coefficient are shown on the right.

5.3 Conclusion

The effects of Nigeria's mounting foreign debt on the country's economy were examined in this report. The research made use of econometric methods. An ADF unit root analysis was performed on each variable, and the results showed that there was

integration between the variables at the first difference and the level. To conclude, when the GMM model is used, the results showed in table 4.4 that there is a connection between the variables both in the long run and in the short run. The results demonstrated *this.*

But the results show that while foreign debt is good for economic growth in general, it doesn't do much to help the Nigerian economy grow. This finding is consistent with the findings of Umer Hayat (2010), who used a time series econometric approach to investigate the link between Pakistan's high foreign debt and the country's rapid economic expansion from 1972 to 2005. He took a cursory look at Pakistan's economic performance as well as its foreign debt. The research presented in his article demonstrates that there is a negative correlation between external debt and economic growth. According to the available information, a rise in total foreign debt will result in a slowdown in economic development. The service of debt also has a large and adverse influence on the expansion of the GDP. Since the cost of paying back debt tends to go up, there will be less chance for economic growth. Real interest rate shows a positive and significant effect on economic growth in Nigeria. This conclusion is consistent with the findings of UDOKA (2012), which investigated the impact that changes in interest rates had on the expansion of the Nigerian economy. Two research hypotheses were developed and tested as part of this investigation to investigate the relationship between interest rates and economic development, as well as the difference in economic growth in Nigeria before and after interest rate deregulation. For the purpose of this study, an ex-post facto research design was used. The statistics bulletin published by the Central Bank of Nigeria provided the research team with the necessary data. The ordinary least squares multiple regression analytical approach was used to do the analysis and testing of the data that was obtained. According to the data, there is an inverse link between the interest rate and economic development in Nigeria. This implies that an increase in interest rates would result in a decrease in GDP for the country, impeding the expansion of the real sector. It was proposed that Nigeria develop a strong monetary strategy that increases lending to the real sector economy in order to facilitate economically productive activities. This was one of the recommendations made.

Total reserves have a favorable impact on Nigeria's economic development. This finding is consistent with Sulaa and Oguzoglu's (2021) study of the association between the amount of foreign reserves and economic development for a sample of

120 industrialized and developing countries from 1981 to 2010. They discover that overseas reserves have a favorable influence on growth by using dynamic panel data approaches and adjusting for a broad variety of factors. Furthermore, when the opportunity cost of maintaining reserves rises, the benefit lessens. If the J-stat is zero, you have a fantastic model. If the p value is 0, you have a terrible model. Assume you're estimating time constraints.

The preceding table 4.5 displays the outcomes of only one statistical tests for residual diagnostic because the GMM model can solve the problem of many diagnostic tests, such as (the Breusch-Godfrey Serial Correlation test, and the Breusch-Pagan-Godfrey heteroskedasticity test).

So this study employed only the Jarque-Bera normalcy test, to know the normality of the data. The null hypothesis says that the population is regularly distributed, as opposed to the alternative hypothesis that it is not. If the test p-value is less than the predetermined significance threshold, you may reject the null hypothesis and infer that the data do not come from a normally distributed population. If the p-value is larger than the preset significance threshold, the null hypothesis cannot be rejected.

As a direct consequence of this, we have reached the conclusion that the null hypothesis is the best option to pursue rather than the alternative hypothesis. Because of this, the model that was made during this study gives results that are valid, reliable, and strong.

A null hypothesis for parameter consistency exists, and the absence of a comparable hypothesis for the CUSUM and CUSUM of Square results in the alternative hypothesis suggests that our parameters are stable. The error correction model's confidence range has a 5% error margin, thus the null hypothesis asserts that the error correction coefficients do not change. Bahmani, Ng, and Oskooee (2002) If any of the lines are broken, we may reject the null hypothesis of constant coefficients at the 5% significance level. The plot of CUSUM and CUSUMQ data has to remain within the critical limitations given on the right for the exchange rate coefficient to be stable over time.

According to the results of the studies, the blue line can only be located inside the limits established by the red line. As can be seen in the graph, we find it advantageous to presume that residual variances are stable rather than unstable. We thus conclude that the alternative hypothesis is false and accept the null hypothesis. But contrary to what the numbers may suggest, the residual variance does not change.

The constant parameter hypothesis is the null hypothesis. For the counterfactual, however, there is no equivalent theory. The results of the tests show that the blue line must stay inside the red line at all times. To ensure that the residual variances are constant and not fluctuating, we will accept the null hypothesis and reject the alternative. Doing so would be a big help in solving the issue. We may also deduce that the residual variance is steady, rather than fluctuating. This study compared the short-term dynamics of the exchange rate and economic growth variables using the cumulative sum of recursive residuals (CUSUM) and the cumulative sum of squares (CSS) to test the long-term stability of the long-term coefficient in the ARDL model (CUSUMQ).

The purpose of this was to contrast the long-term stability of the long-term coefficient with the short-term dynamics of the variables. The null hypothesis states that the error correction coefficients do not vary from one iteration to the next within the confidence range of the error correction model (which has an error margin of 5%). Bahmani, Ng, and Oskooee (2002) the null hypothesis of consistent coefficients may be rejected with a 5% level of significance if any of the lines are crossed.

Critical limits on the plot of CUSUM and CUSUMQ data are shown on the right; these must be respected if the exchange rate coefficient is to be maintained over time.

5.4 Recommendations

This thesis suggests During the loan approval and post approval phases, the National Assembly and the Federal Ministry of Finance should guarantee that foreign loans are attached to particular projects, and periodic reviews should be carried out jointly to evaluate the degree of work done and the funds distributed. This will guarantee that deficit financing is linked to infrastructure. It will also make sure that foreign funding has the effect that was intended, which is to help build long-term infrastructure. Policymakers should design and execute policies based on the findings of this research.

Effective policies to ensure that public debts are used for their intended purpose and concerted efforts to effectively control debt levels are necessary to increase the nation's investment volume and achieve the requisite level of economic development.

The government should ensure that policy changes have both short- and long-term economic impacts properly considered before being implemented. The government

should take action against corruption since the country's economy won't progress as quickly as it might if fiscal policies were to remain unchanged.

Government spending on health care, schools, and the economy as a whole has to be expanded as a component of productive expenditure if we are to see sustained economic growth. Since the stock of Nigeria's foreign debt has been negative correlated with economic growth, its decrease would not stimulate even further expansion. Nonetheless, the data shows careful management of the borrowed stock.

Rules should be established by the federal government for determining the nature, duration, obligations, and moratorium conditions of foreign debt loans, as well as for negotiating their terms. This may serve as a cautionary tale about the dangers of amassing excessive amounts of external debt. Debt service may be reduced or eliminated entirely with a well-thought-out strategy for paying off the loan in a reasonable amount of time.

The associated economic leakages will be reduced as a result of this. Better manufacturing technology should be a government priority so that products made here can compete on a global scale. Increasing exports, discouraging imports, and reducing the country's need for foreign borrowing may all be achieved if locally produced goods are of high quality and can compete well in both home and international markets. Even if the currency is allowed to float, the country's exports must be aggressively promoted by revitalizing agriculture and manufacturing.

Borrowing money from abroad should be reserved for critically important, profit-generating projects. The nation may then use the money it receives to pay off its massive external debt. Huge amounts of money owed to other countries would lead to "serious" economic problems if this didn't happen. In the case of Nigeria, the primary goal of accruing foreign debt was to expedite the nation's development efforts. This might also be supported by increasing revenues from exports, which would be facilitated by a growth plan that is export-driven. It is essential that the accessibility of external financing be in line with a policy framework that is reliably maintained (fiscal stance, exchange rate policy, interest rate policy, pricing policy, etc.). In order to stimulate investor confidence for domestic as well as international investments, policymakers should establish credibility by demonstrating that political will is there. As a result of the country's various challenges, including political unrest, acts of terrorism, and so on, investors no longer have faith in Nigeria as a viable investment destination. It is imperative that this trust be restored at this time in order for investors

to feel comfortable investing in the nation and for the nation to be able to reduce its heavy dependence on outside debt. Nigeria still has a chance of overcoming the problems caused by its foreign debt if the right policies are put in place. However, the country would need a lot of help from programs that reduce or eliminate debt.

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Appendix

Null Hypothesis: DS has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.608556	0.0099
Test critical values: 1% level	-3.605593	
5% level	-2.936942	
10% level	-2.606857	

*MacKinnon (1996) one-sided p-values.

GDP UNIT ROOT TEST

Null Hypothesis: GDP has a unit root
 Exogenous: Constant
 Lag Length: 1 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.697845	0.0835
Test critical values: 1% level	-3.610453	
5% level	-2.938987	
10% level	-2.607932	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(GDP) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-11.64287	0.0000
Test critical values: 1% level	-3.610453	
5% level	-2.938987	
10% level	-2.607932	

*MacKinnon (1996) one-sided p-values.

RIR UNIT ROOT TEST

Null Hypothesis: RIR has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.618599	0.0006
Test critical values: 1% level	-3.605593	
5% level	-2.936942	
10% level	-2.606857	

*MacKinnon (1996) one-sided p-values.

TR UNIT ROOT TEST

Null Hypothesis: TR has a unit root
 Exogenous: Constant
 Lag Length: 2 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.585543	0.8621
Test critical values: 1% level	-3.615588	
5% level	-2.941145	
10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(TR) has a unit root
 Exogenous: Constant
 Lag Length: 1 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.806134	0.0000
Test critical values: 1% level	-3.615588	
5% level	-2.941145	
10% level	-2.609066	

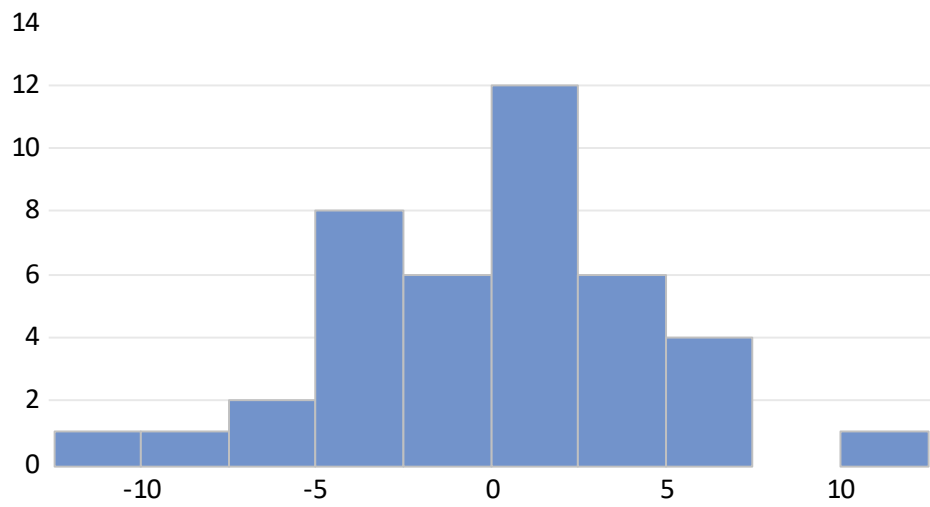
*MacKinnon (1996) one-sided p-values.

GMM

Dependent Variable: GDP
 Method: Generalized Method of Moments
 Date: 12/29/22 Time: 13:34
 Sample: 1 41
 Included observations: 41
 Linear estimation with 1 weight update
 Estimation weighting matrix: HAC (Bartlett kernel, Newey-West fixed
 bandwidth = 4.0000)
 Standard errors & covariance computed using estimation weighting matrix
 Instrument specification: ED RIR TR
 Constant added to instrument list

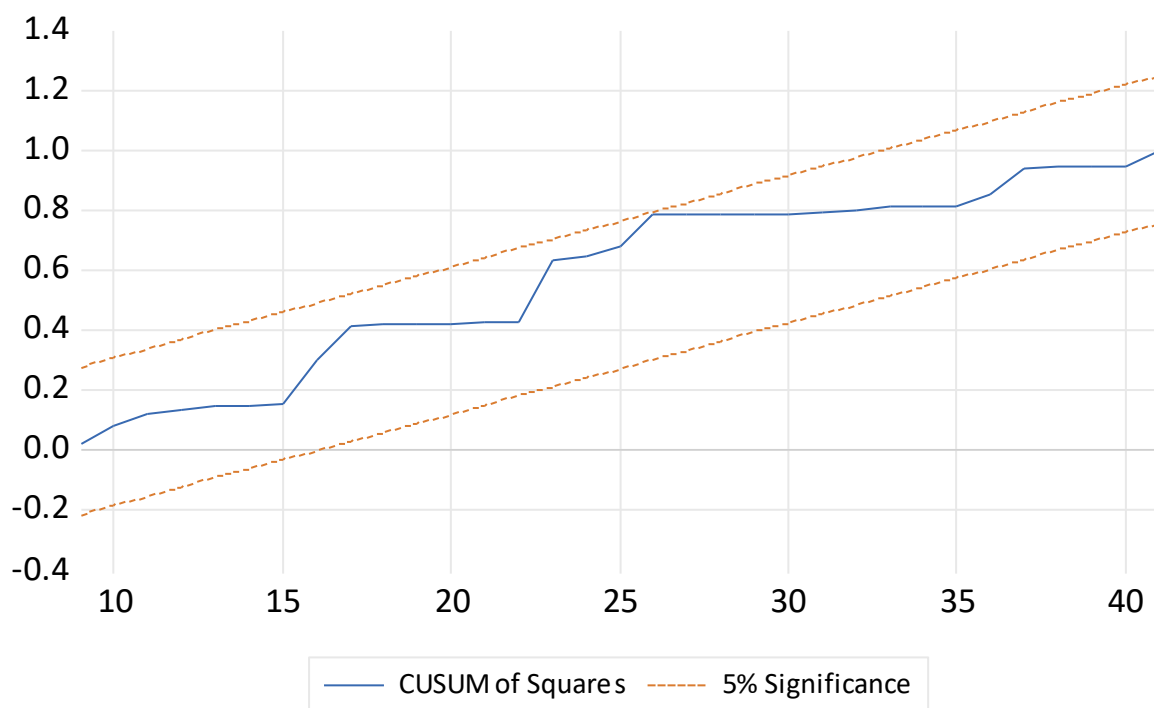
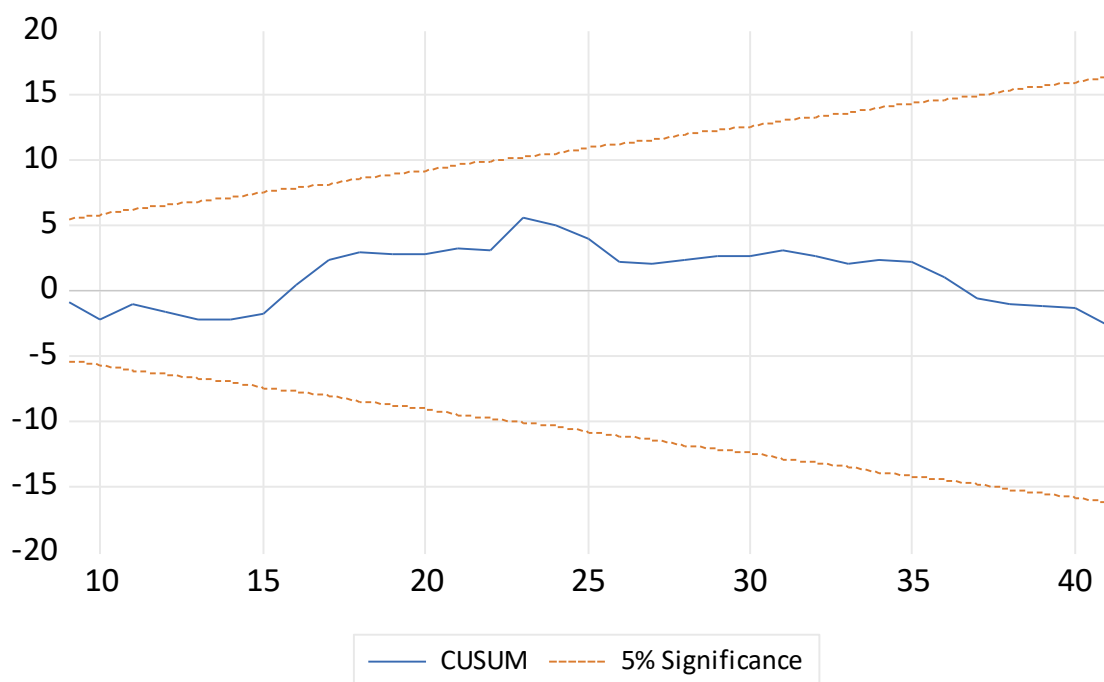
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ED	-1.51E-10	3.77E-10	-0.399244	0.6920
RIR	0.201586	0.041584	4.847675	0.0000
TR	2.51E-11	4.59E-11	0.547041	0.5876
C	2.912087	1.652750	1.761965	0.0863
R-squared	0.325824	Mean dependent var		3.055069
Adjusted R-squared	0.271161	S.D. dependent var		5.387712
S.E. of regression	4.599602	Sum squared resid		782.7844
Durbin-Watson stat	1.185044	J-statistic		0.000000
Instrument rank	4			

RESIDUAL DIAGNOSTICS TEST



Series: Residuals	
Sample 1 41	
Observations 41	
Mean	1.73e-16
Median	0.509217
Maximum	11.83977
Minimum	-11.86429
Std. Dev.	4.423755
Skewness	-0.089478
Kurtosis	3.661901
Jarque-Bera	0.803152
Probability	0.669265

STABILITY TEST



TURNITIN RESULT

Beatrice Neeclaro

ORIGINALITY REPORT

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