



RESEARCH ARTICLE ↓

Ripple Effect of Globalization on the Economic Development of Nigeria: An ARDL Perspective

Authors

Okolie, Paschal I. P., PhD^{1*} and Okoye, Malachi C.²

Authors	Affiliation
1 st	Department of Management, Accounting and Finance, The University of America, Curacao
2 nd	Department of Banking and Finance, Enugu State University of Science and Technology, Agbani, Nigeria

Abstract

The study investigated the ripple effect of globalization on the economic development of Nigeria. The following are the specific objectives; to ascertain the effect of foreign direct investment on real gross domestic product in Nigeria; to examine the influence of portfolio investment on real gross domestic product. This study utilized secondary data obtained from the Central Bank of Nigeria Statistical Bulletin and from the relevant literatures. Ex-post facto research design was employed. The study adopted Auto Regressive Distributed Lag Model (ARDL) Regression analysis for hypothesis testing. From the analysis the result revealed that Foreign Direct investment (FDI) has no positive and non-significant effect on Nigerian Gross Domestic Product. (t-statistics is 1.221813 while the probability value is 0.2452). Portfolio investment has no positive and non-significant effect on Nigerian Gross domestic product. (t-statistics is 0.902370 while the probability value is 0.3846). we conclude that globalization has positively impacted on economic development in Nigeria. In view of the above, the study recommended that government should concentrate on providing the basic infrastructures to support the local organized private sector that are ready to invest domestic funds into the economy. Nigeria should ensure that it aligns its exports and imports components with appropriate policies that will reduce importation of consumer goods and other technologies. This will ensure that the Nigerian economic growth is stimulated by trade openness.

Keywords: Economic Development; Globalization; Foreign Direct Investment; Auto Regressive Distributed Lag Model; Real Gross Domestic Product

Introduction

The continuous integration and interconnectedness between regions, countries, and cultures through economic, social, and political systems have invariably evolved human societies' living standards in absolute as well as relative terms (Incekara & Savrul, 2018). As part of this constant evolution, globalization has played a significant role especially since the industrial revolution ushered in immense innovations. According to Jenkin & Thomas (2018) globalization refers to increases in the movement of finance, inputs, information, and Science across vast geographical areas. The benefits derived from globalization include the increase of net profit in many places; serving as poverty reduction measure and the improvement in the level of food production. It is also defined as the term used to describe the recent influence of modernization in communication and transport systems on trade and the growing interdependence of countries due to economic output.

From an economic, social, cultural, and technical perspective, globalization has brought about free trade and capital flows, migration possibilities, religion, work ethic, and mechanical or technological advancements which have significantly defined global growth and development patterns since the mid-19th century. Economic globalization has since gone through multiple transformations. Of recent, this process of market liberalization and deregulation now results in more tariff and trade barrier flexibility, the relatively free flow of goods and services, physical and human capital, in-and-outward foreign investment, and technology spill overs well beyond geographical borders of our contemporary economies (Haar, 2017). Globalization is the tendency of investment funds and businesses to move beyond domestic and national markets to other markets around the globe, allowing them to become interconnected with different markets. Accordingly, globalization provides organizations a superior competitive position with lower operating costs, to gain greater numbers of products, services and consumers. This approach to competition is gained via diversification of resources, the creation and development of new investment opportunities by opening up additional markets, and accessing new raw materials and resources (Incekara and Savrul, 2018).

Globalization has begun to dismantle the barriers that traditionally segregated local business opportunities and local firms from their international counterparts. Local markets are becoming integral parts of broader, global markets (Etemad and Wright, 2013). Globalization led to major increases in worldwide trade and exchanges in an increasingly open, integrated, and borderless international economy. There has been remarkable growth in such trade and exchanges, not only in traditional international trade in goods and services, but also in exchanges of currencies, in capital movements, in technology transfer, in people moving through international travel and migration, and in international flows of information and ideas (Intriligator, 2016).

Nigeria adopted globalization policy in 1986, when IMF and World Bank conditions were adopted which led to the introduction of Structural Adjustment Program (SAP) (Incekara, & Savrul, 2018). Subsequent to the adoption, implementation and the policy, its impact immediately manifested on the Nigeria's rural economy due to the deregulation of agro inputs such as fertilizer and improved seeds which appears to be the major commodities the rural dwellers relied on for their primary occupation (farming). It started with the removal of administrative price distortion and re-distribution of resources in favor of large scale and small holder agriculture at the detriment of local farmers. The withdrawal of subsidy especially on fertilizer happened as a result of government claim that the subsidy did not get to the farmers for whom they were meant for' (Etemad & Wright, 2017). Trade and exchange policies were introduced while government involvement diminished, liberalization of agricultural input market, input subsidies was removed as the same time the liberalization of interstate was also introduced (Incekara & Savrul, 2018).

According to Kareen, Bakare & Ologunla (2021), globalization has eased international trade and commerce, facilitated foreign investment and the flow of capital while calling for greater accountability and responsiveness of leaders to their people globalization has often pressed African leaders to adopt policies and measures that are diametrically opposed to the feeling and sentiments of vast majority of their people. Globalization aids cultural diffusion and infiltration of new ideas and values. Through globalization, developing countries have adopted western culture which some scholar called it westernization or modernization (Shangquan, 2018). Information and communication technologies made information dissemination easier between individual, communities and countries thereby aiding social interaction and acquisition of new ideas easier.

Statement of Problem

Globalization has reduced and limited African sovereignty in the political sphere to the extent that they have no or less control on the economy or fiscal matters of their countries as a result of impositions of modern strategies and policies of development brought in by the International Monetary Fund (IMF) the World Bank and World Trade Organization (WTO) for instance, the introduction of Structural Adjustment Program (SAP) by IMF and Adopted by the Nigerian government. This policy of liberalization of trade has tremendously benefited the developed countries and the East Asian nations because it helps them in increasing their trade with and their integration into the global market. The structural reform has improved the standard of living and assisted significant number of their people in alleviating their poverty. However, the opposite happened to Nigeria seems to negatively be affected by this change in global trading system especially on the rule that govern international trade. Since the introduction of the adjustment policy, the country faced massive retrenchment of workers in both public and private sectors, devaluation of her currency has terribly affected the local producers with lost due to the fall of the essential commodity prices in both global and local markets. These problems are largely assumed to be the triggering factor of political, economic, social and ethno-religious crises affecting the country for decades. The problem necessitated the need to examine the ripple effect of globalization on the Economic Development of Nigeria: An ARDL Perspective from 2005-2021.

Objectives of the Study

The broad objective of the study is to examine the ripple effect of globalization on the economic development of Nigeria from 2005-2021. The following are the specific objectives:

1. Ascertain the effect of foreign direct investment on real gross domestic product in Nigeria from 2005-2021;
2. Examine the influence of portfolio investment on real gross domestic product from 2005-2021;

Hypotheses of the Study

The following null hypothesis will guide the study

1. Foreign direct investment has no positive and significant effect on real gross domestic product in Nigeria;
2. Portfolio investment has no positive and significant influence on real gross domestic product;

Review of Related Literature

Conceptual Review

Globalization

Globalization is an interdisciplinary concept which applies to many areas of human interaction and systems. Due to the diversity of the areas of human interaction to which it applies, there is no specific and all-embracing meaning and definition of globalization. Each person who has written on the subject has attempted to make relevant interpretation of it, only to suit his area of interest. However, major areas of focus include economic, political and cultural systems, hence we have such descriptors as economic globalization, political globalization and cultural globalization (Adenuga, 2017).

In particular, in the realm of economics and business, globalization is viewed with emphasis on the free flow of economic resources and products. For instance, Baker (2016) from a market stand point, views globalization as the driving of societies into global commonality and thus harmonizing markets everywhere. In other words, it is the creation of a common market for all. He states that the objective is to allow for easy access to markets. In the view of Ball, (2015) globalization is the process of international integration of goods, technology, labour and capital. It involves implementing global strategies which link and coordinate the international activities of organizations on a world-wide basis. The objective is to ensure free flow of goods and resources across nations of the world. A more business-oriented definition is given by Pearce and Robinson (2013) who defined globalization as the strategy of approaching worldwide markets with standardized products. Also viewing it from business stand point, Sagagi (2017) defined globalization as the integration of national economies through trade and capital flows, made possible by

trade liberalization, opening of large and new markets, formidable increase in efficiency, the removal of capital control and the advancement of technology.

Globalization is the result of increasing integration of economies around the world, particularly through the movement of goods, services, and capital across borders which also led to the movement of labour and technology across international borders. The term became more common in the 1980s, reflecting technological advances that made it easier and quicker to complete international transactions both trade and financial flows. Globalization refers to an extension beyond national borders of the same market forces that have operated for centuries at all levels of human economic activity, village markets, urban industries, or financial centres (Adenuga, 2017).

Globalization is the tendency of investment funds and businesses to move beyond domestic and national markets to other markets around the globe, allowing them to become interconnected with different markets. Accordingly, globalization provides organizations a superior competitive position with lower operating costs, to gain greater numbers of products, services and consumers. This approach to competition is gained via diversification of resources, the creation and development of new investment opportunities by opening up additional markets, and accessing new raw materials and resources (Incekara and Savrul, 2018).

Adenuga (2017) sees globalization as a process of creating a global market place in which all nations are increasingly forced to participate. The point to note is that all of the views expressed above point to the fact that globalization is the creation of a borderless world economy for business and economic activities such that organizations can spread their operations across many nations without restrictions. It is indeed a new paradigm in international economic relations. Essentially, it is a phenomenon of modern capitalism aimed at creating a borderless global economy. The major highpoint of globalization is the removal of trade barriers among countries (Etemad and Wright, 2017).

Globalization led to major increases in worldwide trade and exchanges in an increasingly open, integrated, and borderless international economy. There has been remarkable growth in such trade and exchanges, not only in traditional international trade in goods and services, but also in exchanges of currencies, in capital movements, in technology transfer, in people moving through international travel and migration, and in international flows of information and ideas (Intriligator, 2015). Financial and industrial globalization is increasing substantially and is creating new opportunities for both developed and developing countries. However, developed and developing countries basically have different expectations in this process. While integration and globalization of the developing countries mean of initiating industrialization, it means increase of the rate of industrialization for the developed countries (Incekara and Savrul, 2012). For developing countries, this has led to both positive and negative effects such as increased standard of living, access to new markets, widening disparity in incomes, decreased employment.

The concept of globalization received attention from researchers because of its generally recognized importance as an economic factor, but seemingly also due to of the lack of a generally accepted definition. Although globalization has become a widely used term, equally widespread is its related misconception. An aim for academic research on globalization should be describing the relationship between visible elements and the broad term globalization, as this will lead to awareness (Vinig and Kluijver, 2014). In this framework, when the economic channels that the globalization penetrate the economy questioned the concepts such as innovation and entrepreneurship come forward.

Foreign Direct Investment

Foreign direct investment (FDI) is an investment made to acquire a lasting management interest (normally 10% of voting stock) in a business enterprise operating in a country other than that of the investor defined according to residency (Olusanya, 2016). Such investment may take the form of either "Greenfield" investment (also called mortar and brick investment) or merger and acquisition (M&A), which entails the acquisition of existing interest rather than new investment. Foreign direct investment comprises not only merger and acquisition and new investments, but also reinvested earnings and loans and similar capital transfer between parent companies and their affiliates, (Asinya, & Nelson, 2014). Countries could be host to foreign direct investment projects in their own countries and a participant in investment projects in other countries. A country's inward foreign direct investment position is made

up of the hosted foreign direct investment projects, while outward foreign direct investment comprises those investment projects owned abroad.

Kumar (2017) described Direct Foreign Investment (DFI) in several ways. First and most likely it may involve parent enterprise injecting equity capital by purchasing shares in foreign affiliates. Second, it may take the form of reinvesting the affiliate's earning. Third, it may entail short-or foreign investment as a share of Gross Domestic Product has grown rapidly, becoming the largest source of capital moving from developed nations to developing nations. Jenkin and Thomas (2018) are of opinion that FDI is expected to contribute to economic growth include the provision of foreign capital as well as crowding in additional domestic investment. By promoting both forward and backward linkages with the domestic economy, additional employment is indirectly created and further economic activity stimulated. Adegbite and Ayadi (2014) stated that FDI helps fill the domestic revenue-generation gap in a developing economy, given that most developing countries' governments do not seem to be able to generate sufficient revenue to meet their expenditure needs. Other benefits are in the form of externalities and the adoption of foreign technology.

Foreign direct investment includes; external resources including technology, managerial and marketing expertise and capital. All these generate a considerable impact on host nation's productive capabilities and the success of government policies of stimulating the productive base of the economy depend largely on her ability to control adequate amount of FDI comprising managerial, capital and technological resources to boost the existing production capacity (Omankhanlen, 2015). Foreign direct investment (FDI) is a direct investment into production or business in a country by an individual or company of another country, either by buying a company in the target country or by expanding operations of an existing business in that country. Foreign direct investment is in contrast to portfolio investment which is a passive investment in the securities of another country such as stocks and bonds.

Olopoenia (2015) observed that foreign investment could be seen as an additional factor of production and as a supplement to the national savings effort of the capital importing country. This is meant to relax both the foreign exchange and savings constraint on the rate of growth of output in the recipient country. Agada and Okpe (2012) saw FDI as an attempt by individuals, groups, companies and government of a nation to move resources of productive purpose across its country to another country with the anticipation of earning some surplus. Otepola (2014) asserted that FDI has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of capital formation in these countries, though their share in the global distribution of FDI continue to remain small or even declining.

Portfolio Investment

Banjoko, (2013) defined Foreign Portfolio Investment (FPI) to include investments by a resident entity in one country in the equity and debt securities of an enterprise, resident in another country which seek primarily capital gains and do not necessarily reflect a significant and lasting interest in the enterprise. The category includes investments in government bonds, notes, money market instruments and financial derivatives other than those included under direct investment or in other words, investments which are both below the 10 percent rule and do not involve affiliated enterprises. In addition to securities issued by enterprises, foreigners can also purchase sovereign bonds issued by government. According to IMF (1996) Coordinated Portfolio Investment Survey Guide, the essential characteristics of instruments classified as portfolio investment is that they are traded or tradable and fundamentally made of up of: i) Equity securities: These have been defined in the Survey as instruments and records acknowledging after the claims of all creditors have been met claims to the residual values of incorporated enterprises (shares, stocks, mutual funds, and investment trusts ii) Debt securities: They include bonds and notes, money market securities (instruments such as treasury bills, commercial and finance paper, negotiable certificates of deposits with maturities of one year or less), and financial derivatives or secondary instrument, such as options Foreign Portfolio Investment (FPI) is perceived as one of the most important strategies for the promotion of economic growth and development in developing countries such as Nigeria. This is because Foreign Portfolio Investment can serve as catalyst for growth by increasing the opportunity for developing the countries integration into global financial and capital flows, expand employment and export base, generate technological capability-building and efficiency spill

overs to local firms, as well as establish investment arrangements that increase the potential of host countries for economic growth.

Foreign portfolio investment is a cross-border investment in securities with the intention of profit-making rather than management or legal control (Otepolo 2014). It involves equity and debt issuances including country funds, depository receipts and direct purchases by foreign investors of less than 10% control. Etemad, & Wright, (2017) explain that foreign portfolio investment is an aspect of international capital flows comprising of transfer of financial assets: such as cash, stock or bonds across international borders in want of profit. It occurs when investors purchase controlling interest in foreign companies or buy securities or notes. Just as trade flows result from individuals and countries by exploiting their own comparative advantage, so too, are capital flows the result of individuals and countries seeking to make themselves better off, moving accumulated assets to wherever they are likely to be most productive (ERP, 2006). This type of investment has become an increasing significant part of the world economy over the past three decades and an important source of fund to support investment not only in developed but also developing countries.

Foreign portfolio investment involves passive interest by an investor on securities such as foreign stocks, bonds or other financial assets, none of which entails active management or control of the securities issued by the investor. Unlike foreign direct investment, it is easier to sell securities and pull-out foreign portfolio investment, making it more volatile to the economy than foreign direct investment. FPI is the entry of funds into a country where foreigners deposit money in a country's bank or make purchases in the country's stock and bond markets, sometimes for speculative purposes. Foreign direct investment was initially considered as part of portfolio investment and differences in rates of interest assumed as the main cause of capital inflows. It was believed that by influence of interest rate, capital moves to any economy with expected higher returns. The main distinguishing feature between FDI and foreign portfolio investment (FPI) is that FPI is the term used to describe short term investment in shares and bonds in host country and most of the times this is speculative in nature. Another important distinctive feature of FPI is the lack of control of the affiliate firm, because of which it is often categorized as an indirect investment (Etemad, & Wright, 2017).

Economic Growth

Economic growth is defined as a positive change in the national income or the level of production of goods and services by a country over a certain period of time. This is often measured in terms of the level of production within the economy. Economic growth means an increase in the capacity of an economy to produce goods and services, compared from one period of time to another. Economic growth is a process by which a nation wealth increases over time. The most widely used measures of economic growth is the rate of growth in a country's total output of goods and services gauged by the gross domestic product (GDP) Economic growth can also be refers to as the increase of per capita gross domestic product (GDP) or other measures of aggregate income, typically reported as the annual rate of change in the real GDP. The concept of economic growth is associated with the growth in population, resources development, technological advancement and increasing capital formation. Economic growth can be defined as the increase in GDP and per capita income of the country (Investopedia, 2018).

Economic growth of a particular country can be measured in terms of varied objects. Economic growth could be said to combine three progresses: Capital accumulation, population growth and labour force.

- i. Capital accumulation involves a trade-off between present and future consumption, giving up a little now so that more can be had later.
- ii. Population growth and the associate increase in labour force have been considered a positive factor in stimulating economic growth.
- iii. A larger labour force means more productive workers, and a large population increases the potential size of domestic markets.

Theoretical Framework

This study is anchored on the following theories Drucker Theory, Theodore Levitt Theory of Globalization of Market and Schumpeter's Theory of Innovation.

Drucker Theories (1946)

Drucker on Entrepreneurship Peter F. Drucker observe that "an entrepreneur is one who always searches for change, responds to it and exploits it as an opportunity." he emphasized two critical factors – innovation and resource- that led to the emergence of entrepreneurship. According to him, change is the real hub of entrepreneurship which creates the supply. A thing is regarded as a resource when its economic value is recognized. For example, mineral oil was considered worthless until the discovery of its use. Similarly, purchasing power was considered an essential resource by an innovative American entrepreneur who invented instalment buying. According to Drucker, successful entrepreneurship involves the following things- Value and satisfaction obtained from a resource by the consumer are increased new values are created Material is converted into a fund or existing resources are combined in a new or more productive configuration Entrepreneurship is the practice which has a knowledge base. Entrepreneurship is not confined to huge businesses and economic institutions, it is equally important to small business, and non-economic institutions Entrepreneurship behaviour rather than personality trait is more important to enhance entrepreneurship. The foundation of entrepreneurship lies in concept and theory rather than in intuition.

Theodore Levitt Theory of Globalization of Market (1983)

Even though the term globalization in recent years has been utilized, especially following the technological revolution in communications and the creation of cyberspace, one of the first significant arguments on "Globalization of the Markets", under its present way, can be found in a 1983 article by Theodore Levitt, in the Harvard Business Review 10(10). The functionalist aspect of the globalization concept is what distinguishes it from the mere notion of internationalization, which refers to a quantitative process but not necessarily to an epochal shift of a more qualitative kind. According to Levitt, globalization processes are qualitatively different from internationalization processes. They involve not merely the geographical extension of economic activity across national boundaries, that are internationalization, but also and more importantly, the functional corporation of such internationally dispersed operations. The current process of globalization produces a new global-functional unity.

Schumpeter's Theory of Innovation:

Joseph Schumpeter (1934) propounded the well-known innovative theory of entrepreneurship. Schumpeter takes the case of a capitalist closed economy which is in stationary equilibrium. He believed that entrepreneurs disturb the stationary circular flow of the economy by introducing an innovation and takes the economy to a new level of development. The activities of the entrepreneurs represent a situation of disequilibrium as their activities break the routine circular flow. Innovations of entrepreneurs are responsible for the rapid economic development of any country. Talking about innovation, he referred to new combinations of the factors of production, Schumpeter had assigned the role of innovator to the entrepreneur, who is not a man of ordinary managerial ability, but one who introduces something entirely new.

Innovation could involve any of the following:

- i. Innovation of new products.
- ii. Innovation in novel methods or processes of production.
- iii. The opening up of a new market.
- iv. Entrepreneurs might find new source of supply of raw materials
- v. Innovation in management. This means reorganization of an industry.

Let us try to understand the meaning of different facets of the term innovation. The introduction of new product means the product which the consumers have not seen and is of a new and better quality and utility. A new method of production refers to a novel process not yet been used in manufacturing and commercial production. This may increase the productivity and lower cost of production. The discovery of a new market means a new market which may have existed before but was not entered by the enterprise for commercial purposes. A new source of raw

material similarly refers to a source or a place which has not been commercially exploited by the enterprises before. Innovation in management refers to reorganization and reconciliation of the position of the enterprise in the industry by building a monopoly like control or dismantling existing monopoly of others in the industry.

Schumpeter was very explicit about the economic function of the entrepreneur, whom he considered as the prime mover in economic development and the entrepreneur's task is to innovate or carry out new combinations. Schumpeter had differentiated between invention and innovation. We should understand that invention refers to creation of new materials and innovation refers to application of new materials into practical use in industry. Similarly, there is a distinction between an innovator and an inventor. The inventor is the one who invents new materials and new methods. On the other hand, the innovator is the one who utilizes these inventions and discoveries in order to make new combinations. Bringing about innovations is the main task of the entrepreneur and not the maintenance of the enterprise. Entrepreneurs dream and have a willingness to establish a private kingdom. They enjoy creating and getting things done. These "innovating entrepreneur" has played an important role in the rise of modern capitalism.

Empirical Review

Emeh (2021) examined Economic Globalization and Entrepreneurship Development in an Emerging Economy in South Eastern, Nigeria. The study was conducted through a survey in which copies of the questionnaire were distributed to elicit a response from the respondents which are small and medium businesses in South Eastern, Nigeria. The population size was 522. A sample size of 513 was obtained from the population from the field work. The study used the Analysis of Moment Structures (AMOS) to test this moderating effect, but could only establish a negative moderating effect of constraint and trade deregulation on job creation.

Kareen, Bakare, and Ologunla (2021), researched the nexus between globalization and economic growth in Nigeria from 1970 to 2008 using 2341 workers of federal ministries of works and housing. Primary data was applied through a questionnaire in which they were asked whether globalization has affected patronage of firms' product and their collective impacts on their ministry's performances. 1290 (55.10%) agreed that growth of firms with international connection considerably changed GDP Nigeria; 815 (34.81%) agreed that hi-tech firms were greatly influenced by a high spate of globalization which meant an increase in patronage which couldn't have been without aftermath of globalization. 236 (10.08%) instead said that the market value of foreign firms was mainly helped by international politics which castrated the local market.

Ejiogu, Chima, and Nwede (2017) conducted a study on Globalization and Performance of Manufacturing Firms in Port Harcourt. The study employed a cross-sectional survey method which is an aspect of quasi-experimental research design. Data was collected via-structured questionnaire and personal interviews. 160 copies of the inquiry out of the 211 copies distributed were completed and returned. The analysis of data was done with the Spearman's rank order correlation coefficient with the assistance of the Statistical Package for Social Sciences (SPSS). The outcome of the research is that globalization is positive and it has a good relationship with the performance of firms.

Agu, Nnaemeka, and Nneka (2016) carried out a study on the Impact of Globalization on Nigeria Manufacturing Sector: A Study of Selected Manufacturing Firms in Enugu, the study aimed to pursue the following objectives: to evaluate the impact of trade liberalization on the consumption of Nigeria made products, to determine the impact of technology on product quality in the Nigeria manufacturing industry, to ascertain the impact of globalization on employee job relations in the Nigeria manufacturing industry. The study had a population size of 640, out of which a sample size of 246 was realized using Taro Yamane Formula at 5% error to tolerance and a 95% level of confidence. The instrument used for data collection was primarily questionnaire and interview. The total numbers of 246 copies of the questionnaire were distributed while 230 copies were returned. The descriptive research design was adopted for the study. Three hypotheses were tested using linear regression statistical tool. The findings indicate that trade liberalization has significant negative effect on the consumption of Nigeria made products ($r = 0.893 > r = 0.544$; $tc=29.976 > tt= 4.321$; $p<.05$). The study also found that technology and globalization have a positive impact on product quality and employee relations respectively in the Nigeria manufacturing industry.

Methodology

This study adopts an Ex-post facto. This design is used because variables used for analysis were existing data the researcher has no influence on. The study was carried out in Nigeria and the sources of data for this research is secondary source from 2005 – 2021. The study used descriptive statistics, correlation, and regression techniques in analyzing the data for the study, using Econometric Views (E-Views) version 9.0. The study specifies a model which attempts to determine the relationship between X and Y. The dependent variable is economic growth (GDP) while the independent variables are Foreign Direct Investment (FDI), and Foreign Portfolio Investment (FPI). The Auto Regressive Distributed Lag Model (ARDL) Regression analysis shall form the main procedure to be followed in testing our hypotheses in this work.

ARDL specification for the model

$$\Delta(\lnRGDP)_t = \pi_0 + \pi_1(\lnRGDP)_{t-1} + \pi_2(FDI)_{t-1} + \sum_{t=0}^m \pi_7 \Delta \lnRGDP_{t-1} + \sum_{t=0}^n \pi_8 \Delta \ln FDI_{t-1} + \sum_{t=0}^o \pi_9 \Delta \ln EPI_{t-1} + \mu_t \dots \dots \dots (3.1)$$

Where

- RGDP = Real Gross Domestic Product (dependent variable)
- FDI = Foreign direct investment
- FPI = Foreign portfolio investment
- INFR = Inflation Rate (Control Variable)

Δ denotes the first difference operator

π_0 is the drift component,

μ_t is the white noise residuals.

The left-hand side in Equation above equation represents Real gross domestic product. The first until fifth expressions (π_1 – π_5) on the right-hand side correspond to the long-run relationship between the variables.

The followings are the ARDL model for each hypotheses;

Hypothesis One

H₀₁: Foreign direct investment has no positive and significant effect on real gross domestic product in Nigeria;

$$\Delta(\lnRGDP)_t = \pi_0 + \pi_1(\lnRGDP)_{t-1} + \pi_2(\ln FDI)_{t-1} + \sum_{t=0}^m \pi_3 \Delta \ln RGDP_{t-1} + \sum_{t=0}^n \pi_4 \Delta \ln FDI_{t-1} + \mu \dots \dots \dots (3.2)$$

Hypothesis Two

H₀₁: Portfolio investment has no positive and significant influence on real gross domestic product;

$$\Delta(\lnRGDP)_t = \pi_0 + \pi_1(\lnRGDP)_{t-1} + \pi_2(\ln FPI)_{t-1} + \sum_{t=0}^m \pi_3 \Delta \ln RGDP_{t-1} + \sum_{t=0}^n \pi_4 \Delta \ln FPI_{t-1} + \mu_t \dots \dots \dots (3.2)$$

Description of Model Variables

The variables included in the model are classified as dependent and independent variables. The dependent variable of the study is Economic Growth (GDP) while Foreign direct investment, Portfolio investment, Values of import, Values of export is the independent variable.

- a. **Real gross domestic product.** It is the total value of goods produced and services provided in a country during one year. It is a proxy for economic growth.
- b. **Foreign direct investment:** Foreign direct investment (FDI) is an investment made to acquire a lasting management interest (normally 10% of voting stock) in a business enterprise operating in a country other than that of the investor defined according to residency

- c. **Portfolio investment:** Foreign Portfolio Investment (FPI) to include investments by a resident entity in one country in the equity and debt securities of an enterprise, resident in another country which seek primarily capital gains and do not necessarily reflect a significant and lasting interest in the enterprise.
- d. **Inflation Rate:** According to Jhingan (2005), inflation refers to as a persistent and appreciable rise in the general level of prices. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time (Backus, 2009).

Techniques of Data Analysis

The empirical analysis employed the Auto Regressive Distributed Lag Model (ARDL) technique of econometrics for hypothesis 1-4. The ARDL technique was used for estimating the equation models that were specified under the model specification. This method is popularly used because of its simplicity and strong theoretical properties such as linearity, unbiased and minimum variance among a class of unbiased estimator (Gujarati, 2007).

The choice of these econometric approaches is premised on the fact that time series data are sometimes prone to fluctuation that may cumulate into spurious regression result. It is important to note that time series data are prone to error due to fluctuations in business activities from which most of our data are derived. Hence, the choice of these econometric techniques helped us not only to determine how the variables that were considered in this study have influenced the real GDP in Nigeria. They also helped us to correct pitfalls that would have influenced time series data used in econometric analysis, provided direction of causality as well as assist us to determine both short and long-run relationship amongst the variables in this investigation.

Data Analyses

Unit Root

While analyzing the econometric model specified, it is imperative to find the properties of the data employed. Thus, the Augmented Dickey Fuller (ADF) unit root test was employed. The results of the Stationarity test are shown below.

Table 1: Augmented Dickey-Fuller Test Result

<i>Variables</i>	<i>ADF – statistic</i>	<i>Critical values 1%</i>	<i>Critical values 5%</i>	<i>Critical values 10%</i>	<i>Prob.</i>
<i>D(LRGDP)</i>	-3.597247	-3.920350	-3.065585	-2.673459	0.0186
<i>D(LFDI)</i>	-4.300851	-3.959148	-3.081002	-2.681330	0.0053
<i>D(LPI)</i>	-3.633874	-3.959148	-3.081002	-2.681330	0.0183

Source: Researcher’s Computation using Eviews, 9.0.

Table 1 shows the values for ADF test statistics of the variables used for the study. At first difference, the absolute values of the ADF test statistics of Real Gross Domestic Product is greater than the absolute value of the critical Value at 5% critical level of probability, showing that at first difference of unit root test value of RGDP is stationary.

At first difference, the absolute value of the ADF test statistics of Foreign direct investment (FDI), the absolute value of the ADF test statistics of portfolio investment (PI) are greater than the absolute value of the critical value at 5% level of probability, showing that FDI, PI, INFR are stationary at 5% level of probability.

At first difference, the absolute values of the ADF test statistics of Import are less than the absolute value of the critical Value at 5% critical level of probability, showing that at first difference of unit root test value of import is non-stationary. Thus, all the variables can be said to be stationary except values of import. Given this situation, we proceed to test for normality using Jaque-Bera Test statistics.

Normality Test

Table 2: Descriptive Statistics

	LRGDP	LFDI	LPI
Mean	10.89045	9.733396	8.825414
Median	11.00093	9.456161	9.041697
Maximum	11.20344	11.49900	10.44166
Minimum	9.774209	8.141044	6.798052
Std. Dev.	0.360815	1.144560	1.262493
Skewness	-1.832871	0.375813	-0.173993
Kurtosis	6.337634	1.908487	1.560880
Jarque-Bera	17.40904	1.244076	1.552780
Probability	0.000166	0.536849	0.460064
Sum	185.1376	165.4677	150.0320
Sum Sq. Dev.	2.083003	20.96028	25.50224
Observations	17	17	17

Source: Researcher's Computation using Eviews, 9.0.

Table 2 shows a descriptive statistic of the variables used for the study. The normality test adopted is the Jarque-Bera (JB) test of normality. The JB test of normality is a large sample test and is based on the OLS residuals. The test computes the skewness and kurtosis measures of the OLS residuals. From the above analysis all the probability of Jarque-Bera statistic is greater than 5% i.e., 0.000166, 0.536849, 0.460064 are greater than 0.05 except trade openness, therefore we conclude that all the variables except trade openness are normally distributed. From the above result showing that all the variables except one are normally distributed we have no reason not to analyse to determine if a long-run relationship exist between the dependent and independent variable.

Test of Hypotheses

Hypothesis One

H₀₁: Foreign Direct investment (FDI) has no positive and significant effect on Nigerian Real Gross Domestic Product.

Table 3: Regression Analysis (Auto Regressive Distributed Lag Model (ARDL))

Dependent Variable: LRGDP

Method: ARDL

Date: 10/31/22 Time: 23:00

Sample (adjusted): 2006 2021

Included observations: 16 after adjustments

Maximum dependent lags: 1 (Automatic selection)

Model selection method: Akaike info criterion (AIC)

Dynamic regressors (0 lag, automatic): LFDI INFR

Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LRGDP(-1)	-0.144443	0.295653	-0.488557	0.6340
LFDI	0.154560	0.126500	1.221813	0.2452
INFR	-0.000219	0.001385	-0.158216	0.8769

C	10.99911	2.886687	3.810290	0.0025
R-squared	0.157654	Mean dependent var		10.91289
Adjusted R-squared	-0.052932	S.D. dependent var		0.360190
S.E. of regression	0.369600	Akaike info criterion		1.059526
Sum squared resid	1.639248	Schwarz criterion		1.252673
Log likelihood	-4.476208	Hannan-Quinn criter.		1.069417
F-statistic	0.748643	Durbin-Watson stat		2.104647
Prob(F-statistic)	0.543768			

*Note: p-values and any subsequent tests do not account for model selection

Source: *Researcher's Computation using Eviews 9.0.*

$$\text{Equation: LRGDP} = 10.99911 + 0.154560(\text{LFDI}) - 0.000219(\text{INFR}) + \varepsilon_t$$

Based on table 3, the interpretation of the results as regard the coefficient of various repressors' is stated as follows:

The value of the intercept which is 10.99911 shows that the Nigerian Real Gross Domestic Product will experience 10.99911% increase when all other variables are held constant.

The estimated coefficient which is 0.154560(LFDI) shows that a unit change in foreign direct investment will cause 15% increase in Real Gross Domestic Product. The estimated coefficient which is -0.000219(INFR) shows that a unit change in inflation rate will cause -0.0219 % decrease in Real Gross Domestic Product.

F-Statistics shows that Foreign Direct investment (FDI) has positive and significant effect on Nigerian Real Gross Domestic Product with F-stat (0.748643; p-value = 0.543768 > 0.05).

From the analysis R^2 is 0.157654 showing that 15% variation in Real Gross Domestic Product (RGDP) can be explained by the independent variable Foreign Direct investment.

Decision Rule

Reject H_0 if the statistic is > 2.0 and the probability of the t-statistics is < 0.05.

Decision:

The decision criteria is to reject H_0 if the statistic is > 2.0 and the probability of the t-statistics is < 0.05. It is shown in table 3 that the t-statistics is 1.221813 while the probability value is 0.2452, this depict that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H_0) is accepted and conclude that Foreign Direct investment (FDI) has no positive and non-significant effect on Nigerian Real Gross Domestic Product.

Hypothesis Two

H_{02} : Portfolio investment has no positive and significant effect on Nigerian Real Gross domestic product.

Table 4: Regression Analysis (Auto Regressive Distributed Lag Model (ARDL))

Dependent Variable: LR GDP
 Method: ARDL
 Date: 10/31/22 Time: 23:26
 Sample (adjusted): 2006 2021
 Included observations: 16 after adjustments
 Maximum dependent lags: 1 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (0 lag, automatic): LPI INFR
 Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LR GDP (-1)	-0.080599	0.292098	-0.275931	0.7873
LPI	0.104213	0.115488	0.902370	0.3846
INFR	8.05E-05	0.001399	0.057506	0.9551
C	10.84301	2.955327	3.668970	0.0032
R-squared	0.113049	Mean dependent var		10.91289
Adjusted R-squared	-0.108689	S.D. dependent var		0.360190
S.E. of regression	0.379259	Akaike info criterion		1.111125
Sum squared resid	1.726051	Schwarz criterion		1.304272
Log likelihood	-4.888998	Hannan-Quinn criter.		1.121015
F-statistic	0.509833	Durbin-Watson stat		2.062046
Prob(F-statistic)	0.682968			

*Note: p-values and any subsequent tests do not account for model selection

Source: Researcher's Computation using Eviews 9.0

Equation: $LR GDP = 10.84301 + 0.104213(LPI) + 8.05E-05(INFR) + \varepsilon_t$

Based on table 4, the interpretation of the results as regard the coefficient of various repressors' is stated as follows: The value of the intercept which is 10.84301 shows that the Nigerian Real Gross Domestic Product will experience 10.84301% increase when all other variables are held constant.

The estimated coefficient which is 0.104213(LPI) shows that a unit change in portfolio investment will cause 10% increase in Real Gross Domestic Product. The estimated coefficient which is 8.05E-05(INFR) shows that a unit change in inflation rate will cause 8.05E-05% increase in Real Gross Domestic Product.

F-Statistics shows that portfolio investment (FDI) has non- significant effect on Nigerian Gross Domestic Product with F-stat (0.509833; p-value = 0.682968 > 0.05).

From the analysis R^2 is 0.113049 showing that 1% variation in Real Gross Domestic Product (RGDP) can be explained by the independent variable portfolio investment.

Decision Rule

Reject H_0 if the statistic is > 2.0 and the probability of the t-statistics is < 0.05.

Decision:

The decision criteria is to reject H_0 if the t-statistics is > 2.0 and the probability of the t-statistics is < 0.05. It is shown in table 4 that the t-statistics is 0.902370 while the probability value is 0.3846, this depict that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H_0) is accepted and conclude that Portfolio investment has no positive and non-significant effect on Nigerian Real Gross domestic product.

Discussion of Result

In interpreting hypothesis one, the decision criteria is to reject H_0 if the statistic is > 2.0 and the probability of the t-statistics is < 0.05 . It is shown in table 3 that the t-statistics is 1.221813 while the probability value is 0.2452, this depicts that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H_0) is accepted and conclude that Foreign Direct investment (FDI) has positive and non-significant effect on Nigerian Gross Domestic Product.

In interpreting hypothesis two, the decision criteria is to reject H_0 if the statistic is > 2.0 and the probability of the t-statistics is < 0.05 . It is shown in table 3 that the t-statistics is 0.902370 while the probability value is 0.3846, this depicts that the t-statistics is less than 2.0 while the probability value is greater than 0.05; therefore, the null hypothesis (H_0) is accepted and conclude that Portfolio investment has positive and non-significant effect on Nigerian Gross domestic product.

Summary of Findings

From the analysis of the study, findings were made which include;

- i. Foreign Direct investment (FDI) has no positive and non-significant effect on Nigerian Gross Domestic Product (t-statistics is 1.221813 while the probability value is 0.2452).
- ii. Portfolio investment has no positive and non-significant effect on Nigerian Gross domestic product (t-statistics is 0.902370 while the probability value is 0.3846).

Conclusion

FDI has long been one of the most viable channels of wealth and technological transfer between the developed and the developing countries around the world. This study analyses the ripple effect of globalization on the economic development of Nigeria within a period 2005-2021 by applying time series analysis techniques. From the findings the study concludes that Foreign Direct investment (FDI) has positive and non-significant effect on Nigerian Gross Domestic Product, Portfolio investment has positive and non-significant effect on Nigerian Gross domestic product. Therefore, we conclude that globalization has positively impacted on economic development in Nigeria.

Recommendations

The following recommendations were made:

1. It is important that the government concentrate on providing the basic infrastructures to support the local organized private sector that are ready to invest domestic funds into the economy.
2. To further sustain foreign portfolio investment and to achieve other macroeconomic objectives of the government such as economic growth
3. Authorities should look for ways of strengthening the working mechanisms of the capital market especially against fraudulence to ensure the effectiveness of the policy tools in achieving the desired macroeconomic goals in the country.

References

- Adegbite, H. C. & Ayadi, O. O. (2014). Impact of foreign direct investment on telecommunication sector on Nigerian economy. *International Journal of Modern Social Sciences*, 2(3): 195-215.
- Adenuga, A. O. (2017). Information Technology and Globalization: The Challenges of Human Capital Development in Nigeria. *CBN Bullion*, (July/Sept), 45-55.
- Agada, G. O & Okpe, T. J. (2012). Determination of risks of foreign investment. *Journal of Economic and Social Research* 1(2)
- Asinya, F. & Nelson, G. (2014). Globalisation: What it means to small nations' a paper delivered at the inaugural lecture held in Kaula Lumpar in JDPC *Symposium on Globalisation and the Nigeria state* held on Mon-June 24th, 2015.
- Baker, M. J. (2016). *Marketing: An Introductory Text* (6th ed.). London: Macmillan Press Ltd.

- Ball, E. (2015). *Entrepreneurship: A Contemporary Approach*. U.S.A.: The Dryden Press, Harcourt Brace College Publisher Orlando.
- Banjoko, M. O. (2013). Incorporating Entrepreneurship Education into Building Technology Education Curriculum in Technical Colleges in a Developing Economy. *Technology Education Journal*. 9 (1) 27-33.
- Emeh, C. N., Ezenwakwelu C., Abugu J., Imhanrenialena, B., Okafor, L & Ulo, F. (2021). Economic Globalization and Entrepreneurship Development in an Emerging Economy. *Academy of Entrepreneurship Journal* 25(3), 1-11.
- Etemad, H., & Wright, R.W. (2017), "Globalization and Entrepreneurship: Policy and Strategy Perspectives", *Edward Elgar Publishing*, UK.
- Haar, J. (2017), "Globalization and Entrepreneurship in Latin America", *The Impact of Globalization on Latin America Task Force*, Center For hemispheric Policy, Florida.
- Incekara, A. & Savrul, M. (2018). Globalization of Social Entrepreneurship Opportunities", *Strategic Entrepreneurship Journal*, 2: 117–131.
- Incekara, A., & Savrul, M. (2012). The Effect of Globalization on Foreign Trade and Investment in Eurasian Countries. *International Conference on Eurasian Economies 23-30*, Almaty, Kazakhstan Republic (October, 11th–13th 2012).
- Intriligator, S. A. (2016). Globalization of Social Entrepreneurship Opportunities. *Strategic Entrepreneurship Journal*, 2: 117–131.
- Jenkin, M. & Thomas, M. (2018). The Effect of FDI on Economic Growth in MENA Region. *International Journal of Applied Economic Studies*, 3(1), 11-16.
- Kareem, G. Bakare, A. & Ologunla, Y. (2021). Globalisation and entrepreneurial development in Nigeria: the challenges and the opportunities. *Bangladesh e-Journal of Sociology*, 13(2), 116-134.
- Kumar, K. (2017). Key Issues for FDI Policy Re-formulation in Nigeria. *Journal of Economics and Development*, 16(3), 5-31.
- Olopoenia, R. A. (2015). Foreign investment and the growth rate of capital import countries. A Technical note. *The Nigerian Journal of Economic and Social Studies*, 26(2).
- Olusanya, O. G. (2016). Effects of Globalization on Foreign Direct Investment in Nigeria. *Loem Journal of Business and Economics (LJBE)* 1(1), 11-17.
- Omankhanlen, A. E. (2015). Foreign Direct Investment and its effect on the Nigerian Economy. *World Journal of Entrepreneurship, Management and Sustainable Development* 6(1)
- Otepolo, A. (2014). FDI as a Factor of Economic Growth in Nigeria. Dakar, Senega. *The Nigerian Journal of Economic and Social Studies*, 37(2&3): 205-222.
- Pearce II, J.A. & Robinson, R.B. (2013). *Strategic Management: Formulation, Implementation and Control* (8th ed.). London: McGraw-Hill, Irwin.
- Sagagi, M. S. (2017). *Globalization and Business Environment: Critical success factors for Corporate Leaders in Nigeria*. In B.A. Folarin et al. (Ed.), *Environment, Values and Policies in Nigeria: A Book of Readings*. EBAN, LASU, Ojo.
- Shangquan, T. (2018). Does Globalization Impact Entrepreneurship? Comparative Study of Country Level Indicators. *Sprouts: Working Papers on Information Systems*, 7(8). University of Amsterdam, Netherlands. SME. *Journal of International Management* 7(3).
- Vinig, T. and Kluijver, J. (2014). Does Globalization Impact Entrepreneurship? Comparative Study of Country Level Indicators. *Sprouts: Working Papers on Information Systems*, 7(8). University of Amsterdam, Netherlands.