

**EFFECT OF INTERNATIONAL MONETARY FUND AND WORLD BANK
LOANS ON NIGERIAN ECONOMIC GROWTH**

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This paper empirically investigated the effect of International Monetary Fund (MIF) and World Bank Loans on the Nigerian Economic Growth, covering the period 1981-2020. Employing a Bound Test co-integration approach, the study revealed prominent among others that a significant long-run relationship exists among the variables. Data were analyzed using the Auto-Regressive Distributed Lags (ARDL) Model using the Ordinary Least Square Approach. The study concludes that International Monetary Fund and World Bank Loans have significant effect on the Nigerian Economic Growth. It further revealed that MIF/ World Bank Loans affect Nigerian Foreign Direct Investment (FDI) and Nigerian Gross National Expenditure (GNE) as percentages of Gross Domestic Product (GDP), because these variables influence commerce which have effect on economic growth but the magnitude and direction of which depends on the circumstances in which they operate. Hence, the recommendation is that if the economy of Nigeria wants to experience real growth, then IMF/world bank loans should be appropriated to areas of Foreign Direct Investment (GDI) and need such as infrastructural development and education. Also, IMF/world bank loans should be appropriated to areas of Nigerian Gross National Expenditure. In addition these loans are better priotized in locations where the

comparative advantage is in the hands of a segment which can wield it most effectively.

Key Words: Economic Growth, International Monetary Fund, and World Bank Loans

1. INTRODUCTION

The International Monetary Fund/World Bank has been working with Nigeria to reduce poverty, improve human capital, diversify the country's revenue through non-oil sectors, and assist with economic management. The World Bank, together with the International Monetary Fund (IMF), was established at the 1944 Bretton Woods Conference with the goal of promoting economic and monetary stability and fostering economic growth around the world. Since then, the International Monetary Fund/World Bank has offered financial support to a wide range of developing and developed countries, most recently a number of peripheral European countries such as Hungary, Greece, and Portugal. Consequently, the economic implications of IMF/World Bank aid have been the subject of an ongoing and very contentious debate. The conclusions are very disappointing: the study to date suggests that the influence on growth has been modest, if not negative (Osundina, 2018).

In theory, the International Monetary Fund/World Bank intervention should improve economic growth both directly and indirectly, for a number of reasons. First, during times of crisis, the International Monetary Fund/World Bank provides policy guidance. Following that guidance should help to enhance the economic climate and, as a result, stimulate future growth. Second, International Monetary Fund/World Bank loans are typically subject to stringent requirements, such as altering monetary policy or enacting fiscal restraint. Loans from the International Monetary Fund/World Bank are only disbursed if the receiving country meets the conditions. Following IMF/World Bank advice and adopting the conditionality should have comparable effects: improved policymaking, if credible, is perceived by consumers as suggestive of a lower tax burden and higher growth in the future, leading them to raise their spending, hence fueling growth. Finally, the money given serves to alleviate the financial constraints that the countries confront and should stimulate their economies. However, the International Monetary Fund/World Bank was hesitant to distribute cash in Nigeria, and most projects were moving slowly and were unsatisfactory. From 2000 to 2007, the International Monetary Fund/World Bank was committed to reforming macroeconomic stability and governance. According to World Bank ratings, this is rated as moderately satisfactory. Other pillars of concentration included social service delivery, community empowerment, and establishing a foundation for non-oil growth. According to the International Monetary Fund, all of these proved to be moderately disappointing. Although progress was slow, by 2007, better results were beginning to emerge from Nigerian projects (Adebiyi, & Olowookere, 2016)..

In 2016, Nigeria ranked as the 12th highest loan recipient from the International Monetary Fund/World Bank with 6.6 billion dollars. As of 2018, the World Bank has a total of 31 projects in 772 locations in Nigeria. This totals \$9.21 billion in programs in areas such as social protection, health, agriculture, fishery, forestry, energy, public administration, and other areas in need of improvement. However, since 1958, the World Bank has approved approximately 225 projects in Nigeria, the majority of which have been funded by IDA credits and IBRD loans (Uguru, 2017).

This study is motivated by the fact that, despite Nigeria receiving debt relief of US\$18 billion from the Paris Club in 2005, the situation remained virtually unchanged (Stephen & Obah, 2019). The questions then are: Why has public borrowing not accelerated the pace of growth of the Nigerian economy? A position substantiated by Egbetunde (2018), who noted that nations borrow to boost economic performance and reduce the poverty level in an economy.

1.1 Statement of problem

It is interesting to note that the Nigerian economy's inability to pay its debt service obligations has resulted in a debt overhang or debt service burden that has hampered her growth and development (Asaogwa, & Ezema, 2018). Nigeria's debt servicing problem began in 1978, following a drop in global oil prices. Prior to this incident, Nigeria had some small debts from the World Bank in 1958 with a loan of US\$28 million for railway development and the Paris Club debtor nations in 1964 from the Italian government with a loan of US\$13.1 million for the construction of the Niger dam. The first major borrowing of US\$1 billion known as the -Jumbo loan- was in 1978 from International Capital Market (ICM) (Adesola, 2019).

The persistent increase in the level of external debt service payment has resulted in massive imbalances in fiscal deficits and budgetary restraints that have hampered Nigerian economic progress. The upshot of Nigeria's debt morass could be certain unfavorable circumstances, such as crowding out of private investment and weak GDP growth (Adebiyi & Olowookere, 2016). Huge foreign debt does not always signify weak economic growth; it is a country's failure to satisfy debt service obligations, which is exacerbated by a lack of awareness about the type, structure, and scale of the debt in question (Rafindadi, & Musa, 2019). This is without a doubt the most significant challenge confronting the Nigerian economy. The Nigerian economy's inability to successfully meet its debt servicing requirements has exposed the country to a large debt payment burden.

There are various recent empirical studies that have tried to investigate the Effect of International Monetary Fund and World Bank on the Nigerian Economic Growth which have arrived at different results applying different methodologies; for instance, Rahman, e'tal. (2017), Uguru. (2017), Adofu and Abula. (2018), Adesola. (2019), and Ujuju and Oboro. (2020). Majority of the studies used Gross Domestic Products (GDP), Gross Domestic Products per, and Capita (GDP) per Capita as a proxy for economic growth. To the best of the researchers' knowledge, no research work use the focus and the control variables in a single study that this current study used; which are International Monetary Fund and World Bank as the main (focus) variables; and Inflation Rate as Control Variable. Also, no study used

Foreign Direct Investment (FDI) as a percentage of GDP, and Gross National Expenditure (GNE) as a percentage of GDP as proxies for economic growth. This is the gap in knowledge which this study seeks to address.

1.2 Research Questions

This study is to assess the effect of International Monetary Fund/World Bank on Economic growth in Nigeria. The study sought answers to the following research questions:

- i. To what extent International Monetary Fund/World Bank loans affect the Nigerian FDI as a percentage of GDP?
- ii. What are the effects of International Monetary Fund/World Bank loans on the Nigerian Gross National Expenditure as a percentage of GDP?

1.3 Objectives of the Study

The broad objective of this study is to assess the effect of International Monetary Fund/World Bank on the Nigerian Economic growth. However, the specific Objectives are to:

- i. Examine the extent International Monetary Fund/World Bank loan affects the Nigerian FDI as a percentage of GDP.
- ii. Assess the effects of International Monetary Fund/World Bank loan on the Nigerian Gross National Expenditure as a percentage of GDP.

1.4 Hypothesis

H₀₁: International Monetary Fund/World Bank loans given to Nigeria have no significant effect on FDI as a percentage of Nigeria's GDP.

H₀₂: International Monetary Fund/World Bank loans given to Nigeria have no significant effect on Gross National Expenditure as a percentage of Nigeria's GDP.

2. LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 International Monetary Fund and World Bank

The International Monetary Fund (IMF) and the World Bank were established in 1944, just after World War II, during the United Nations Monetary and Financial Conference in Breton Woods, Washington, which gave origin to the moniker "Breton Woods Institutions." These institutions were established in reaction to the economic turmoil that followed the Second World War, with the initial goal of facilitating Europe's reconstruction. Since the 1970s, the focus has been on the developing world, as debt crises and other economic developments have compelled these countries to seek assistance. However, in recent decades, the proclaimed purpose of the IMF and World Bank has been to alleviate poverty and stabilize the economic status of developing-world countries. This should be accomplished by arranging for capital inflows into labor-intensive markets, so stimulating growth through open-market reforms (Ogunmuyiwa, 2017).

2.1.2 Economic Growth

According to Nur, e'tal (2019), economic growth is often defined as a rise in GDP in order to differentiate growth from development. Even though these terms are commonly used interchangeably, they can nonetheless be distinguished. According

to Adofu and Abula (2018), economic growth is defined as an increase in a country's national output of goods and services or an increase in the amount of output of goods and services during a specified time period. Economic progress is commonly understood to be the rate at which the annual output of goods and services grows in real terms, but economic development is a less exact and more complex word that cannot be simply reduced to quantitative measurement in monetary terms alone. It entails a plethora of aspects pertaining to man's existence.

2.1.3 Foreign Direct Investment as a percentage of GDP

Foreign direct investment is defined as net inflows of investment to acquire a long-term management stake (10 percent or more of voting shares) in a company operating in an economy other than the investor's. It is the total of equity capital, earnings reinvestment, other long-term capital, and short-term capital as represented in the balance of payments. This statistic displays net inflows (new investment inflows less disinvestment) from foreign investors in the reporting economy and is split by GDP (Gana, 2019).

2.1.4 Gross National Expenditure as a percentage of GDP

According to Stephen and Obah (2019), GDP as a percentage of GDP is the sum of household final consumption expenditure (formerly private consumption), general government final consumption expenditure (formerly general government consumption), and gross capital formation (formerly gross domestic investment) divided by GDP.

2.2 Empirical Review

Panagiotis (2020) empirically investigated the nexus between public debt and the determinants of economic growth such as private and government consumptions, investment, trade openness, and population growth in Greece through the applications of unit root tests and auto-regressive distributed lag (ARDL) model. The unit root tests indicated mixed integration of order zero and order one among the variables. These results of the ARDL model revealed a long-run relationship. Trade openness had positive effects on FDI as a percentage of GDP, while government debt and population growth have a negative effect on growth (Gross Fixed Capital formation as a percentage of GDP). However, the study also addresses the break effects issue between government debt and economic growth. The results indicated that the nexus between debt and growth depends on debt breaks. The above study focused on the Greece economic, but consequently, this current study focuses on the Nigerian economic.

Alenjandro and Ifeana (2019) examined the impact of MIF loans on gross domestic product in 16 Latin American economies including Bolivia, Argentina, Chile, Brazil, Costa Rica, Colombia, Dominican Republic, Mexico, Honduras, Panama, Nicaragua, Peru, Paraguay, Venezuela and Uruguay for the period 1960-2015 using Two-Stage Least Squares (2-SLS) in the analysis. The variables

employed in the analysis include the initial level of GDP per capita, the growth rate of GDP per capita, gross government debt as a share of GDP, investment rate proxied as gross fixed capital formation as a share to GDP and population growth rate. The results indicated that debt has a positive impact on GDP growth but declines to close to zero beyond public debt-to-GDP ratios between 64% and 71% up to this threshold, additional debt has a stimulating impact on growth. The results of the above study could be spurious and unreliable, this is because the study failed to conduct stationarity test of the data used, but this study conducted stationarity and co-integration tests of the data used; thus, this will make the results of the present study to be more reliable. Besides, this study contributes to knowledge by providing more recent findings regarding the effect of IMF and World Bank loans on the Nigerian economic growth.

Nassir and Wani (2017) investigated the relationship between public debt and economic growth in Afghanistan for the period 2008-2012 using analysis of variance (ANOVA). The variables employed in the study include the gross domestic product (GDP), government stock, Advances from commercial banks and external debt. The result showed that government stock, Advances from commercial banks and external debt have negative and insignificant influence on the gross domestic product (GDP) in Afghanistan. Thus, the study recommended that the government should develop a framework for recording and monitoring all contingent liabilities and also formulate and implement a policy for the management of the contingent liabilities. More so, it recommended that the government should continue to implement wider economic reform policies that promote investment in treasury bonds and encourage institutional investors such as pension funds and insurance companies to invest in Treasury bonds. The results of the above study could be spurious and unreliable, this is because the study failed to conduct stationarity test of the data used, but this study intends to conduct stationarity and co-integration tests of the data to be used; thus, this will make the results of the present study to be more reliable.

Lucky and Godday (2017) empirically examined the nexus between the World Bank loans and the growth performance of the Nigerian economy for the period 1990-2015 using simple and multiple regression analyses. The variables used in the analysis include gross domestic product, domestic debt, external debt and total debt. The results of the simple regression total public debt have a positive and significant impact on Gross National Expenditure as a percentage of Nigeria's GDP. Similarly, the results of the multiple regression analysis revealed that whereas the external debt is negative and significant to economic growth in Nigeria. Therefore, the study recommended that Nigeria should pursue domestic policies as against its external debts counterpart. The results of the above study could be spurious and unreliable, this is because the study failed to conduct stationarity test of the data used, but this study conducted stationarity and co-integration tests of the data used; thus, this will make the results of the present

study to be more reliable. Besides, this study contributes to knowledge by providing more recent findings regarding the effect of IMF and World Bank loans on the Nigerian economic growth.

3. Theoretical Framework

3.1 Neo-Classical Growth Theory

This theory dates back to 1956, when Robert Solow proposed a formal model that proposed labor productivity as the fundamental determinant in growth (i.e. output per worker). For this concept, the role of technical transformation has become critical, even more so than capital accumulation. The model assumes that output (Y) is generated through the use of technology, labor, and physical capital. The model is written as $Y = f(A,K,L)$, where Y is the total output. A is the number based on the current state of technology, K is the quantitative measure of the size of the stock of manufactured capital and L the quantity of labour employed during that period of time K, A and L are the only factors of production explicitly included in the model. All factors are relative for the production of output, with the exponents in the equation indicating their relative contribution and productivity that increases as a result of technological change, in addition to changes in organization and practices.

3.2 Dependency Theory

The study is anchored on Vincent Ferraro's Dependency Theory (1950s). Dependency theory seeks to explain the current underdevelopment of many nations around the world by analysing patterns of inter-national relationships and suggesting that inequality among states is an inherent element of such connections.

According to this viewpoint, poverty cannot be fully understood unless the interactions between dominant "cores" or "center" industrialized countries and submissive "peripheral" developing countries are considered. The phrase "dependency" refers to one economy's sensitivity to and vulnerability to the policies of another. For instance, in an article titled "The Structure of Dependence," "We can grasp what is happening in the poor countries only when we perceive that they develop within the framework of a process of dependent production¹⁵⁶," writes Theotonio Dos Santos. People who approach adjustment from this perspective would perceive the necessity to change international relations rather than focused on correcting economic policy within a debtor country.

3. METHODOLOGY

Ex-post facto research design was adopted for this study, this means cause-effect research design and this is chosen because of the research-specific objectives. The target population of the study comprises of all the MIF and World Bank loans given to Nigeria, Inflation Rate, Nigerian FDI as a percentage of GDP and Gross National Expenditure as a percentage of GDP from 1986 to 2020. All the population was censored. The data used for this research is secondary data got from the annual

reports of the World Bank on Nigeria’s FDI, Gross National Expenditure, Gross Fixed Capital Formation as a percentage of their corresponding Gross Domestic Product and World Bank loans. The data is entirely appropriate and wholly adequate to draw conclusions and answer the question or solve the problem. Time series data was used in this study. Secondary data was used in this study, and data was drawn mainly from the Central Bank of Nigeria Statistical bulletin and the Debt Management Office. The method that was employed to analyze the behaviour of the data is the use of both descriptive and inferential statistics; the variables which used to determine the formulated are presented as follows:

Independent variables are IMF and World Bank Loans as the main (focused) variables and Inflation Rate as a Control Variable. And dependent variable is Nigerian Economic Growth, and it was proxied by Nigerian FDI as a percentage of GDP and Gross National Expenditure as a percentage of GDP.

This study modeled according to the studies of Sasmal and Sasmal (2018) but used different variables. The relationship between the two variables will be:

Model 1: IMF/World Bank Loans and Nigerian FDI as a percentage of GDP

$$LFDI/GDP = L\beta_0 + L\beta_1 LWBL + L\beta_2 LIFLR + \varepsilon_1 \text{ ----- (1)}$$

Where:

LFDI/GDP = Log of FDI as a percentage of Gross Domestic Product

LWBL = Log of MFI/World Bank Loans

LIFLR = Log of Nigerian Interest Rate

β_0 is the intercept of the regression model of Nigerian Log of FDI as a percentage of GDP

β_1 and β_2 are rates of change of the IMF/World Bank Loans variables with respect to Nigerian Log of FDI as a percentage of GDP.

ε_1 is the error term associated with the model of the IMF/World Bank Loans variables with respect to Nigerian Log of FDI as a percentage of GDP.

Re-writing equation (1) in general Error Correction Model (ECM) form to capture the dynamic relationship among the variables in the short and long-run, the model becomes:

$$\begin{aligned} \Delta LFDI/GDP = & \alpha_0 + \sum_{g=1}^i \alpha_{1g} \Delta LFDI/GDP_{t-g} + \sum_{h=1}^m \alpha_{2h} \Delta LWBL_{t-h} \\ & + \sum_{i=1}^n \alpha_{3i} \Delta LIFLR_{t-i} + ECM_{t-1} + \varepsilon_t \text{ ---- (1.1)} \end{aligned}$$

Model 2: IMF/World Bank Loans and Gross National Expenditure as a percentage of Nigeria’s GDP.

$$LGNE/GDP = L\beta_0 + L\beta_1 LWBL + L\beta_2 LIFLR + \varepsilon_2 \text{ ----- (2)}$$

Where:

LGNE/GDP = Log of Gross National Expenditure as a percentage of Gross Domestic Product

LWBL = Log of MFI/World Bank Loans

LIFLR = Log of Nigerian Interest Rate

β_0 is the intercept of the regression model of Nigerian Log of Gross National Expenditure as a percentage of GDP

β_1 and β_2 are rates of change of the IMF/World Bank Loans variables with respect to Nigerian Log of Gross National Expenditure as a percentage of GDP.

ε_1 is the error term associated with the model of the IMF/World Bank Loans variables with respect to Nigerian Log of Gross National Expenditure as a percentage of GDP.

Re-writing equation (2) in general Error Correction Model (ECM) form to capture the dynamic relationship among the variables in the short and long-run, the model becomes:

$$\Delta LGNE/GDP = \alpha_0 + \sum_{g=1}^l \alpha_{1g} \Delta LGNE/GDP_{t-g} + \sum_{h=1}^m \alpha_{2h} \Delta LWBL_{t-h} + \sum_{i=1}^n \alpha_{3i} \Delta LIFLR_{t-i} + ECM_{t-1} + \varepsilon_t \quad \text{--- (2.1)}$$

4. RESULT AND DISCUSSION

Descriptive Analysis of Variables

Table 1: Descriptive Analysis of Variables

	FDI GDP	GNE GDP	IFLR	WBL
Mean	1.774061	94.36534	20.19675	1.38E+08
Median	1.625012	94.40533	13.00000	1.03E+08
Maximum	5.790847	103.0013	72.80000	5.24E+08
Minimum	0.257422	76.94907	5.400000	0.000000
Std. Dev.	1.218836	5.890853	17.17823	1.49E+08
Skewness	1.345704	-0.791443	1.832025	0.777862
Kurtosis	5.088413	3.609072	5.268674	2.609657
Jarque-Bera	19.34191	4.794158	30.95358	4.287746
Probability	0.000063	0.090983	0.000000	0.117200
Sum	70.96243	3774.614	807.8700	5.53E+09
Sum Sq. Dev.	57.93692	1353.384	11508.58	8.64E+17
Observations	40	40	40	40

Source: Output from E-views 10 (2021)

The summary of descriptive statistics of relevant variables of study is as reported in Table 1 above. As may be observed from the table, the mean, median, standard deviation, as well as the skewness and kurtosis measures of our variables of interest, are given. The mean values of FDI as a percentage of Gross Domestic Product (FDI/GDP), Gross National Expenditure as a percentage of Gross Domestic Product ((GNE/GDP)), Inflation Rate (IFLR) and MFI/World Bank Loans (WBL) are 1.774061, 94.36534, 20.19675, and 1.38E+08 respectively. Their respective standard deviations are 1.218836, 5.890853, 17.17823, and 1.49E+08.

Also, the minimum values for FDI/GDP, GNE/GDP, IFLR, and WBL are 0.257422, 76.94907, 5.400000, and 0.000000 respectively, while their maximum values are 5.790847, 103.0013, 72.80000, and 5.24E+08 respectively. The Jarque-Bera test of normality shows that the error term in our specified equation is normally distributed. This is evidenced by the respective insignificant Jarque-Bera statistics of the relevant variables.

Unit Root Test

Table 2: Summary of Augmented Dickey-Fuller Test

Variables	ADF P-value @ 5% Level	ADF P-value @ 1st Digfference	Order of Integration
LFDI/GDP	0.0413	-	I(0)
LGNE/GDP	0.0016	-	I(0)
LWBL	0.6458	0.0000	I(1)
LIFLR	0.0152	-	I(0)

Note: * represents 1% significant level; ** represents 5% significant level and *** represents 10% significant level. Calculated at trend and lag lengths selected automatically using the Schwarz Info Criterion (SIC).

Source: *Output from E-views 10 (2021)*

Table 4.4 shows the Augmented Dickey-Fuller stationarity test results of the four economic variables used in this study. From the results, LFDI/GDP, LGNE/GDP, and LIFLR were stationary at a first difference, while LWBL was stationary at first difference. This implies that the economic variables are fit and suitable to be used for the analysis. However, the analysis of the unit root test results are shown in appendix III.

Based on the above table, the outcome of our results revealed that the series are integrated of different orders. Therefore, in this case we cannot use Johansen Co-integration Test; we can only use the Bound Test of Co-integration proposed by Pesaran, Shin, and Smith in 2001.

Co-integrating Hypothesis:

H₀: There is no Co-integrating Equation

H₁: There are Co-integrating Equations

Decision Criteria:

Null Hypothesis is rejected, if the F-value is greater than 5% Critical Value for the upper bound series; otherwise, we fail to reject the Null, if the F-value is less than 5% Critical Value for the upper bound series.

Table 3: Co-integration Results

ARDL Long Run Form and Bounds Test
 Dependent Variable: D(FDI_GDP)
 Selected Model: ARDL(1, 0, 0, 0)
 Case 3: Unrestricted Constant and No Trend
 Date: 11/07/21 Time: 07:54
 Sample: 1981 2020
 Included observations: 39

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.951341	2.728773	1.081563	0.2871
FDI_GDP(-1)*	-0.648267	0.141903	-4.568384	0.0001
GNE_GDP**	-0.023633	0.028168	-0.839027	0.4073
WBL**	-9.56E-10	1.23E-09	-0.776741	0.4427
IFLR**	0.029882	0.010922	2.736050	0.0098

* p-value incompatible with t-Bounds distribution.
 ** Variable interpreted as $Z = Z(-1) + D(Z)$.

Levels Equation Case 3: Unrestricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GNE_GDP	-0.036456	0.042448	-0.858843	0.3964
WBL	-1.47E-09	1.85E-09	-0.798130	0.4303
IFLR	0.046095	0.016635	2.770975	0.0090

$$EC = FDI_GDP - (-0.0365 * GNE_GDP - 0.0000 * WBL + 0.0461 * IFLR)$$

F-Bounds Test				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	5.953200	10%	2.72	3.77
K	3	5%	3.23	4.35
		2.5%	3.69	4.89
		Asymptotic: n=1000		

		1%	4.29	5.61
			Finite Sample: n=40	
Actual Sample Size	39	10%	2.933	4.02
		5%	3.548	4.803
		1%	5.018	6.61
			Finite Sample: n=35	
		10%	2.958	4.1
		5%	3.615	4.913
		1%	5.198	6.845

t-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
t-statistic	-4.568384	10%	-2.57	-3.46
		5%	-2.86	-3.78
		2.5%	-3.13	-4.05
		1%	-3.43	-4.37

Source: *Researcher Computations (2021) employing E-Views*

The above results revealed that F-Value of 5.953200 is greater than the I(1) bound (Critical Value for the upper bound) of 4.35 at 5% level of significance. Similarly, the absolute T- statistics value of 4.568384 is greater than the I(1) bound (absolute Critical Value for the upper bound) of 3.78 at 5% level of significance. Therefore, it indicates that the null hypothesis of no long relationship is rejected and accepts the alternate hypothesis of there is long run relationship among the variables. Thus, we estimate the long-run model and extract the residual via the use Ordinary Least Square and Error Correction Model.

Table 4: Ordinary Least Square Test and Error Correction Model

Dependent Variable: D(LFDI_GDP)

Method: Least Squares

Date: 11/06/21 Time: 14:55

Sample (adjusted): 1983 2020

Included observations: 38 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.068006	0.079226	0.858379	0.3969
D(LFDI_GDP(-1))	-0.578945	0.172368	-3.358765	0.0020

D(LWBL(-1))	0.019957	0.022437	0.889466	0.0382
D(LIFLR(-1))	0.115208	0.144055	0.799754	0.0426
ECM(-1)	-0.224617	0.127396	-1.763143	0.0371
R-squared	0.725820	Mean dependent var	0.053850	
Adjusted R-squared	0.736223	S.D. dependent var	0.607220	
S.E. of regression	0.487207	Akaike info criterion	1.521825	
Sum squared resid	7.833238	Schwarz criterion	1.737297	
Log likelihood	-23.91467	Hannan-Quinn criter.	1.598488	
F-statistic	6.118323	Durbin-Watson stat	1.796077	
Prob(F-statistic)	0.000849			

Source: *Researcher Computations (2021) employing E-Views*

From the long-run regression results shown in Table 4, the following interpretation can be inferred; a unit increase in MIF/World Bank Loan on the average holding other independent variables constant will lead to a 0.019957 unit increase in Annual Log of FDI as a percentage of Gross Domestic Product. Also, a unit increase in Inflation Rate on the average holding other independent variables constant will lead to a 0.115208 unit increase in Annual Gross National Expenditure as a percentage of Gross Domestic Product. However, based on the probability value, the MIF/World Bank Loan and Inflation Rate in Nigeria were statistically significant in explaining the variation in the Nigerian FDI as a percentage of Gross Domestic Product. Besides, the ECM parameter is negative (-) and significant which is -0.224617 and the p-value is 0.0371; this shows that 22 percent disequilibrium in the previous period is being corrected to restore equilibrium in the current period.

Moreover, the table above shows the relationship between

IMF/World Bank Loans and Nigerian FDI as a percentage of GDP. The R^2 value is 0.73; it indicates the prediction capability of the independent variables. This indicates that 73% changes in the Nigerian FDI as a percentage of GDP are explained by the changes in the IMF/World Bank Loans. Also, that only about 27% other factors that could bring about changes in the model were not included. Besides, the value of 74% of the Adjusted R^2 shows a strong relationship between the IMF/World Bank Loans and the Nigerian FDI as a percentage of GDP.

Furthermore, it has been established that the H_{O1} which stated that International Monetary Fund/World Bank loans given to Nigeria have no significant effect on FDI as a percentage of Nigeria's GDP is **rejected**; this is because the Prob(F-statistic) of 0.000849 is less than 0.05. Therefore, it can be concluded that International Monetary Fund/World Bank loans given to Nigeria have significant effect on FDI as a percentage of Nigeria's GDP.

Post Diagnostic Test

In order to make the results of table 4 more reliable and valid, we check the auto-seial correlation of the model.

Table 5: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.341023	Prob. F(2,31)	0.7137
Obs*R-squared	0.818057	Prob. Chi-Square(2)	0.6643

Source: *Researcher Computations (2021) employing E-Views*

The above table shows that all observed R-square and the corresponding P-Values is 0.6643, greater than 0.05; therefore, Ho is accepted and concludes that the model is free from the problem of serial autocorrelation.

Table 6: Ordinary Least Square Test and Error Correction Model

Dependent Variable: D(LGNE_GDP)

Method: Least Squares

Date: 11/06/21 Time: 15:22

Sample (adjusted): 1983 2020

Included observations: 38 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001841	0.010065	-0.182914	0.8560
D(LGNE_GDP(-1))	-0.100618	0.170539	-0.589997	0.5592
D(LWBL(-1))	0.003502	0.002837	1.234415	0.0258
D(LIFLR(-1))	0.012882	0.015425	0.835105	0.0297
ECM(-1)	-0.642438	0.203027	-3.164307	0.0033
R-squared	0.889525	Mean dependent var	6.28E-05	
Adjusted R-squared	0.884528	S.D. dependent var	0.074823	
S.E. of regression	0.061903	Akaike info criterion	-2.604409	
Sum squared resid	0.126456	Schwarz criterion	-2.388937	
Log likelihood	54.48376	Hannan-Quinn criter.	-2.527745	
F-statistic	5.264070	Durbin-Watson stat	1.984316	
Prob(F-statistic)	0.002159			

Source: *Researcher Computations (2021) employing E-Views*

From the long-run regression results shown in Table 5, the following interpretation can be inferred; a unit increase in MIF/World Bank Loan on the average holding other independent variables constant will lead to a 0.003502 unit increase in Annual Log of Gross National Expenditure as a percentage of Gross Domestic Product. Also, a unit increase in Inflation Rate on the average holding other independent variables constant will lead to a 0.115208 unit increase in Annual Gross National Expenditure as a percentage of of Gross Domestic Product. However, based on the probability value, the MIF/World Bank Loan and Inflation Rate in Nigeria were statistically significant in explaining the variation in the Nigerian Gross National Expenditure as a percentage of of Gross Domestic Product. Besides, the ECM parameter is negative (-) and significant which is -0.642438 and the p-value is 0.0033; this shows that 64 percent disequilibrium in the previous period is being corrected to restore equilibrium in the current period.

Moreover, the table above shows the relationship between IMF/World Bank Loans and Nigerian Gross National Expenditure as a percentage of of Gross Domestic

Product. The R^2 value is 0.89; it indicates the prediction capability of the independent variables. This indicates that 89% changes in the Nigerian Gross National Expenditure as a percentage of GDP are explained by the changes in the IMF/World Bank Loans. Also, that only about 11% other factors that could bring about changes in the model were not included. Besides, the value of 88% of the Adjusted R^2 shows a strong relationship between the IMF/World Bank Loans and the Nigerian Gross National Expenditure as a percentage of GDP.

Furthermore, it has been established that the H_0 which stated that International Monetary Fund/World Bank loans given to Nigeria have no significant effect on the Nigerian Gross National Expenditure as a percentage of Nigeria's GDP is **rejected**; this is because the Prob(F-statistic) of 0.002159 is less than 0.05. Therefore, it can be concluded that International Monetary Fund/World Bank loans given to Nigeria have significant effect on Nigerian Gross National Expenditure as a percentage of Nigeria's GDP.

Post Diagnostic Test

In order to make the results of table 4 more reliable and valid, we check the auto-seial correlation of the model.

Table 6: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.197987	Prob. F(2,31)	0.8214
Obs*R-squared	0.479265	Prob. Chi-Square(2)	0.7869

Source: *Researchers Computations (2021) employing E-Views*

The above table shows that all observed R-square and the corresponding P-Values is 0.7869, greater than 0.05; therefore, H_0 is accepted and concludes that the model is free from the problem of serial autocorrelation.

Discussion of Findings

The study revealed that International Monetary Fund /World Bank Loans have significant effect on the Nigerian Economic Growth. Besides, the study established that International Monetary Fund/World Bank loans given to Nigeria have significant effect on FDI as a percentage of Nigeria's GDP. The result is consistent with the findings of Panagiotis (2020) who empirically investigated the nexus between public debt and the determinants of economic growth such as private and government consumptions, investment, trade openness and population growth in Greece. Furthermore, the study revealed that International Monetary Fund/World Bank loans given to Nigeria have significant effect on Nigerian Gross National Expenditure as a percentage of Nigeria's GDP. This findings are in agreement with the findings of Lucky and Godday (2017) who empirically examined the nexus between the World Bank loans and the growth performance of the Nigerian economy for the period 1990-2015.

5. CONCLUSION AND RECOMMENDATION

The econometric evidence suggests that MIF/ World Bank Loans affects FDI and GNE as percentages of GDP because these variables influence commerce which have effect on economic growth but the magnitude and direction of which depends on the circumstances in which they operate. To get guidance on which policies to pursue, one has to combine traditional econometric analysis with economic theory and qualitative analysis of historical events. Based on the economic theory, it is stated that the effect of the independent variables on these macro-economic measures of growth in the economy depends on the consistency or otherwise of monetary and fiscal policies pursuing them. In this instance economic goal congruence is the focal point between the overall efficiency in utilizing these loans so the greater the efficiency in utilizing these resources, the greater the impact on the economic variables hence economic growth.

In view of the importance of economic growth and in order to ensure effective implementation coverage and success of IMF/World Bank loan, the study draws on the following recommendations based on the findings of the study.

- i. Based on the conclusion reached, it is recommended that if the economy of Nigeria wants to experience real growth, then IMF/world bank loans should be appropriated to areas of Foreign Direct Investment (GDI) and need such as infrastructural development and education. Another advice is that Nigerians banking industry stakeholders and other investors should be encouraged to place priorities in areas that propel economic growth while keeping the local currency stable. This means the real sector such as the manufacturing, agricultural and small scale business sectors should be given priority funding.
- ii. IMF/world bank loans should be appropriated to areas of Nigerian Gross National Expenditure. In addition these loans are better prioritized in locations where the comparative advantage is in the hands of a segment which can wield it most effectively. Nigeria being a diverse society with the largest (and still expanding) population in Africa has potentials in Agriculture, Commerce and Manufacturing etc. The Nigerian economy has been slow due to the recession of the period. However, policies should be put in place to maintain a market based economy where demand and supply regulate the prices of goods and services and the growth of the economy may not be expected for a long time until the system is completely adjusted to accommodate the change.

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