

Impact of Food Importation in Nigeria Economy 1980-2016

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ABSTRACT

The study, empirically investigates the impact of Food Import on the economic growth in Nigeria between 1980 and 2016. Secondary method of data collection was used to generate data for this study and the sources of the data included annual Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics. The study is a simple regression adopting OLS regression techniques to analyze the data. The study revealed that there exist negative relationship between Food Import and the economic growth. The study found that Food Import has no significant impact on economic growth in Nigeria. There is unidirectional causality relationship between economic growth and unemployment. The study therefore recommends that: Nigerian government needs to lay more emphasis on diversification of the economy with the objective of increasing the productivity level of Nigeria.

Keywords: Impact, Food, Importation, Nigeria and Economy

INTRODUCTION

Food remains the most critical need for human survival. FAO's motto "*Fiat panis*" literally meaning "Food comes first" supports this assertion [1,2,3,4,5]. Nations, therefore, strive to meet the food needs of their citizens in a food security sense by promoting food production within borders and complementing as necessary with importation across borders [6,7,8,9]. The two components have definite planning options and outcomes. When a nation proactively plans its food security goals, the preponderance of the food consumed will be locally produced by her farmers [10,11]. As such, the complementary food import will be minimal. A case for import is found in the incomplete nature of the ecological wealth of each nation which implies that no nation has a

Statement of the Problem

Over the years, Nigeria has been known to be an importing country and has been experiencing fluctuations in her exports earnings. In most cases, this without doubt cannot bring about industrialization and economic growth and development. The reason for this being that importation of huge quantities of customizable goods and services will only lead to temporal satisfaction of customer needs and wants and still result to huge outflow of funds. Export earnings on the other hand have experienced a lot

comprehensive or total comparative advantage for the production of all kinds of food consumed within her borders [12]. However, depending more on imports with regard to food consumed by the inhabitants is not only wasteful but detrimental to the overall growth and future of the agricultural sector of the nation's economy [13,14,15]. The situation is worse when food commodities which a nation has comparative advantage for their production are being imported. Moreover, food importation (and importation in general) in a nation with high comparative corruption perception index is more deleterious. The bills paid could be diverted into wrong accounts with no commodity supplied at the end of it all [16].

of fluctuation because of fluctuation because of over dependence on oil sector. Nigeria has not hit the targeted diversification plan. The importation of international trade in the development process has been of interest to development economists and policy makers alike. Imports and exports are key parameters of international trade and the import of capital goods in particular is vital to economic growth. This is so because imported capital goods economic expansion. Economic reform is expected

to affect imports as part of the strategy to restore external balance. However, unless policy makers know that the major components of important are and how they are determined, such a policy decision can be harmful to investment and output if domestic production relies on imports. In Nigeria, some people are in favors of protectionist and highly regulated economy and have even criticized the previous Nigeria government, for signing the treaty of the World.

Trade Organization (W.T.O) claiming that Nigeria was not adequately represented in the negotiations and should push for a fairer deal. As regards to this statement some people, particularly economists pushed for the implementation of the

Structural Adjustment (S.A.P) in 1986 which brought about deregulation of formerly regulated areas of the economy, so that the country could reap the benefits of economic openness. The main thrust of the research is to take an objective view regarding the controversy of the role international trade in the progress of a country in terms of economic growth of Nigeria. It has been clouded by the dissenting voice in the 21st century that trade could be negative in terms of acting as catalyst of economic growth and development being a retrogressive force, the journey to economic independence. But ironically, past experience has proven the progress with regards to growth and development.

Research Question

1. What is the impact of wheat importation impacted on economic growth in Nigeria?

2. What is the impact of grain importation on economic growth in Nigeria?
3. To what extent has food importation impacted on economic growth in Nigeria?

Objective of the Study

Food import has, by and large, affected the growth of Nigerian economy. But there have been large dissenting voice in the 21st century, claiming that it have only perpetuates the under - development of poor countries due to the fact that there disproportionate shares of gains from trade that accrues to

industrialized country. This research work focuses on the following objectives:

1. To examine the impact of grain importation on economic growth, in Nigeria.
2. To estimate the impact of wheat importation on economic in Nigeria.
3. To evaluate the relationship between .various food import on Nigeria economic growth.

Hypothesis of the Study

For the purpose of this research study, the following research hypothesis will be tested for verification based on the objectives.

1) Ho : Importation of wheat has no significant impact on economic growth in Nigeria.

2) Ho: Importation of grain has no significant impact on economic growth in Nigeria.

3) H₁: Food importation has no significant impact on economic growth in Nigeria

Significance of Study

A study of this nature will go a long way which will be benefits some classes of persons which will be summarized as follows:-

1. This research study will stand out to enlighten the general populace on the relationship which exists between international trade (Imports and Exports) and the economic growth in Nigeria for the years under an analysis.

2. The federal government will find this study significantly useful as it will point out the position of international trade in Nigeria and given way for some policy executives.

3. This study will be of high relevance for the education sector as it will serve as a stock of knowledge for student who would want to carry out an analysis on the areas under study.

4. The study would enlighten the knowledge of any interested Nigerians. In summary, the concept of international trade and its impact on economic growth

remains a crucial important analysis because they are variable that significantly affect the general populace.

Scope of the Study

This research study is basically within the Nigeria economy and it covers the

period of 35years starting from 1980 to 2016.

METHODOLOGY

Research Design

Quantitative research design is adopted for this study. Quantitative research is the systematical empirical investigation of observable phenomena through statistical mathematical or computational techniques. It is usually associated with model of scientific research that moves from a theory to operationalization into observation. According to [8] quantitative research places emphasis on statistical data and the use of these data to test

hypothesis. The objective of quantitative research is to develop and mathematical model, theories and hypothesis pertaining to the, research. In this kind of research, data are collected and analyze with the help of statistical tool employed is E-views econometrics software, using ordinary least square techniques to give quantitative analyses of the data collected.

Theoretical Framework

Comparative cost advantage of David Ricardo serves as the theoretical base of this study. The theory assumed the existence of two countries, two commodities and one factor of production. To him, a country should export the commodities whose comparative advantage is lower and import the commodity whose comparative

cost is higher. The theory also assumed that the level of technology is fixed for both nations and that trade is balanced and rolls out the flow of money between nations, [3]. However, the theory is based on the labour theory of values which states that the price of the value of a commodity is equal to the labour time going into the production process.

Statistical Test of Significance

These are determined by the statistical theory and aimed at evaluating the statistical reliability of the estimates of the parameters of the model, the most

widely used statistical criteria is the square of correlation coefficient (coefficient of determination R^2), t-Test and f-Test of significance.

PRESENTATION AND ANALYSIS OF RESULTS

In this section, we will present the regression results and subject them to various economic, statistical and econometric tests. And; the hypothesis posed earlier in this study will be examined based on these empirical results.

The Empirical Results: Based on our regression numerical estimate, standard econometric tests were carried out in order to avoid the generation of spurious (i.e. Non-meaningful] regression results.

Stationarity (unit root) Test Result

Stationarity test is used to examine the validity of our time series data, according to classical linear regression model assumption; a valid time series data should have a constant mean, variance and auto-covariance at various lags, i.e. They are time invariant.

individual variable. The test was done based on the following:

H_0 : variable contains unit root and hence is non-stationary.

H_1 : variable does not contain unit root and hence is stationary.

The augmented dickey-fuller (ADF) was used to test for Stationarity in the

The results from the augmented dickey fuller test for unit root are summarized in table 1:

Table 1:Result of Unit Root Test
Augmented Dickey Fuller

S/No	Variables	ADF Values	5% Critical Values	Order of Integration	Test Result
1	RGDP	-5.631885	-3.544284	1(1]	Stationary at 1 st difference
2	FIM	-5.374024	-3.544284	1(0)	Stationary at Level Form

From the tabular illustration, the food import (FIM) is stationary at level form and economic growth (RGDP) is stationary at first difference, the variables are stationary at level form and first difference respectively. That is, the variables are integrated at order; 1(0) and 1(1) respectively. Not having a stationarity time series data indicates not having a short run relationship among the individual time series data, this result is

expected since most macro- economic time series data are known to exhibit such behavior. Since economic growth (RGDP) is non-stationary at level form, there is need to conduct a cointegration test. The essence is to show that economic growth [RGDP) is non-stationary, the variable may have a long term relationship that is, the variable may be cointegrated and will not produce a spurious result.

Cointegration Test Result

The cointegration test result is summarized as follows

Table 2: Cointegration Test Result

Null Hypothesis: ECT has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.
Augmented Dickey-Fuller test statistic	-5.378765	0.0006
Test critical values: 1% level	-4.252879	
5% level	-3.548490	
10% level	-3.207094	

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(ECT)

Method: Least Squares

Date: 09/06/18 Time: 10:34

Sample (adjusted): 1983 2016

Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECT(-1)	-0.973085	0.180912	-5.378765	0.0000
C	2370.936	73053.97	0.032455	0.9743
@TREND("1980")	-86.91085	3347.955	-0.025959	0.9795
R-squared	0.482985	Mean dependent var		4258.376
Adjusted R-squared	0.449629	S.D. dependent var		257992.7
S.E. of regression	191397.0	Akaike info criterion		27.24618
Sum squared resid	1.14E+12	Schwarz criterion		27.38086
Log likelihood	-460.1851	Hannan-Quinn criter.		27.2921 1
F-statistic	14.47978	Durbin-Watson stat		1.997099
Prob(F-statistic)	0.000036			

From the result above, the ADF test statistics (-5.378765) is greater than the 5% critical value (-3.548490) in absolute terms. This implies that the residuals are Error Correction Mechanism Result and interpretation

stationary (i.e. the variables are cointegrated or that the linear influence of the independent variables cancels out.

Table 3: ECM Test Result

Dependent Variable: D(RGDP)

Method: Least Squares

Date: 09/06/18 Time: 09:53

Sample (adjusted): 1983 2016

Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1726.275	308.4808	5.596053	0.0000
D(FIM)	-0.000525	0.001490	-0.352431	0.7269
ECT(-1)	-0.001705	0.001678	-1.016320	0.3173
R-squared	0.032253	Mean dependent var		1763.122
Adjusted R-squared	0.030182	S.D. dependent var		1631.946
S.E. of regression	1656.391	Akaike info criterion		17.74677
Sum squared resid	85052601	Schwarz criterion		17.88145
Log likelihood	-298.6950	Hannan-Quinn criter.		17.79270
F-statistic	0,516580	Durbin-Watson stat		1.425138
Prob(F-statistic)	0,601602			

From the test result above, the magnitude of the short run disparity is -0.001705x100= 0.001705% that is to say the degree of the short run dynamics is 0.001705%. And this shows a very low

speed of adjustment to the equilibrium after a shock.

Result of Original Model

Table 4: Regression RESULT

Dependent Variable: D(RGDP)

Method: Least Squares

Date: 09/06/18 Time: 09:55

Sample (adjusted): 1981 2016

Included observations: 36 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1617.015	315.3826	5.127156	0.0000
D(FIM)	-0.000219	0.001473	-0.148488	0.8828
R-squared	0.030648	Mean dependent var		1633.988
Adjusted R-squared	0.028745	S.D. dependent var		1738.829
S.E. of regression	1 763.643	Akaike info criterion		17.84210
Sum squared resid	1.06E+08	Schwarz criterion		17.93008
Log likelihood	-319.1579	Hannan-Quinn criter.		17.87281
F- statistic	0.422049	Durbin-Watson stat		1.661120
Prob(F-statistic)	0.882835			

The regression result above, the variables under consideration are economic growth (dependent variable) and food import (FIM) from the result the estimated $RGDP = 1617.015 - 0.000219FIM$
 $S.E = (315.3826) + (0.001473)$
 $T^* = 5.127156 - 0.148488$
 $R^2 = 0.030648$
 Adjusted $R^2 = 0.028745$
 $= 0.422049$
 Durbin-Watson stats = 1.661120

coefficient value of b_0 and b_1 , are 1617.015 and -0.000219 respectively. The regression result are presented as follows:

Table 5: Result of Apriori Test

Variable	Pre-Test Sign	Post-Test Sign	Test Result
FIM	-VE	-VE	CWES

CWES: Conform With Expected.

Evaluation of Regression Results

Evaluation Based on Economic Criterion

This subsection is concerned with evaluating the regression results based on apriori expectations. The signs and magnitude of each variable coefficient is evaluated against theoretical expectations. The signs of food import (FIM) coefficient from the estimated model is in line with apriori expectations. Food import (FIM) has a negative relationship with economic growth (RGDP). The constant term is estimated at

1617.015 which means that the model passes through the point 1617.015 mechanically if the independent variables is zero, RGDP would be 1617.015 [6]. The estimated coefficient for food import (FIM) is -0.000219, this implies that if we hold all other variables affecting economic growth constant, a unit increase in food import (FIM) will lead to a -0.000219 decrease in economic growth on the average.

Evaluation Based On Statistical Criterion
Interpretation of R² Result

This subsection applies the R², the t-test and the f-test to determine the statistical reliability of the estimated parameters. These tests are performed as follows; The coefficient of determination R² from the regression result, the R² is given as

0.030648 this implies that 3,0648% of the variation in economic growth is being explained by the variation in food import (FIM).

t-Test Result and Interpretation

The result of the t-test of significance is shown in table 6 below: The result of the t-test is presented below and evaluated Table 6: Result oft-Test of Significance

based on the critical value [2,030] and the value of calculated t-statistics for each variable.

Variables	t- computed (t _{cal})	t-tabulated (t _{a/2})	Test Result
Constant	5.127156	2.030	SS
FIM	-0.148488	2.030	SI

SS=Statistically Significant, SI=Statistically Insignificant From the t- test result above,For FIM,t_{cal}>tc_{cal}, therefore we accept

the null hypothesis and reject the alternative hypothesis.

Result and interpretation of f-Test of Significance
Table 7: Result oft-Test of Significance

Computed f-ratio value	Critical f-ratio value	Test Result
0.422049	3.32	SI

SI= Statistically Insignificant

The result shows that since f_{cal}>f_{crit}, we accept the null hypothesis and conclude

that the variable (FIMJ is insignificant on the entire regression plane.

Evaluation Based on Econometric Criterion

In this subsection, the following econometric tests are used to evaluate the

result obtained from our model and granger causality.

Result and Interpretation of Autocorrelation Test

Using the durbin-watson statistics, the region of no autocorrelation (positive or negative] is given as follows
du < d* < (4-du)

du= 1.580

d*= 1.661120

(4-du)= 4-1.580=2.42

By substitution, the region becomes:

1.58 > 1.661120 < 2.42

The result shows that there is the presence of autocorrelation problem in the model as the computed Durbin Watson statistics did not fall within the zero autocorrelation regions. Thus; there is presence of autocorrelation, and the

remedial measure to this is the use of the first difference equation, but the researcher will not go into this since this work is not for policy prescription.

Granger Causality Test: Result and Interpretation

The essence of causality analysis, using the granger causality test; is to actually ascertain whether a causal relationship exists between two variables of interest.

Table 8: Result of Causality Test

Pairwise Granger Causality Tests

Date: 09/06/18 Time: 09:56

Sample: 19802016

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
FIM does not Granger Cause RGDP	35	8.84580	0.0010
RGDP does not Granger Cause FIM		0.31619	0.7313

Evaluating the result in table above based on the decision rule, we concludes that food import (FIM) granger causes

economic growth (RGDP] but RGDP does not granger cause food import [FIM) (uni directional causality).

Evaluation of Research Hypotheses

From the t-test result in the table above, and based on our decision rule, we accept the null hypothesis (Ho) on food import (FIM) and reject alternative hypothesis (Hi).

Therefore, we conclude that, food import (FIM) has insignificant impact on the economic growth (RGDP) in Nigeria.

Implication of the Results

The result of this study indicates that food import decreases economic growth in Nigeria. That is, food import has a negative relationship on the economic growth in Nigeria. This is consistent with our a priori expectation since food import reduces the productive capacity of a nation by making them over dependant on other countries goods for consumption; which reduces economic growth and development in our nation. The research results also indicate that food import is statistically insignificant in determining economic growth in Nigeria

and this is because the Nigerian government normally allocate revenue to agricultural sectors for investment projects but due to power corrupt people; those who are in charge misuse the fund; which made them not to improve and expand in their managerial, labour skills and their agricultural areas; there by reducing their demand for foreign product. The result further indicates that a uni-directional causality coming from food import and economic growth; exists between food import and economic growth.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS.

Summary of findings

The results from this study indicate that food has an insignificant and negative impact on economic growth in Nigeria. This implies that, the higher the food import, the pose danger the Nigeria's

economy will be. The results further indicate that a unidirectional causality exists between food import and economic growth.

CONCLUSION

In this study we did an analysis of the impact of food import on the Nigerian economic growth over the years (1980-2016). Based on the findings of this research work, we conclude that for the

period under review, the food import has insignificant and negative influenced (with unidirectional causality) on economic growth in Nigeria.

RECOMMENDATIONS

Based on the findings of this research, the following policy prescriptions are made for long term and sustainable economic

growth in, Nigeria. From the foregoing we therefore recommend as follows:

- 1 .The government and Nigerians should look inwards to grow and develop organic

food, which helps the people to remain healthy and sound, and the health challenges most of these imported foods do; like GMOs, frozen meats because of the use of the chemicals and preservatives are bad. The longtime of eating all these things would lead to super bacteria that anti-biotics can tackle,

2. Government policies should focus on the enhancement of the internal economy, especially the stability of the economy to attract foreign direct investments that will help to invest in our agricultural sector side to increase our output.

2. The government should ensure that food import is restricted in our Nigeria economy in order to enlarge the market size of the country and improve in the nations income.

3. Food importation should be discouraged because we are servicing other people's economy, jobs and businesses we should have in the country to employ more people that would boost the economy

4. Improvement in the investment climate for existing domestic and foreign investors through infrastructure development; the availability of power, and changes in regulatory framework.

5. Effective impact assessment and regulation of microeconomic and local condition, through monitoring of benchmarks and business practice, voluntary guidelines, and transfer of environmentally sound technology.

REFERENCES

1. Adamsmith, (1776). An inquiry in to the wealth of the nation. Washington DC press. United nation.
2. Africa Development Bank. Africa Development Bank and Nigeria:Leveraging partnerships for economic transformation and inclusive growth. 2014;pp.1-64.
3. Adesoji, I.M and Sotubo ,C.I. (2013) Food Security in Nigeria," challenges and solution" A paper presented at the Nigeriann Economic Society 2013 in full Annual Conference Ibadan.
4. Ademopa, T.I.(1984). The Impact of Food import on Nigerian Economy, problem and polices.
5. Agbo, Z. H .(2010). Impact of Agricultural Import on Economic growth in Nigeria.NES Journal 1984, In Yalume 1.00.1 March.
6. Aminu, T.G and Anono, F. K (2012). Effect of Exchange Rate Movements on Agricultural, Diverse path of Economic Development. Uni-ben. Press Nigeria.
7. Aneke, S.H.(2001). Food Import and Agricultural Output, change in climate in tropical Africa
8. Central Bank of Nigeria (CBN) Statistical Bulletin, (2016) Edition.
9. David Ricardo in his Principles of Political Economy and Taxation Published in 1817.
10. De Mello [1999]. International Food Policy Research Institute. "Food need of developing countries: projectiotions of production and consumption.
11. Ekowa, R. [1979]. Food Policy and Economic Development in Nigeria. C.B.N by page publishers.
12. Emeh, U. (1996). Trade, Innovation, and Growth in the Global Economy. Cambridge, MIT Press.
13. *Evsey- Domar (1946) Accelerating Economic Growth in Nigeria, the Role of Agricultural output. Research of Economic Theory 2(1): 11-15, Kog iSta te Un iversity,A nyigba.*
14. Ezeh, C.I. [2003). Comparative study of consumer purchase attitude of 75 local and foreign rice in Abia State. Proceedings of 42nd meeting of Agricultural Society of Nigeria held at Ebonyi State University, Abakaliki, 19-23October 2008; pp.764-776.
15. Feder, T. (2001) The Nigerian rice economy in a competitive world: constraints, opportunities and strategic choices. Nigerian rice economy: state of the art.2001;pp.1-57.

16. Federal Ministry of Agriculture and Rural Development. Agricultural Transformation Agenda: We will grow Nigeria's agricultural sector (Draft for discussion). Federal Ministry of Agriculture and Rural Development, Abuja, Nigeria. 2011;pp.1-105.