Import Competition and Unemployment in Nigeria

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Abstract: The paper examines the effect of import competition on unemployment in Nigeria during the period from 1981 to 2017. The ARDL (Bounds) test approach to cointegration and error correction modeling was employed for the analysis. Among other findings, the study finds negative and significant short run effect and, positive and significant long run effect of import competition on unemployment in the country. These suggest that though import competition may mitigate unemployment in the short run, yet it exacerbates the unemployment problem in the long run. Based on the empirical evidence, the study recommends *inter alia* efforts by the government to invest massively in the productive sectors of the economy with the potentials for job-creation, and encourage private sector participation therein (by way of development of infrastructure, favourable tax regimes and reduction of cost of doing business). These could engender increase in economic activities, expansion of product quantities and upgrade of quality of outputs which have the potentials to reduce import dependence, enhance product competitiveness in both domestic and foreign markets, thereby leading to creation of more jobs.

Keywords: Import Dependence; Import Penetration; Unemployment; Import Penetration

JEL Classification: F16; J64; P33

1. Introduction

Import competition (also referred to as import penetration or import dependence) is the extent to which imports account for 'apparent consumption' in an economy. High import penetration rate implies high degree of dependence on imports for satisfaction of domestic demand. Several factors are responsible for high import dependence. From a macroeconomic perspective, high import dependence in less developed countries (LDCs) could be as a result of low level of domestic output. This necessitates increased demand for imports to meet excess demand for goods and services. However, in highly industrialised and developed countries, high import penetration could result from intensification of intra-industry trade. Intra-industry trade, which is trade in differentiated products such as automobile, textile, mobile phones, etc. occurs mainly between developed or industrialised countries, and it

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accounts for the largest share of global trade (UNCTAD, 2014). High import competition or import penetration could transpire if a country exports significant share of its output while importing large amounts of products of its trading partner(s). Thus high import penetration is not peculiar with LDCs only (WTO, 1984).

Global trade volumes and values have increased with the intensification of the new wave of globalization characterized by increased trade liberalisation (removal of barriers to cross-border trade flows). While some countries have benefit by it, others have not been able to absorb the presumed benefits, owing *inter alia*, to low their competitive advantage in international trade (Aigheyisi, 2013). A key feature of the recent wave of globalization is increased import competition which has had mixed effects in importing countries. While importation has engendered access to foreign goods, technology and services not available locally, and enhanced consumption as a result of decrease in prices of consumption (final) goods brought about by competitive pressures, the effects of import penetration or import competition on employment and wages in various sectors of the economy have been largely adverse as seen in recent studies by various researchers (Herath, Cao & Cheng, 2013; Autor, Dorn & Hanson, 2013; Acemoglu, Autor, Dorn, Hanson & Price, 2014; Herath, 2014; Ashournia, Munch & Nguyen, 2014).

Nigeria's economy has been highly import-dependent. The country's imports include basic raw materials, intermediate and final goods, technology and services. The high import-dependence is reflected by the country's non-oil balance of trade which has been predominantly negative, owing to preponderance of imports over exports. However, the government has begun to take some steps towards enhancing its non-oil exports.

Though several studies have investigated the effect of import penetration on employment/unemployment in various countries (including the United States and Canada) and regions, to the best of our knowledge, this is yet to be done using Nigeria as the focus country. Admittedly, several studies have been conducted to investigate the factors explaining unemployment in Nigeria, but the potential unemployment effect of import competition has not been empirically explored. The objective of this study is to examine the effect of import competition on unemployment in Nigeria. This study is imperative considering that Nigeria is a net importer of most tradable products, apart from crude-oil. It was recently reported that Nigeria is the largest importer of refined petroleum product among member countries of the Organisation for Petroleum Exporting Countries (OPEC). Unemployment and underemployment rates in the country have maintained upward trends, with its attendant economic, social and psychological effects. According to the country's National Bureau of Statistics, the country's unemployment rate which was 18.1% in 2017 rose to 23.1% by September 2018 (NBS, 2018). Examining the effects of import competition on unemployment in the country will therefore provide

some guides in formulation of policy targeted at reducing unemployment in the country.

2. Literature Review

Some of the previous studies that examine the effect of import competition on unemployment are reviewed in this section.

Herath, *et al.* (2013) investigated the effect of trade liberalisation on employment levels in Sri Lanka in the period from 1990 to 2012 using OLS technique for estimation of a multiple linear regression model. The study found that import penetration adversely affect employment in the country. Specifically, a 1% rise in import penetration ratio resulted to decrease in total employment by 0.52%. Further evidence from the study were that export intensity positively and significantly affects employment as a1% rise in export intensity was found to be associated with about 0.61% rise in total employment in the country. The policy implication of the empirical evidence is that for the country to raise its employment level, it should articulate and implement policies that favour exports and discourage dependence on imports.

Labour market reaction to rising Chinese import penetration in the U.S. during the 1990-2007 was investigated in Autor, Dorn and Hanson (2013) using the two-stage least squares estimation technique. The study found that rising imports had been associated with lower labour force participation rate and higher unemployment in the country. It was also found to have been associated with lower wages in local labour markets housing import-competing manufacturing industries.

Acemoglu, *et al.* (2014) examined the contribution of rapid rise in import competition from China to the slow growth of employment in the U. S. in the period from 1999 to 2011. The study found that increase in imports from China was a major contributor to the reduction in manufacturing employment in the country, and through input-output linkages, import penetration tended to adversely affect the growth of U.S. jobs. The magnitude of the job loss effect was found to be greater in the local labour market.

In a study to investigate the effect of international trade on employment generation in Sri Lanka, Herath (2014) examined the effects of import penetration rate, export intensity and weighted tariff rate on employment while controlling for the effects of GDP, capital labour ratio, real wage rate and FDI. The OLS estimator was employed for estimation of a multiple linear regression model specified for the study. The study found, *inter ali*a, a significant negative effect of import penetration and a significant positive effect of export intensity on employment generation in the country. Hence import penetration adversely affects employment in Brazil. Considering the theorized positive relationship between employment and economic growth, increase

in import penetration rate could also adversely affect economic growth in the country.

Ashournia, *et al*. (2014) investigated the impact of Chinese import penetration at firms level on the Danish firms and workers' wages using panel dataset for the period 1997 to 2008. Fixed effect instrumental variable and OLS techniques were employed for analysis of the data. The study found a negative relationship between Chinese import penetration and firm-level demand shock particularly in low-skilled intensive products. Thus, increase in Chinese import penetration rate engenders lower wages for low-skilled workers.

Edwards and Jenkins (2015) examined the impact of Chinese import penetration on production and employment in South Africa's manufacturing sector in the period from 1992 to 2010 using percentage and trend analyses. The study found that import penetration from the Asian country (China) engendered reduction in South Africa's manufacturing output and manufacturing sectors' employment by 5% and 8% respectively in 2010 than in the previous years.

The impact of import penetration on employment in manufacturing sector of 12 OECD countries was investigated in Kollner (2016) using various model specifications and alternative estimation techniques. The empirical evidence showed that import penetration positively, but weakly affected manufacturing employment growth. The study also found that importation of intermediate inputs from China and new member countries of the European Union substitute (adversely affects) employment in manufacturing sectors of highly developed countries, while imports from EU-27 members complemented (favoured) employment in domestic manufacturing sector.

The effect of Chinese import penetration on employment levels in Canada in the period from 2001 to 2011 was investigated in Murray (2017) using the instrumental variable-two stage least squares (IV-2SLS) estimation technique. The study found that the "China Shock" which is the phrase used to refer to rising inflows of China's export in the country caused huge job losses in the country and much of the job losses was in the manufacturing sector. Specifically, a percentage point increase in exposure to Chinese import was associated with a 1.36 percentage point reduction in annual employment growth in the country (Canada).

Nguyen, Van, Nguyen and Tran (2017) investigated the effect of import penetration on firms' employment in Vietnam in the period from 2000 to 2009 using differenced and instrumental variables approach. In the study, increased import penetration was used as a proxy for competitive pressure that may induce technical changes (which is a key determinant of economic growth) or a crowding out effect which affect firm employment positively or negatively. The model specified for the investigation is estimated using the OLS technique. The empirical result indicated negative and statistically significant impact of increased import penetration on employment in the

country. This was attributed to the fact that Vietnam economy was dominated by SMEs which were less developed and characterized by limited technology. These enterprises accounted for over 96% of total number of enterprises in the country, and were exposed to intensified competition which adversely affected their production and employment levels as a result of cheap imports with similar technology especially from China.

3. Theoretical Framework and Methodology

The Okuns Law postulated by Okun (1962) which relates unemployment to economic growth provides the theoretical framework for this study. According to this law, Economic growth serves to reduce the rate of unemployment in a country, *ceteris paribus*. Economic growth is theorized to be job-creating.

$UN = f_1 (RGDP); \Delta UN = f_1(\Delta RGDP)$ [1], $f_1 < 0$, Δ stands for 'change'.

Building on this law, with some modification by incorporating import competition, and other macroeconomic variables (such as investment, government expenditure, trade openness, inflation hypothesized as factors affecting unemployment in line with theory (such as the Philips Curve rule) and empirical literature (Aigheyisi, 2015; Oaikhenan and Aigheyisi, 2015; Aigheyisi and Ebiaku, 2016) we specify our model to investigate the effect of import competition on unemployment rate in Nigeria as:

$$UN = f (RGDP, imcom, infl, gfcf, gfcexp, EXRT, lintr)   [2]$$

Where UN = unemployment rate, measured as unemployed population (aged 15-64) as a percentage of the labour force (aged 15-64); RGDP = Real GDP (proxy for the economy); imcom = import competition; measured as ratio of imports value (M) to apparent consumption or domestic demand (GDP – X + M), where GDP = gross dometic product at current market price, X = Exports value; gfcf = gross fixed capital formation as a percentage of GDP. This measure of import penetration is prescribed by the WTO (1984); gfcexp = government final consumption expenditure as a percentage of GDP; EXRT = Nominal (₦/$) exchange rate; lintr = lending interest rate.

The empirical specification of the long run model is represented as:

$UN_t = \beta_0 + \beta_1 ln(RGDP_t) + \beta_2 imcom_t + \beta_3 infl_t + \beta_4 gfcf_t + \beta_5 gfcexp_t + \beta_6 EXRT_t + \beta_7 lintr_t + \xi_t$ [3]

The *a priori* expectations are: $\beta_1 < 0$, $\beta_2 > 0$, $\beta_3 < 0$, $\beta_4 < 0$, $\beta_5 < 0$, $\beta_6 < 0$, $\beta_7 > 0$. The variables are as defined above. ξ is the error term.

The Okun's law provides justification for the expected negative sign on the coefficient of RGDP. Increase in real GDP is expected to bring about decrease in unemployment rate. Based on evidence from previous empirical studies as seen in

the review of literature section of this study, we expect high import competition to worsen the unemployment problem in Nigeria. This is as a result of its effect on economic activities of domestic producers and employers in various sectors including primary (agriculture, mining, etc.), secondary (manufacturing, etc.) and tertiary (services) sectors, which are less competitive in the global market. High import competition in the domestic market could force firm closure or firm downsizing with the attendant consequence of job loss resulting in increase in the unemployment rate especially in the long run. However, in the short run, import competition could be beneficial, creating job opportunities for those involved in importation activities. This may be transient.

The short run Phillips curve justifies the expected negative sign on coefficient of inflation variable. A trade off exists between inflation and unemployment. However, the long run Phillips curve predicts no trade-off between the variables. All things being equal, capital formation or investment serves to boost the level of economic activities, engendering job creation, thereby reducing unemployment. Hence the coefficient of gross fixed capital formation as a percentage of GDP is expected to be negatively signed. Government final consumption expenditure is expected to reduce the rate of unemployment in an economy if the bulk of government expenditure on consumption goods and services go into patronage of locally made goods. Where this transpires, the expenditure is said to be productive. This will encourage local producers and enhance economic activities, leading to job creation in the private sector of the economy.

The expected negative sign on exchange rate variable is based on international trade theory which predicts that currency depreciation (increase in the exchange rate) boosts exports as a nation's exports commodities become cheaper in foreign markets (depending on the elasticity of demand for the country's export items and their competitiveness in foreign markets), and curbs importation since imported items become more expensive in domestic market (this also depends on the elasticity of demand for imports and their competitiveness in the domestic or home or local market). The boost in exports is expected to create more jobs in the economy.

Lending interest rate is expected *a priori* to be positively related to unemployment as high interest rate implies increase in cost of borrowing for investment, which may discourage domestic investment, leading to loss of jobs as result of firms' closures or downsizing.

Equation [3] models the long run relationship between unemployment and the explanatory variables. The short run effects of import penetration and other explanatory variables on the dependent variable (unemployment) can be represented by an error correction model specified as:

$$\Delta UN_t = a_0 + a_1 \Delta UN_{t-1} + \sum_{h=0}^{l} \left(\lambda_h \, \Delta \ln(RGDP_{t-i}) \right) + \sum_{i=0}^{m} \left(\beta_i \, \Delta imcom_{t-i} \right)$$

$$+ \sum_{j=0}^{n} \left(\chi_j \, \Delta inf_{t-j} \right) + \sum_{r=0}^{d} \left(\varphi_r \, \Delta gfcf_{t-r} \right)$$

$$+ \sum_{k=0}^{P} \left(\partial_k \, \Delta gfcexp_{t-k} \right) + \sum_{v=0}^{r} \left(\pi_v \, \Delta \ln(EXRT_{t-v}) \right)$$

$$+ \sum_{c=0}^{q} \left(\phi_c \, \Delta lintr_{t-c} \right) + \Omega EC_{t-1} + \mu_t \qquad [4]$$

The variables are as previously defined. EC_{t-1} is the one-year lagged residual from the estimated long run model. It is referred to as the error correction term. Its coefficient is expected to be negative signed, and statistically significant for it to play the role of error correction in the model. *i, m, n, d, p, r, q* represent the optimal lags of the respective variables. $\lambda_h, \beta_i, \chi_j, \varphi_r, \partial_k, \pi_v, \phi_c$, represent the short run effects of the respective explanatory variables on the dependent variable. μ is the error term.

The variables were tested for unit root to ascertain their stationarity properties using the augmented Dickey-Fuller (ADF) and the Kwiatkowski-Phillips-Schmidt-Shin (KPSS) tests. The ARDL (Bounds) test approach to cointegration and error correction modeling methodology proposed by Pesaran and Shin (1999) was thereafter employed for the cointegratio and error correction analysis. The choice of this methodology was informed by the fact that it is applicable in cases of small finite data sample size, it is applicable in cases of variables that are of mixed order of integration, it yields consistent and efficient long run parameter estimates even in the presence of regressor endogeneity peculiar with cointegrated regressors (Pesaran Smith & Shin, 2001).

Data used for the study are annual time series data spanning the period from 981 to 2017. The data were sourced from the World Bank's World Development Indicators database (2018).

4. Results and Discussion

4.1. Unit Root and Cointegration Tests

The summary of the results of the unit root test is presented in Table 1. The test involves the ADF and the KPSS tests for unit root.

Table 1. Unit Root Test Results

Augmented Dickey Fuller (ADF) Unit Root Test						
Level			First Difference			d^*
Variables	ADF test stat.	Critical Value (5%)	Inference	ADF test stat.	Critical Value (5%)	Inference	
UN	-2.54	-3.54	NS	-7.72	-3.54	S	1
ln(RGDP)	-1.49	-3.55	NS	-3.67	-3.54	S	1
imcom	-2.41	-3.54	NS	-7.30	-3.54	S	1
infl	-3.89	-3.54	S	-	-	-	0
gfcf	-3.65	-3.54	S	-	-	-	0
gfcexp	-2.56	-3.55	NS	-5.36	-3.54	S	1
Ln(EXRT)	-1.73	-3.54	NS	-4.14	-3.55	S	1
lintr	-2.11	-3.54	NS	-5.44	-3.55	S	1
Kwiatkowski-Phillips-Schmidt-Shin (KPSS) Unit Root Test						
Level			First Difference			d^*
Variables	KPSS test stat.	Critical Value (5%)	Inference	KPSS test stat.	Critical Value (5%)	Inference	
UN	0.09	0.15	S	-	-	-	0
ln(RGDP)	0.20	0.15	NS	0.13	0.15	S	1
imcom	0.43	0.46	S	-	-	-	0
infl	0.11	0.15	S	-	-	-	0
gfcf	0.15	0.15	NS	0.08	0.15	S	1
gfcexp	0.12	0.15	S	-	-	-	0
ln(EXRT)	0.20	0.15	NS	0.06	0.15	S	1
lintr	0.16	0.15	NS	0.06	015	S	1

Source: Author's Estimation using EVIEWS 9

d^* = order of integration; NS = Non-stationary; S = Stationary; ln = natural logarithm

ADF and KPSS tests yield same results for ln(RGDP), infl, ln(EXRT) and intr, but different results for other variables. Broadly speaking, the unit root test results indicate that the variables are of mixed order of integration. While some variables are stationary at levels (integrated of order 0, others are stationary at first difference (integrated of order 1). In view of the mixed order of integration of the variables, we opt for the ARDL (Bounds) test to test for cointegration relationships among the variables. The result of the cointegration test is presented in Table 2.

Table 2. Bounds Test for Cointegration

ARDL Bounds Test		
Sample: 1983 2017		
Included observations: 38		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	K
F-statistic	5.03	7

Critical Value Bounds		
Significance	Lower (I0) Bound	Upper (I1) Bound
10%	2.03	3.13
5%	2.32	3.5
2.5%	2.6	5.84

Source: Author's Estimation using EVIEWS 9

K= Number of explanatory variables

The Bounds test for cointegration indicates that the variables are cointegrated, as the null hypothesis of no long run relationships is rejected by the F-statistic which is greater than the upper bound critical value even at the 1% level. In view of this, we proceeded to estimate the ARDL-based error correction and long run models.

4.2. Model Estimation

The results of estimations of the short run and the long run models are presented in Table 3.

Table 3. Short Run (Error Correction) and Long Run Estimates

Dependent Variable: UN			
Selected Model: ARDL(1, 0, 2, 2, 0, 2, 0, 0)			
Sample:1981 2017			
Included observations: 35			
Cointegrating Form			
Variable	Coefficient	t-Statistic	Prob
d(ln(RGDP))	-15.46	-2.29	0.033
d(imcom)	0.001	0.01	0.995
d(imcom(-1))	-0.58	-2.51	0.021
d(inf)	-0.11	-2.01	0.058
d(inf(-1))	0.13	2.06	0.053
d(gfcf)	-0.11	-0.66	0.514
d(gfcexp)	0.55	0.80	0.430
d(gfcexp(-1))	-1.61	-2.06	0.053
d(ln(EXRT))	0.72	0.37	0.714
d(lintr)	-0.07	-0.26	0.800
EC$_{t-1}$	-0.86	-5.34	0.000
Long Run Coefficient			
Variable	Coefficient	t-Statistic	Prob.
ln(RGDP)	-17.92	-2.17	0.04
imcom	0.74	2.43	0.02
infl	-0.22	-3.06	0.006
gfcf	-0.13	-0.69	0.50
gfcexp	2.53	3.22	0.004
ln(EXRT)	0.83	0.37	0.72
lintr	-0.08	-0.25	0.80
C	465.00	2.20	0.04

Source: Author's Estimation using EVIEWS 9.

The Okun's law is verified in both the short run and the long run as unemployment is found to be inversely related to real GDP at the 5% significance level. Thus economic growth (increase in real GDP) will engender reduction in unemployment in the short run and also in the long run in Nigeria. This corroborates evidence from previous studies such as Aigheyisi (2015), Aigheyisi and Ebiaku (2016), Adeleye, Odeleye and Aluko (2017). The contemporaneous short run effect of import competition on unemployment is positive, but statistically not significant. However, the one-year lagged effect of import competition on unemployment is negative and significant at the 2.5% level in the short run. This short run negative effect of import competition could be attributed to employment or jobs created in the importing sectors of the economy. However this is only transient or temporary as the long run coefficient of import competition variable which is negative and significant at the 2.5% indicates that import competition will engender increase in unemployment rate in the long run.

The contemporaneous effect of inflation on unemployment rate is negative and significant at the 10% level. This validates the short run Phillips Curve which posits an inverse relationship (trade-off) between inflation and unemployment in the short run. However, prior year inflation tends to push current unemployment rate upwards. This could be attributed to inflation expectation where employers tend to downsize their workforce as a result of previous period inflation, and on the expectation that it may be sustained in the current year. However, contrary to the expectation of the long run Phillips Curve which posits no trade-off between inflation and unemployment in the long run, the estimated long run coefficient of inflation is negative and statistically significant at the 1% level, suggesting that trade-off exists between inflation and unemployment also in the long run.

Though the coefficient of gross fixed capital formation (investment) is negatively signed as expected, yet it is not statistically significant. This is observed for both the short run and the long run models. It suggests that the level of investment in the economy has not been substantial enough to reduce the rate of unemployment therein. The contemporaneous effect of government final consumption expenditure on unemployment is also not statistically significant at conventional levels of significance in the short run. However its one-year lagged effect on unemployment is negative and significant at the 10% level in the short run. Thus government final consumption expenditure serves to reduce unemployment rate in the short run in Nigeria, albeit, with a lag of one-year. However, in the long run, increase in government final consumption expenditure drives up unemployment in the long run in Nigeria. This is indicated by the positive long run coefficient of the variable which is significant even at the 1% level. This tends to suggests that this class of government expenditure goes mainly into imported consumer items, and this adversely affects local investors and worsens the unemployment situation in the country.

The long run and short run effects of exchange rate and lending interest rate on unemployment are statistically not significant. This suggests that exchange rate and lending interest rate are not significant determinants of the rate of unemployment in the country.

The error correction term is negatively signed and statistically significant, as expected. Thus it will rightly act to restore equilibrium in the system in the event of short run deviation therefrom. The absolute value of the coefficient of error correction term implies that 86% of the sort run deviation from equilibrium is corrected annually to restore the equilibrium position. Thus the speed of adjustment to equilibrium is quite high.

5. Recommendation and Conclusion

5.1. Recommendations

Based on the empirical evidence from this study, the following are recommended for policy considerations:

i. The government of Nigeria must focus on achieving sustainable economic growth, as this is a key factor for reducing unemployment in the country as indicated by the negative and significant short run and long effects of real GD on unemployment rate. To this end, efforts must be channeled into ensuring that factors and conditions favourable to growth (such as infrastructural development, human capital development, investment and business friendly policies, favorable tax regime, tight security, etc.) should be put in place to set the economy on the path of sustainable economic growth.

ii. The observed long run positive and significant effect of import competition on unemployment rate which implies that import competition will worsen the unemployment problem in the long run calls for effort to address the import-dependence nature of the economy. There is need to revamp the nation's productive sectors so as to enhance the quality and quantity of output therefrom. This will enhance the competitiveness of the nation's output in both domestic and foreign markets, and dampen import competition and its adverse effect on employment in the country.

iii. Some level of inflation is required to reduce unemployment rate in the country. This suggests that deflation must be guarded against. However, high inflation must be prevented. It therefore behooves the monetary authority to target inflation rates that are compatible with investment and economic growth so as to reduce unemployment in the country.

iv. There is need for Nigeria's government to cut down on its consumption expenditure as this drives up the rate of unemployment in the long run, and consider channeling more of its resources into capital projects with the potentials to boost job creation in the long run.

5.2. Conclusion

The study examined the effects of import competition on unemployment in Nigeria. The ARDL bounds test approach to cointegration and error correction modeling was employed for the analysis. The study found import competition serves to reduce unemployment in the short, but increases it in the long run. The Okun's law was validated as economic growth was found to be associated with reduction in unemployment rate in the short- and long-run. The short run Philips curve relation was also validated as inverse relationship (trade-off) was found between inflation and unemployment. The trade-off is sustained in the long run, thus invalidating the long run Phillips curve which posits no trade-off between inflation and unemployment in the long run. Government final consumption expenditure was found the inversely related to unemployment in the short-run, though the relationship was significant at the 10% level. This suggests that government consumption expenditure serve to reduce unemployment in the short-run. However, its long run effect on unemployment is positive and highly significant. This implies that increased government expenditure on goods and services for direct consumption and satisfaction of individuals in the economy serves to worsen the unemployment situation in the long run. Though the effects of exchange rate and lending interest rate on unemployment rate were respectively positive and negative in the short- and long-run, yet they were not statistically significant.

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Appendix

Table A1. ARDL Model for Unemployment

Dependent Variable: UN
Method: ARDL
Date: 04/08/19 Time: 02:13
Sample (adjusted): 1983 2017
Included observations: 35 after adjustments
Maximum dependent lags: 1 (Automatic selection)
Model selection method: Akaike info criterion (AIC)

Dynamic regressors (2 lags, automatic): LOG(RGDP) IMCOM INFL GFCF
    GFCEXP LOG(EXRT) LINTR
Fixed regressors: C
Number of models evalulated: 2187
Selected Model: ARDL(1, 0, 2, 2, 0, 2, 0, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
UN(-1)	0.137454	0.161434	0.851452	0.4046
LOG(RGDP)	-15.45919	6.756661	-2.287992	0.0332
IMCOM	0.001417	0.229096	0.006184	0.9951
IMCOM(-1)	0.053511	0.227568	0.235141	0.8165
IMCOM(-2)	0.584522	0.233067	2.507952	0.0209
INFL	-0.110303	0.054772	-2.013861	0.0577
INFL(-1)	0.049665	0.064940	0.764779	0.4533
INFL(-2)	-0.127810	0.061999	-2.061505	0.0525
GFCF	-0.113408	0.170716	-0.664306	0.5141
GFCEXP	0.552499	0.686544	0.804753	0.4304
GFCEXP(-1)	0.025031	0.934228	0.026794	0.9789
GFCEXP(-2)	1.608128	0.780107	2.061418	0.0525
LOG(EXRT)	0.719719	1.933025	0.372328	0.7136
LINTR	-0.068591	0.266833	-0.257055	0.7998
C	401.0824	173.9413	2.305849	0.0320

R-squared	0.842483	Mean dependent var	10.18000
Adjusted R-squared	0.732221	S.D. dependent var	7.184074
S.E. of regression	3.717568	Akaike info criterion	5.761543
Sum squared resid	276.4062	Schwarz criterion	6.428121
Log likelihood	-85.82701	Hannan-Quinn criter.	5.991646
F-statistic	7.640747	Durbin-Watson stat	2.184338
Prob(F-statistic)	0.000030		

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

Source: Estimation output using EVIEWS 9