DO EXPORT CREATE AND IMPORT KILL JOBS? EVIDENCE FROM ARDL BOUND APPROACH, DYNAMIC OLS, GMM AND VEC

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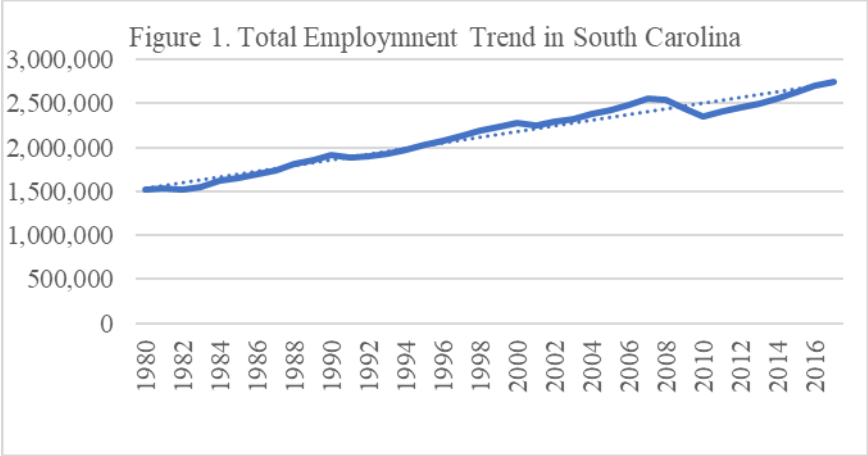
ABSTRACT

There is a wide spread notion that exports create jobs and imports destroy jobs. While the impact of exports to employment is well documented, not much research can be found on the impact of imports on creating jobs. The main purpose of this study is to explore empirically the short-run and long-run interconnectedness of imports and exports on employment. The methodologies applied include ARDL Bounds Test, Dynamic OLS (DOLS), GMM, Vector Error-Correction, Granger Causality and Impulse Response methodologies. The ARDL bound test shows long-run relationship among employment, export, and import. Both imports and exports have significant positive effect on the growth of total employment of South Carolina. The Dynamic OLS result indicates both export and import have significant positive effect to employment. GMM estimate indicates export has positive and import has negative impact on employment. Vector-error correction estimates show import has positive and export has negative impact. Granger causality test indicate unidirectional causality from employment to export and import to export. Impulse response indicates that exports and imports have positive response to employment. These results imply South Carolina policy makers need to pursue pro-trade policy to stimulate employment growth.

Keywords: Employment, Export, Import, ARDL.

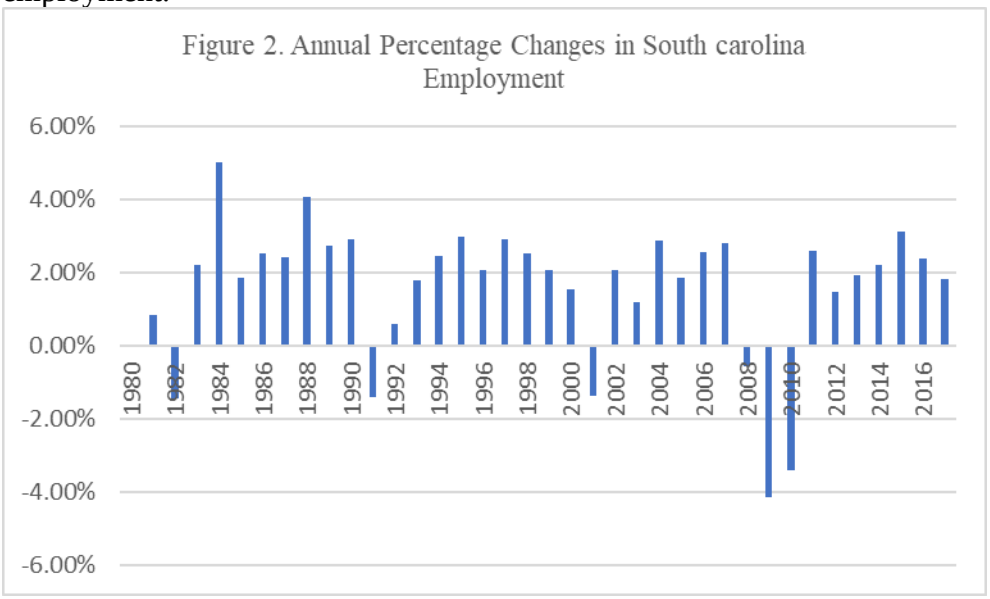
INTRODUCTION

The state of South Carolina, also known as the Palmetto State, is a 32,020 square mile area encompassing forty-six counties. The geographic positioning of this southeastern state includes a coastline of approximately 187 miles of the Atlantic Ocean. This juxtaposition of the state to the ocean has become a great resource endowment plays an important role as the gateway to international import and export of goods and services. In addition, the coastal areas are major tourist attractions that provide economic benefits in employment and incomes. The trend of South Carolina total employment trend and annual growth for 1998 – 2017 are summarized in Figures 1 below.



Source of data: Bureau of Economic Analysis (www.bls.gov).

Even though the total employment has grown over the long term by 1.63%, the percentage annual growth rate shows ups and downs that are somewhat cyclical in nature as depicted in Figure 2. The negative growth rates were during the years 1982, 1991, and 2008-2011. The longest negative growth rates were the years 2007-2008 to 2011. The decline in the percentage of total employment growth happened during the Great Recession in the US that started in 2007. After the economic recovery, growth rate increased but have started to slow down again. Growth of employment is a result of firms' decisions based on favorable trade policies and greater increases in demand for goods and services. In order to maximize profit, firms hire different human skills to increase production at least cost. On the other hand unfavorable trade policies and lower demand for goods and services can reduce growth in employment.

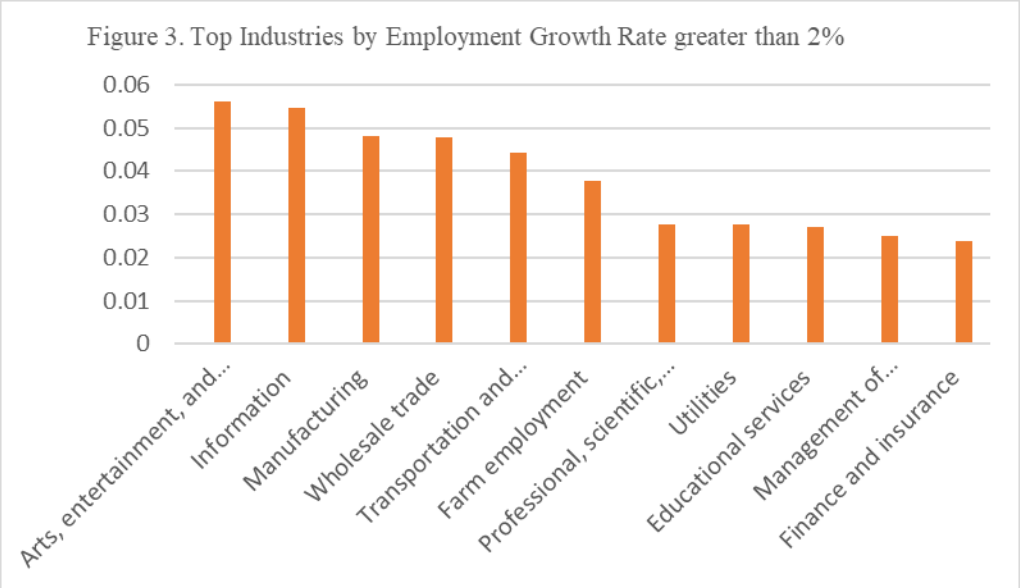


Source of data: Bureau of Economic Analysis (www.bls.gov).

The level of employment in the state averaged at 2,413,603 employees, with a compounded annual growth rate of 1.27 %. The great majority (98.77%) of employment is nonfarm employment. The top five employment areas were private nonfarm employment, government and government enterprises, retail trade, manufacturing, and accommodation and food services with a share of 82.60%, 16.17%, 11.53%, 11.06%, and 8.09% respectively.

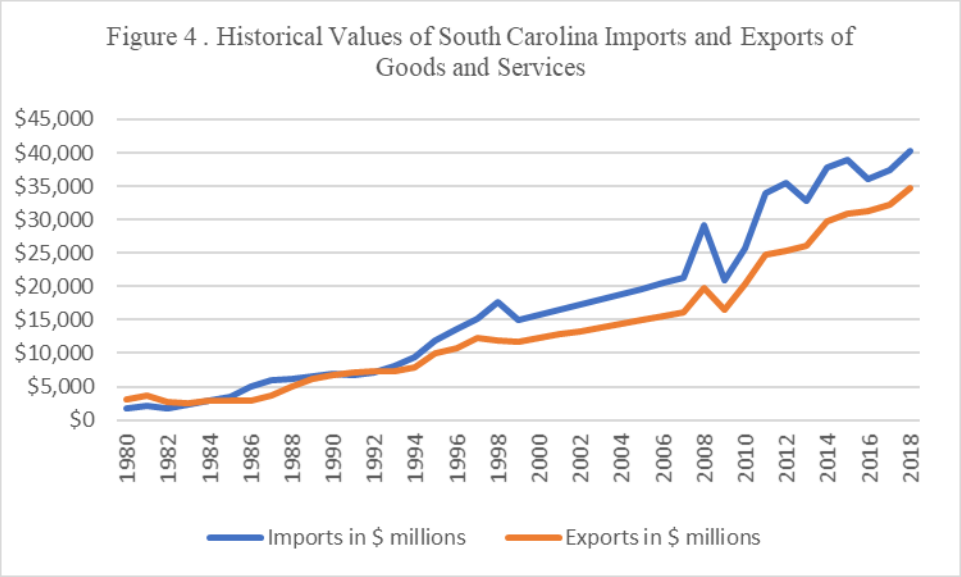
The top industries that grew in employment faster than 2 % as shown in Figure 3 were arts, entertainment, and recreation as a group, information, manufacturing, wholesale trade, transportation and warehousing, farm employment, professional, scientific, and technical services, utilities, educational services, management of companies and enterprises, and finance and insurance.

The top five industries that grew better than 4% were: 1) arts, entertainment, and recreation, 2) information, 3) manufacturing, 4) wholesale trade, and 5) transportation and warehousing (Figure 3). The annual percentage growth rates were 5.6, 5.47, 4.8, 4.78, and 4.41 respectively.



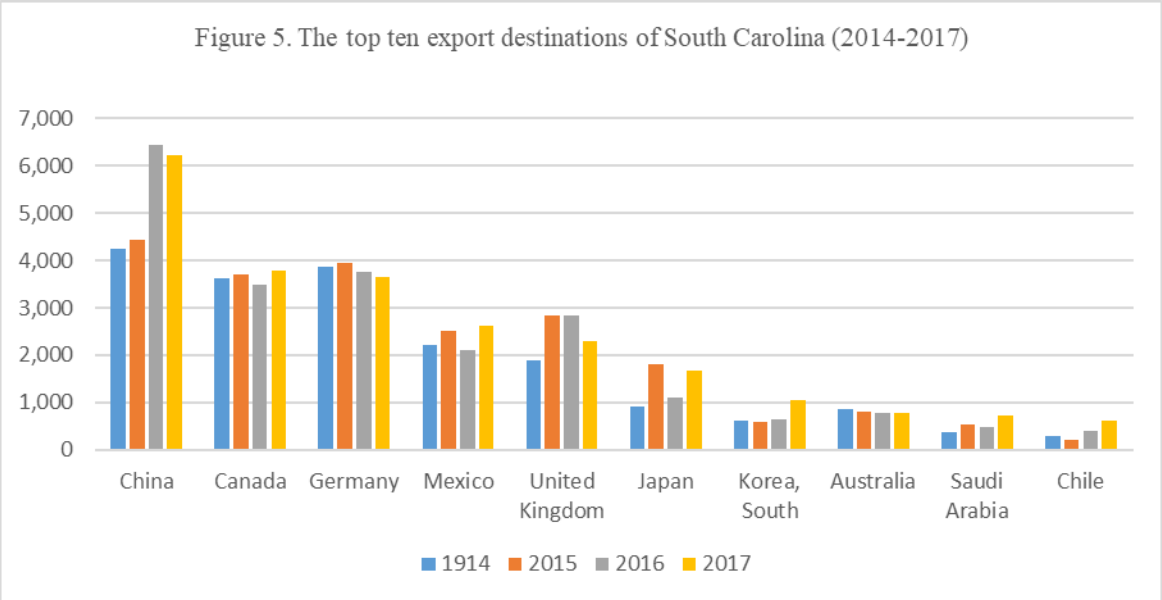
Source of data: Bureau of Economic Analysis (www. bea.gov)

Changes in the level of exports and imports have been generating economic benefits in the State in terms of growth in employment. Exports are one of the sources of domestic employment that generates income through selling goods and services to other countries. According to the SC Department of Commerce, South Carolina's top five export commodities in 2017 were vehicles, aircrafts, machinery, rubber, and electrical machinery. The top five importers in the same year were China, Canada, Germany, and Mexico. Similarly, imports of raw materials, intermediate goods, and final goods and technology generate employment and income domestically even though they flow from other countries. The historical data, as shown in Figure 4 for the State for the last 39 years since 1980 indicates exports grew at an average of 7% while imports grew at an average of 9%.



Source of data: Bureau of Economic Analysis (www. bea.gov)

According to the report of SC Department of Commerce, the total exports increased from 24.7 billion in 2011 to 32.2 billion in 2017, an annual of 3.86%. The five top export items in 2017 were vehicles, aircraft, machinery, rubber, and electrical machinery. As shown in Figure 5, the top five destinations were China, Canada, Germany, Mexico, and UK. There is noticeable faster growth of export activities to China.



Source of data: Bureau of Economic Analysis (www. bea.gov)

Public policy debates and research on the role of free trade, protectionism, trade barriers such as tariffs, quotas, and export promotions such as subsidies abound. Export and import activities have always been targeted by policy makers in determining best alternative international trade policies. Empirical research that explores the positive impact of import on employment is limited.

The main purpose of this study is to explore empirically the short-run and long-run interconnectedness of import and export in relation to growth in employment overtime. There

are five questions this paper attempts to answer. First, what is the impact of exports on employment growth of South Carolina? Second, what is the impact of imports on employment growth? Third, does import affect export or vice versa? Fourth, what is the elasticity of changes of exports and imports over changes on employment growth? Fifth, this paper also attempts to answer the long-run relationship using impulse response of total employment to one standard deviation shocks in export and import.

LITERATURE REVIEW

The focus in the literature regarding the role of imports on the growth of an economy measured by the gross state product and total employment is limited. Evidences exist that indicate imports have positive impact on creating jobs and enhance economic development (Krueger, 2017; Scissors, Espinoza, and Miller, 2012; Tuhin, 2015; Manzella, 2013) implying that policy designed to restrict imports may have a negative effect on employment and economic growth. There are many imported products that are essential components of finished products such as automobiles, commercial and non-commercial planes that play important role in the growth of employment in the state. A firm level study by Bas and Strauss-Kahn (2014) present evidence for the study years of 1996-2005 that imported goods can (1) enhance productivity and as a result increase firm's ability to overcome export fixed costs, (2) boost export revenue through low-priced imports and (3) reduce export fixed costs through quality/technology required in demanding export markets.

As presented by the Trade Partnership Worldwide for Business Roundtable (2018), U.S. trade continues to expand, and with it, U.S. employment. According to the report a 2016 estimate showed trade supported nearly 36 million net U.S. jobs after taking into account for both gains and the losses implying one in every five U.S. jobs is linked to exports and imports of goods and services. For the state of South Carolina the net jobs created by trade was 496,100 which is close to half a million jobs.

A Granger-causality test by Ramos (2001) that looked at the pairwise relationship between exports, imports, and economic growth in Portugal indicate (1) economic growth was found to Granger Cause import, (2) there was a unidirectional causality from export to import and (3) the causation between exports and economic growth, and between imports and economic growth were statistically insignificant. A disaggregation of imports of a state or a country can reveal different categories. A portion of imports are finished products that go into consumptions, some contribute to investment and others are government purchases. There are also imports that go into the production of other goods and services as intermediate goods and eventually leading to the growth of GDP and domestic employment.

Exports as a component of total trade enhance real GSP and employment growth. This is an emerging global consensus in the existing anecdotal body of empirical literature with some minor exceptions. So, export penetration (export market expansion) through product diversification is recommended for economic development.

Asafu-Adjaye, et al (1999) consider the relationships between exports, real output and imports for the sample period of 1960-1994. No evidence was found on the existence of the causal relationship among these variables for India and no support for the export-led growth hypothesis. This is not too surprising, given India's economic history and protective trade policies. According to Saaed and Hussian (2015) unidirectional long-run and short-run

causality from exports to GDP, from GDP to imports, and from imports to exports in Tunisia for 1977-2012 prevailed.

As stated before, research on the effects of import on employment are not abundant. Most of the studies concentrate on one particular country and use national-input-output tables. For example, Kiyota (2016) examines the effects of exports on employment in China, Indonesia, Japan, and Korea using input-output data from 1995 to 2009. The study reveals a strong relation between exports and employment. Also, the effects of exports are not limited to the export related industries but also to non-export industries to the same extent, either negatively or positively. Leichenko (2000) shows a negative effect of export growth on regional employment. However, the study suggests that it is due to the increased economies of scale in production. Slaper (2015) found a negative relationship between export and employment in India. Furthermore, increasing exports does not necessarily create more jobs due to an increase in labor productivity.

Kamal and Lovely (2017) using data from 1997 to 2012 to conclude that imports from middle and high-income countries do not have a significant negative influence on employment. For India, there is strong relationship between export and import over 1980-2013. Also, a change in exports leads to a change in imports both in the long run and in the short run (Hussaini, et al., 2015).

This paper tries to explore the impact of imports and exports on total employment empirically. To understand the impact of imports, one needs to understand the destination of the different categories of goods and services imported. As specified by Palley (2009), imported goods can be disaggregated into imports for consumption, imports for investment, imports by government, and imports embodied in exports. Scissors, Espinoza and Miller (2012) have elaborated in detail how imports support U.S. Jobs and refute the argument of protectionism that imports come at the cost of U.S. jobs by displacing U.S. Production.

The primary objective of this paper is to empirically investigate the impact of export and import on employment of South Carolina. To achieve this objective, ARDL bound cointegration test, Dynamic OLS (DOLS), GMM, Vector-error –correction, Granger Causality and impulse response methodologies are applied. Based on extensive review of literature, similar empirical studies for South Carolina are not available.

DATA AND EMPIRICAL METHODOLOGIES

Annual data from 1980 through 2018 are used. Employment data is obtained from Bureau of Labor Statistics, and workforce development. South Carolina exports (EXP) and imports (IMP) data are collected from Business & Industry, Foreign Trade, and U.S. International Trade Data at the website http://www.census.gov.

Cointegration- ARDL Bounds Testing Procedure

This paper uses the ARDL bounds testing approach introduced by Pesaran and Shin (1999) and extended by Pesaran, Shin and Smith (2001) to investigate the co-integration relationship among employment, export, and import.

The estimating base equation in double-log is specified as follows:

$$LEMPt_t = \alpha_0 + \alpha_1 LEXPt + \alpha_2 LIMPt + \mu_t \quad (1)$$

$$LEXP_t = \beta_0 + \beta_1 LIMPt + \mu_t \quad (2)$$
$$LIMPt_t = \gamma_0 + \gamma_1 LEXPt + \mu_t \quad (3)$$

Where, $LEMP_t$ = Natural Log of Total Employment; $LEXP_t$ = Natural Log of South Carolina Exports; $LIMP_t$ = Natural Log of South Carolina Imports. A priori, expected signs of α_1, α_2, $\beta_1$and γ_1 are greater than zero.

An ARDL representation of equation (1) is shown below:

$$\Delta LEMP_t = \beta_0 + \beta_1 T + \sum_{i=1}^{p} \beta_2 \Delta LEMP_{t-i} + \sum_{i=1}^{p} \beta_3 \Delta LEXP_{t-i} + \sum_{i=1}^{p} \beta_4 \Delta LIMP_{t-i} + \theta_1 LEMP_{t-1} + \theta_2 LEXP_{t-1} + \theta_3 LIMP_{t-1} \quad (4)$$

Where Δ is the first difference, the parameters β_{ij} are the short-run parameters and γ_{ij} are the long run multipliers respectively in equation (2). The null and alternative hypotheses are:

H_0: $\theta_1 = \theta_2 = \theta_3 = 0$

H_1: $\theta_1 \neq \theta_2 \neq \theta_3 \neq 0$

Once the selected long run model is estimated, then the short run dynamic elasticities of the variable within the framework of the errors-correction representation of the ARDL model is estimated as follows in equation 5.

$$\Delta LEMP_t = \beta_0 + \beta_{1i}^{p} \Delta LTEM_{t-i} + \sum_{i=0}^{p} \beta_2 \Delta LEXP_{t-i} + \sum_{i=0}^{p} \beta_3 \Delta LIMP_{t-i} + \sum_{i=0}^{p} \beta_4 \Delta LEMP_{t-i} + \Phi ECM + \tau_t \quad (5)$$

Where Φi is the speed of adjustment and ECM_{t-i} is the residual obtained from equation (4)

To complement the ARDL co-integration results, this study also applied Dynamic Ordinary Least Squares (DOLS), GMM methodology, Vector-Error Correction, Granger causality and impulse response methodologies.

EMPIRICAL RESULTS

Stationarity Tests

In this section, the stationarity test of the variables is checked using DF-GLS, Philips–Perron, and Ng Perron (1997). Earlier similar work can be found in Kwiatkowski, Schmidt, and Shin (1992). After differencing the variables, all variables were confirmed to be stationary. Results of the log level and first difference, with and without trend are reported in Table1.

Table 1. Stationarity for all Variables

Variable	Log Level		First difference	
	Without Trend	With Trend	Without Trend	With Trend
DICKEY-FULLER-GLS				
LEMP	0.28207	-2.3506	0.28207	-3.9479***
LEXP	-2.16925	0.83115	-5.1731	-5.5408***
LIMP	-0.32656	-1.7733	-6.2322	-7.25224***
PHILIPS-PERRON				
LEMP	-0.94727	-3.64935**	-1.79596	-3.5064**
LEXP	-0.42199	-2.3105	-4.1952**	-5.6667****
LIMP	-2.27113	-6.79318***	-2.0507	-7.1095***
Ng-PERRON				
LEMP	0.51073	-10.6357	-15.5075***	-15.5619***
LEXP	1.28844	7.54383	-17.9488***	-18.2093***
LIMP	-0,9977	-4.9319	-18.3476***	-23.8037***

Note1: *, **, *** denote stationarity at 10%, 5%, and 1% significance level
Note2: LEMP= Log of total employment for the state of South Carolina, LEXP= Log of Export, LIMP=Log of Import.

The ARDL test does not require the pretesting of variables, the test gives guidance as to whether ARDL is applicable or not. ARDL is applicable to the analysis of variables which are integrated of order zero {1(0)} or one {1(1)}. It is clear from the tests that variables are stationary after first difference. So, the ARDL bounds test can be done satisfactorily.

Unrestricted ARDL Model

Table 2 presents the unrestricted ARDL model estimates of equation (1). The model in equation 1 is referred to as unrestricted equilibrium correction model. We estimated the long-run parameters and respective standard errors using OLS. The coefficients of log total employment lagged 1 period is positive, export (LEXP)), lagged 1 has negative and lagged 2 positive and import has positive impact on employment.

Table 2. ARDL Estimate
Dependent Variable: LEMP; Independent Variables: LEXP, LIMP
Model selection method: Akaike info criterion (AIC)
Selected Model: ARDL(2, 2, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LEMP(-1)	1.29699	0.136439	9.505988	0.000
LEMP(-2)	-0.591306	0.127961	-4.620997	0.0001
LEXP	0.056032	0.026629	2.104177	0.0438
LEXP(-1)	-0.078278	0.026649	-2.937381	0.0063
LEXP(-2)	0.047941	0.01833	2.615515	0.0138
LIMP	0.022782	0.014356	1.586952	0.123
C	3.785957	0.92182	4.107044	0.0003
R-squared	0.994089	Adjusted R-squared		0.992907

Co-integration and ARDL-ECM Model

To check the long-run relationship among the variables in the general model, ARDL bounds testing procedure is applied. Akanke Information criterion is used to obtain the order of lags on the first differenced variables in equation (1). Next, bound F-test is applied to

equation (1) to establish a long-run relationship between the variables under study. The results of the bounds F-test are reported in Table 3.

Table 3. ARDL Error Correction Regression and Bound Test for Long-run

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.785957	0.866972	4.366875	0.0001
Δ (LEMP(-1))	0.591306	0.117407	5.036386	0.0000
Δ (LEXP)	0.056032	0.016395	3.417592	0.0018
Δ (LEXP(-1))	-0.047941	0.017351	-2.763001	0.0097
CointEq(-1)*	-0.294316	0.067511	-4.359557	0.0001
R-squared	0.626283	Adjusted R-squared		0.579569
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	5.939293	10%	3.17	4.14
K	2	5%	3.79	4.85
		2.5%	4.41	5.52

The result of the ARDL Bounds Test is significant at 1 percent level and it suggests that there exists a long-run relationship among LEMP, LEXP and LIMP. Therefore, the empirical findings lead to the conclusion that a long run relationship among employment, export and import exist. The presence of a cointegrating relationship among LEMP, LEXP and LIMP requires the estimation of short-run dynamic model of the ARDL. Table 3 reports the results. Export and export lagged 1 have positive and negative respectively at significant at 1% level on employment. Besides confirming the existence of cointegration based on the ARDL error-correction model, shows that 29.percentof disequilibria in the growth arising out of past shocks will be corrected in the current period, the speed of adjustment is relatively low.

The results of long run and level equation are presented in Table 4. The results of level equations indicate both export and import have positive effect on employment.

Table 4: ARDL Long Run Form and Level Equation
Dependent Variable: D (LEMP); Independent Variables: LEXP and LIMP

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.785957	0.92182	4.107044	0.0003
LEMP(-1)	-0.294316	0.072254	-4.073357	0.0003
LEXP(-1)	0.025696	0.015842	1.622049	0.1153
LIMP**	0.022782	0.014356	1.586952	0.1230
Δ(LEMP(-1))	0.591306	0.127961	4.620997	0.0001
Δ(LEXP(-1)	0.056032	0.026629	2.104177	0.0438
Δ(LEXP(-1))	-0.047941	0.01833	-2.615515	0.0138

Levels Equation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEXP	0.087309	0.048734	1.79154	0.0833
LIMP	0.077407	0.044562	1.73705	0.0926
C	12.86358	0.090267	142.50630	0.0000

Dynamic OLS, GMM Estimates and Short and Long-term Elasticity

To complement the ARDL co-integration test, the dynamic OLS (DOLS), GMM, Vector Error Correction, Granger Causality and impulse response estimate are applied. The Dynamic Ordinary Least Squares (DOLS) estimates provide statistic long-run relation augmented by leads and lags. This will improve the efficiency of the long-run estimates but does not provide guidance on the short-run behavior. The estimated results are reported in Table 5. The coefficient of export is positive and significant at 2 percent and coefficient of import is positive and significant at 1% level, suggesting that they will lead employment in the long run.

Table 5. Dynamic Least Squares (DOLS) Estimates
Dependent Variable: LEMP; Independent Variable: LEXP, LIMP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEXP	0.043199	0.018360	2.352877	0.0242
LIMP	0.123098	0.016372	7.518907	0.0000
C	12.82873	0.046918	273.4264	0.0000
R-squared	0.970898	Adjusted R-squared		0.969282

This paper uses the GMM method developed by Arellano and Bond (1991) and Arellano and Bovver (1995). The advantage of this methodology is that it points out the econometric problems caused by unobserved effects and endogeneity of the independent variables in lagged–dependent-variable models such as employment. This methodology allows the relaxing of strong endogeneity of the explanatory variables by allowing them to be correlated with current and previous realizations of the error term. The results are reported in Table 6. The J-Statistics is significant at 12% level which indicates the model is correctly specified. The coefficients of export is positive and significant at 2.5% and the coefficient of import is negative and significant at 4 percent level suggesting that export has positive and import has negative effect in the short run on employment.

Table 6. Generalized Method of Moments (GMM) Estimates
Dependent Variable: LEMP; Independent Variable: LEXP, LIMP

	Coefficient	tic	Prob.
LEXP	12.10717	38	0.0252
LIMP	-10.37574	157	0.0483

Short-term elasticity (from GMM Estimates – Table 6) indicates export elasticity with respect to LEMP is 12.10, which is very high. Long-term-elasticity Table 5 (from DOLS estimate) is 0.043, which is low. Short-term elasticity (GMM Estimates) of import (LIMP)) with respect to LEMP is -10.37. Long term import elasticity with respect to LEMP in DOLS estimate is 0.123 which is low.

Vector Error Correction Estimate

On the evidence of co-integrating relationship among LEMP, LEXP and LIMP, Vector-Error model is implemented. The estimated results are reported in Table 7. The coefficient of error-correction term (φ) is significant and it has expected negative sign for convergence toward long-run equilibrium. However, its low magnitude indicates very slow pace of adjustment for convergence toward long-run equilibrium. The lagged 1 and 2 coefficients of export indicate negative and not significant on employment. The coefficients of import

lagged 1-3 are positive and have positive significant effect on employment. The adjusted R^2 for the model shows 0.53514 percent of the current change in employment of South Carolina is accounting by the explanatory variables. The negative AIC value indicates good fit of the model with minimum loss of information

Table 7. Vector Error Correction Estimates

t-statistics are in [ ]

Error Correction:	Δ (LEMP)
Φ	-0.097796
	[-2.23909]
Δ(LEMP(-1))	0.574332
	[2.81222]
Δ (LEMP(-2))	-0.263397
	[-1.14018]
Δ (LEMP(-3))	-0.060679
	[-0.30299]
Δ (LEXP(-1))	-0.037355
	[-1.24836]
Δ (LEXP(-2))	-0.019322
	[-0.64843]
Δ (LEXP(-3))	0.000294
	[0.00989]
Δ (LIMP(-1))	0.005605
	[0.23021]
Δ (LIMP(-2))	0.060089
	[2.44959]
Δ (LIMP(-3))	0.033691
	[1.35297]
C	0.006354
	[1.40787]
R-squared	0.535142
Adj. R-squared	0.341451
Akake AIC	-5.439168

Diagnostic and Parameter Stability tests

We examined the stability of the parameters since model misspecification may arise as a result of unstable parameters. Pesaran and Pesaran (1997) suggest that we should always employ the cumulative sum of recursive residuals (CUSUM) and cumulative sum of squares of recursive residuals (CUSUMQ). Due to space limitation the CUSUM and CUSUMSQ plots are not presented here. Regardless, we find CUSUM and CUSUMSQ are within the critical 5% bounds that confirms the long-run relationships among variables and thus indicates the stability of coefficients.

Granger Causality Test and Impulse Response

The Granger Causality as indicated in Table 8 shows unidirectional causality from employment to export and import to export.

Table 7. Pairwise Granger Causality Tests

Lags: 1				
Null Hypothesis:	Obs	F-Statistic	Prob.	Conclusion
LEXP does not Granger Cause LEMP	38	0.01085	0.9176	Failed to reject
LEMP does not Granger Cause LEXP		6.19045	0.0178	Reject
LIMP does not Granger Cause LEMP	38	2.37147	0.1326	Failed to reject
LEMP does not Granger Cause LIMP		0.3882	0.5373	Fail to reject
LIMP does not Granger Cause LEXP	38	8.34569	0.0066	Reject
LEXP does not Granger Cause LIMP		0.30063	0.587	Failed to reject

The impulse response analysis indicates employment has positive response to export and vice versa. Also, export shows positive response to import and vice versa.

DISCUSSION

South Carolina has been attracting various foreign direct investments that in turn have boosted total employment, imports and exports. For a relatively small and open economy such as South Carolina economy, the pertinent issue in the time of globalization is to answer the question of interrelatedness of import, export, and employment. To understand the role of imports, one needs to understand the destination of the different categories of goods and services imported. As specified by Palley (2009), imported goods can be disaggregated into imports for consumption, imports for investment, imports by government, and imports embodied in exports. Scissors, Espinoza and Miller (2012) have elaborated in detail how imports support U.S. Jobs and refute the argument of protectionism that imports come at the cost of U.S. jobs by displacing U.S. Production. We explored the interconnectedness of imports and exports on total employment empirically with various methods. The results of the ARDL bound test co-integration approach show that in the long-run both export and import have significant positive impact on the employment growth. The dynamic OLS (DOLS) estimates indicate that both export and import have highly positive significant impact but import has stronger impact on employment growth. The GMM result, which provides sort run, reveal export has significant positive impact on employment growth of South Carolina. Vector-error estimates indicate import has stronger positive and import has negative impact on employment. The coefficient of the error-term ($ECM_{(t-1)}$) is negative, as expected. This signifies the long-rum equilibrium relationship among the variables with reinforcing feedback effects. The CUSUM and CUSUMQ tests confirm the long-run relationship among the variables and also show the stability of the coefficients.

CONCLUSIONS

The results of our analysis imply that export and import play pivotal role in propelling South Carolina's employment both in the short and in the long run. Policy implication of this study is that South Carolina development policy makers should promote export and import to accelerate economic growth.

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