Key Factors Contributing in Economic Performance: A Time Series Analysis in Pakistan

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ABSTRACT

The current study tried to examine the key factors contributing in economic performance of Pakistan. The study includes major sectors of economy for examined the economic growth. The study used the time series data set from 1980 to 2015. For empirical estimations, checked the stationarity of data and applied the Auto Regressive Distribution Lag Model technique. So, the empirical results explained that agriculture sector, industrial sector and services sector have positive impact on economic performance. Services sector has major contributor in economic growth. While physical capital and human capital have also positive impact on economic growth.
Key words: Performance, Agriculture, Urbanization, Human Capital and Economy

INTRODUCTION

Economy is the system of human activities which belongs to production, distribution of goods and services and consumption of goods and services within country limits or outside the country. Developing countries have been able to reduction in poverty, political stability in the country, improve their standard of living and improve their natural environment and achieve the growth and development targets (Fajnzylber, Dollar, Ledeman, 2002).

The neoclassical growth models indicate that during the progress of steady state, technology, saving, growth in population, technical progress leads to increase the growth levels in a country (Slow, 1956). Romer and Lucas (1986, 1988) endogenous growth models claim that's increasing in permanent growth rate depends on the assumption of increasing and constant return to capital. Barror and Lee examine the empirical relationship between human capital and economic growth. Barror and Lee support the Romer endogenous growth model and highlight the impact of human capital on economic growth. Fisher claim long term economic growth has positively associated with fiscal performance, foreign exchange rate but negatively associated with inflation. So, for developing countries low inflation rate, human capital, fixed capital, trade openness policies and improve infrastructure are the important key factors for economic growth.

1.1 Pakistan Economy

Pakistan is developing rapidly, which has a diverse economy that includes agriculture, food processing industries, textile, chemical and other major industries. Pakistan's economy is the 41th largest economy in term of gross domestic product and 26th largest economy in term of Purchasing power parity in the world. Pakistan has 6th largest populated country in the world and its nominal per capita GDP has 133th in the world which is 4,993, Dollars.

Major Sectors of Pakistan Economy

- Agriculture Sector
- Industrial Sector
- Services Sector
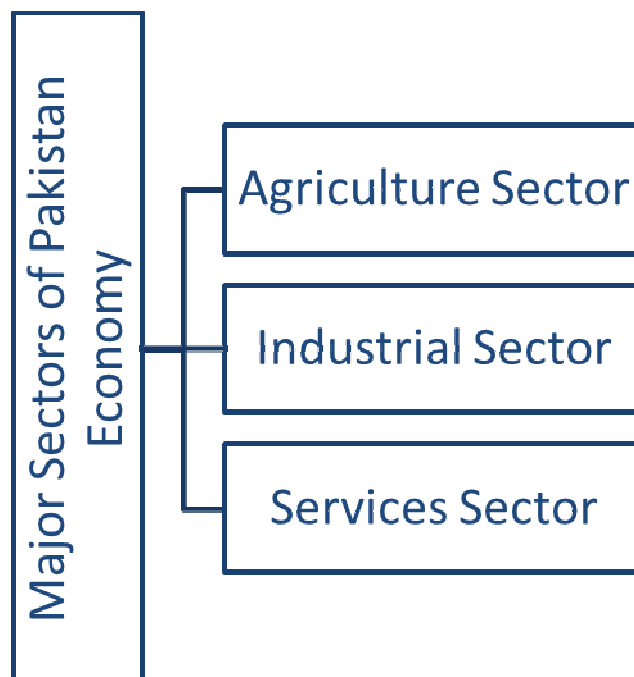
In recent years, Pakistan economy major sectors have experienced double digit growth. Rapid growth in services sector has seen such as, finance, advertising, telecommunication and transportation. Major sectors of Pakistan's economy also have rapid growth, such as industrial sector and agriculture sector, which includes cement, textile, apparel and important major crops wheat, rice, sugarcane and cotton. In major developing countries, agriculture sector has positive and significant impact on the industrial sector and also on the services sector. Because agriculture sector is responsible for the supply of raw material to the industrial sector and industrial sector produce final goods by engaging the services (Krishna, 2004).

Now, the modern economies transform from agriculture to industrial sector and services sector play a positive impact on economic growth of developing countries. In Pakistan services sector has improves the production qualities and service sector important factor of improving economic performance of Pakistan economy.

1.2 Objectives of the Study
- To identify the role of major sector shares in overall economic growth
- To identify the important sector for economic growth
- To identify the role of physical and human capital in overall economic growth

1.3 Significance of Study
Basically, economy divided into three major sectors, agriculture, industry and services sector. It is difficult to check the significance of these three sectors and identify the specific sector's significance. In this modern age of technology developing economies have transformed from agriculture to industrial sector. Agriculture sector provided the raw material to industrial sector, which producing the finishing goods. So, for managing the industrial production process and for supply of final goods, services sector play an important role. In previous literature, there was no difference between products and services, but now products itself provide the services to many customers in all over the world. So services sector is the modern and vital issue in the world. Now we don't neglect the importance of human capital and physical capital for economic growth of developing countries because these are the important determinants of economic growth theories.

THEORETICAL FRAMEWORK
The Lewis dual economy model was influenced by the development economists. According to the classical framework, the dual economy model argued that development of the economy was only possible through the development of industrial sector. Development of agriculture sector can be possible in those countries which have surplus labor. The supporters of the dual economy model believed that the model has to be applicable in those countries which are labor surplus economies. Jorgenson and Thirwal (1961, 1986) following the neo-classical framework of dual economic theories. They suggested the balanced form of economic development in agriculture and industrial sector. Paglin (1965) argued that the marginal productivity of labor in agriculture sector was not zero and employment opportunity in agriculture sector is possible. So, managing the labor in the

agriculture sector and the industrial sector is a complex concept. In this scenario, it is difficult to find out the significance of a specific sector from all three sectors of the economy (industrial, agricultural and services sector). The concept of services sector is a modern concept in economic development because most of the businesses relate to the services sector. In previous literature, there was no difference between products and services, but the products provide services to consumers (Das et al., 2012). Where the agriculture and industrial sectors have greater importance, the services sector also plays a vital role in economic development. Agriculture and industrial sector provide the raw material, foods; contribute in trade, employment and final goods, but the services sector plays its role in managing all the resources in both of these two sectors (agriculture and industry) (Bing et al., 2011).
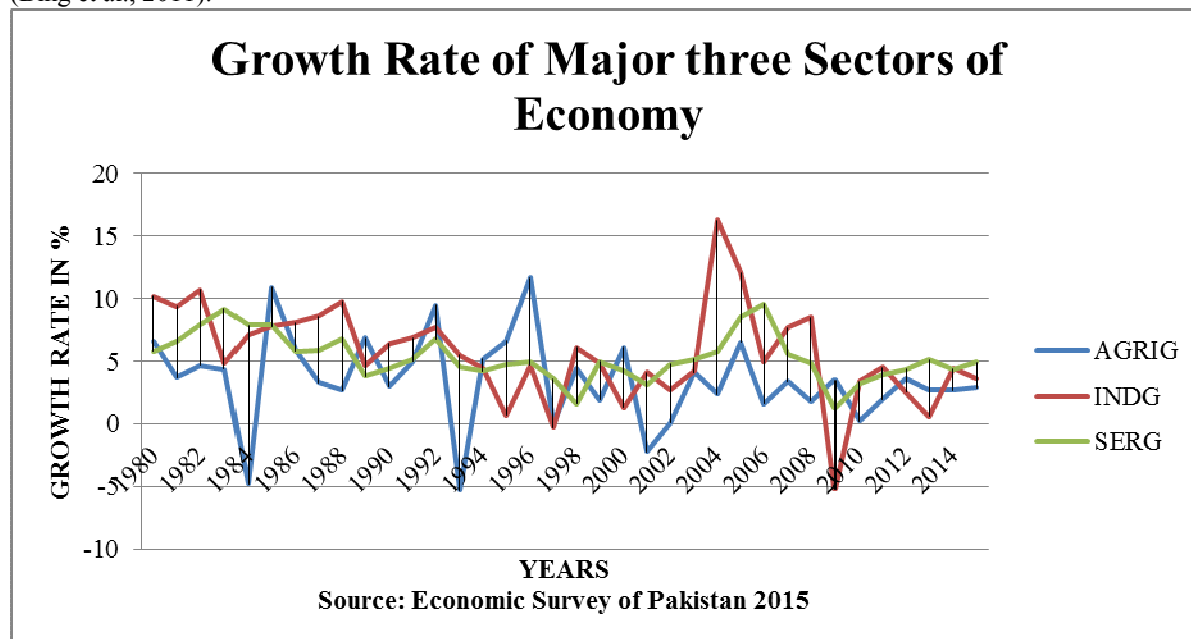

Figure 0.1: Growth in Agriculture, Industrial and Services Sector

LITERATURE REVIEW

Qureshi et al (2015) examined the performance of agriculture sector in the economy. The study used time series data from 1975 to 2012 and targeted country was Pakistan. For the empirical results, Ordinary Least Square econometric technique (OLS) was used. The research found that the agriculture sector has positive and significant role in economic growth and industrial share and trade, share also have a positive effect on economic growth.

Moyenuddind (2015) examined the contribution of major three sectors, agriculture, industrial and services sector in the economy and checked the relationship between these three sectors in Bangladesh. The researcher used the time series data from 1980 to 2013 and applied the Granger Causality technique for empirical results. The Error Correction Model was also used for short term equilibrium among agriculture, industrial and services sector. The empirical results showed that each sector had a positive and significant impact on economic growth of Bangladesh.

Das et al (2012) analyzed the comparison of the services sector with other economic sectors in the economy. The study used sample data of ten years and period was from 2001 to 2010. The targeted country was Bangladesh. For analyzing the contribution of the services sector, the researcher used charts and graphical presentation and also applied T-Test to analyze the average growth of gross domestic product. The findings showed that the services sector contributed 50% in gross domestic product of Bangladesh.

Tijani et al (2012) found the contribution of the agriculture sector in economic growth. This study used time series data from 1970 to 2010 and this research was carried out in Nigeria. Researcher used Ordinary Least Square econometric technique for empirical estimations. The results revealed that agricultural production and economic growth had positive relationship.

Izuchukwu (2011) investigated the contribution of foreign direct investment in agriculture, governmental expenditure on agriculture, domestic savings and the overall effect of agriculture sector on the Nigerian economy. The researcher used time series data from 1986 to 2007 and multiple regression analysis was used for estimations. Final estimation revealed the positive relationship between gross domestic product and agriculture sector (and other independent variables, i.e. domestic saving, foreign direct investment and governmental expenditure on agriculture).

Dethier and Effenberger (2011) theoretically discussed the role of agriculture in the development process and discussed the relationship between agriculture and other economic sectors of developing countries. The study also discussed factors of Green Revolution, which was the foundation of agriculture growth in some developing countries. Agriculture was playing an important role in developing nations, where the large number of labor force to exist. The study examined that agriculture sector had a huge capacity for the reduction of poverty, rural development, high production and stable the food prices in developing countries.

Hai-bing et al (2011) examined the causal relationship between agriculture sector, industrial sector, the services sector and gross domestic product in Bangladesh's economy. Researcher used time series data ranging from 1972 to 2008. Granger causality test was used to examine the causal relationship among major sectors of the economy. The empirical results showed that the long run relationship existed between these three sectors and bidirectional causality was examined between the industrial sector and gross domestic product, agriculture sector and gross domestic product, services and industrial sector. The unidirectional Granger Causality examined from industry to agriculture and gross domestic product to services sector.

Tiwari (2010) examined the dynamic and static causality between the major sectors of the economy and gross domestic product. For empirical findings, researcher used time series data from 1950 to 2009 and targeted country was India. The researcher used the Variance Decomposition framework, Impulse response and Engle Granger techniques for analysis. The results showed that gross domestic product and sectoral income had a long run relationship. Causality results showed that services sector caused gross domestic product and industrial sector, and agriculture sector Granger Cause services sector. Impulse response test results showed that innovation in any sector had a positive impact on gross domestic product, but innovation in agriculture sector had a positive impact on industrial sector and the services sector. The Variance Decomposition test results showed that gross domestic product forecast error of the industrial sector was highest as compare to services and agriculture sector.

Tiffen (2003) examined the relationship between agriculture and non-agriculture sector. For the study interrelationships of rural, agriculture sector and urban, manufacturing and services sector was found. Researcher used time series data from 1960 to 2000 and targeted country was Sub-Saharan Africa. Researcher used tables and graphical presentation for explaining the relationship between agriculture sector and non-agriculture sector. Results showed s-shaped relationship between agricultural and industrial sector through graph.

Mudalige (2008) examined the performance of food and agriculture sector by four different factors (food security, agriculture labor force, agriculture output exports and capital formation). The researcher used time series data from 1970 to 2004 and the study was carried out in Sri Lanka. For empirical estimations researcher used multiple regression analysis and tested the Myint hypotheses. The empirical results suggested that food security, capital formation, agriculture, labor force and agriculture trade performance was satisfactory and that moved towards economic development in Sri Lanka. All these factors (agriculture labor force, agriculture trade, capital formation and food security) were affected positively by food and agriculture sector and satisfied the Myint hypothesis test assumptions.

METHODOLOGY
4.1 Role of Major Sectors in Economic Growth
In reviewed literature different sector of economy were used for analyzing the economic growth of a country. Recently Moyenud din (2015) examined the contribution of three major sectors (agriculture, industrial and services sector) of economy in the economic growth of Bangladesh. He used share of value added in agriculture sector, Share of value added in the industrial sector and share of value added in services sector to determine the economic growth. Qureshi et al (2015) used trade share to gross domestic product, agriculture share to GDP and industrial share to GDP to determine the economic growth in Pakistan. In previous literature many other variables such as, agriculture share, industrial share, services share, trade share, and total population were also used to determine the economic growth. This study uses agriculture growth; industrial growth and services growth to examine the contribution of the agriculture sector on economic growth in Pakistan. This study also uses growth in the labor force (proxy of human capital) and growth in fixed capital formation (proxy of physical capital) because these are important factors of growth theories. The selection of variables and empirical model is constructed considering Moyenuddin (2015), Qureshi et al (2015), O.T (2012), Bing et al (2011) and Mudalige (2008). The main aim of the study is to investigate the contribution of the agriculture sector on economic growth in Pakistan. The study controlled the effect of industrial sectors, the services sector, fixed capital formation and human capital formation in determining the economic growth of Pakistan.

Model

$$GDP_t = f(AGRIG_t, INDG_t, SERG_t, FCFG_t, LFG_t) \qquad (1)$$

Variables Description

Gross Domestic Product = Gross Domestic Product Growth in Percentage (Use as proxy of Economic

Performance)

Agriculture Growth = Annual Percentage Growth of Agriculture Sector

Industrial Growth = Annual Percentage Growth of Industrial Sector

Services Growth = Annual Percentage Growth of Industrial Sector

Growth in Labor Force = Annual Percentage Growth of Labor Supply for Production of Goods and Services (Use as Proxy of Human Capital)

Growth in Fixed Capital Formation = Annual Percentage Growth of Construction of Roads, Hospitals and Purchase of New Machinery Etc. (Use as Proxy of Physical Capital)

All variables are taken in growth form to find the long run relationship between dependent and independent variables.

$$GDPG = \beta_0 + \beta_1 AGRIG + \beta_2 INDG + \beta_3 SERG + \beta_4 FCFG + \beta_5 LFG + e_1 \qquad (2)$$

Where,

GDPG = Growth in Gross Domestic Product

AGRIG = Agriculture Growth

INDG = Industrial Growth

SERG = Services Growth

LFG = Growth in Labor Force

FCFG = Growth in Fixed Capital Formation

In equation 9, gross domestic product used as dependent variable. β_0 is constant term and $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5...$ represents percentage change in dependent variable due to percent change in independent variables. e_1 Represent error term of the model. The sign of $\beta_1, \beta_2, \beta_3, \beta_4, \beta_{5...}$ may be positive or negative, its depending upon the empirical results.

General Formation of ARDL Model

$$\Delta GDPG = \beta_0 + \sum_{i=1}^{p_1} \beta_1 \Delta GDPG_{t-i} + \sum_{i=0}^{p_2} \beta_2 \Delta AGRIG_{t-i} + \sum_{i=0}^{p_3} \beta_3 \Delta INDG_{t-i} + \sum_{i=0}^{p_4} \beta_4 \Delta SERG_{t-i} +$$

$$\sum_{i=0}^{p_5} \beta_5 \Delta FCFG_{t-i} + \sum_{i=0}^{p_6} \beta_6 \Delta LFG_{t-i} +$$

$$\delta_1 GDPG_{t-1} + \delta_2 AGRIG_{t-1} + \delta_3 INDG_{t-1} + \delta_4 SERG_{t-1} + \delta_5 FCFG_{t-1} + \delta_6 LFG_{t-1} + e_1 \qquad (3)$$

Where,

Δ Represents the difference, β_0 represents the constant term, $\beta_{1,} \beta_{2,} \beta_{3,} \beta_{4,} \beta_{5,} \beta_6$ represented the short run coefficients, $\delta_1, \delta_2, \delta_3, \delta_4, \delta_5, \delta_6$ represents the long run coefficients, $p_1, p_2, p_3, p_4, p_5, p_6$ represents the optimal lag length and e_1 represents error term.

For achieving first objective following model has been estimated with the help of ARDL bound testing approach selected on the basis of unit root test results.

Model :

Null Hypothesis:

$$H_0 : \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = 0$$

Alternative Hypothesis:

$$H_1 : \delta_1 \neq 0, \delta_2 \neq 0, \delta_3 \neq 0, \delta_4 \neq 0, \delta_5 \neq 0, \delta_6 \neq 0$$

Long Run Model

$$GDPG = \beta_0 + \psi_1 \sum_{i=1}^{p_1} GDPG_{t-i} + \psi_2 \sum_{i=0}^{p_2} AGRIG_{t-i} + \psi_3 \sum_{i=0}^{p_3} INDG_{t-i} + \psi_4 \sum_{i=0}^{p_4} SERG_{t-i} +$$

$$\psi_5 \sum_{i=0}^{p_5} FCFG_{t-i} + \psi_6 \sum_{i=0}^{p_6} LFG_{t-i} + e_1 \qquad (4)$$

Short Run Model

$$\Delta GDPG = \beta_0 + \varphi_0(ECM_{t-1}) + \sum_{i=1}^{r} \beta_1 GDPG_{t-i} + \sum_{i=0}^{s} \beta_2 \Delta AGRIG_{t-i} + \sum_{i=0}^{t} \beta_3 \Delta INDG_{t-i} +$$

$$\sum_{i=0}^{u} \beta_4 \Delta SERG_{t-i} + \sum_{i=0}^{v} \beta_5 \Delta FCFG_{t-i} + \sum_{i=0}^{w} \beta_6 \Delta LFG_{t-i} + v_1 \tag{5}$$

4.2 Auto Regressive Distribution Lag Technique for Model

Augmented Dicky Fuller (ADF) and Philips Perron (PP) results are given in table 4.1 and table 4.2 show the different order of integration I (0) and I (1) for equation 10. ARDL procedure is applied to equation 3. In the first step of ARDL it is important to select the appropriate lag length of model. To determine the long run relationship bound test performed.

ARDL Bound Test Results

Table 4.3 presents the results of ARDL bound test. Null hypothesis of the test states that there exists no long run relationship. The value of F-Statistic (6.79) is greater than the upper bound critical value at 5 percent (3.79) and at 10 percent (3.35). So, the null hypothesis can be rejected and it can be concluded that there exists long-run relationship.

Graph Criteria for Lag Selection for Model

Akaike Information criteria used for examining the appropriate lag length. The figure 4.1 shows the top twenty models selected on the basis of Akike Information Criteria. From these twenty models, the model with lowest value of AIC, e.g. ARDL (1, 1, 1, 1, 1,1), is selected.

Long Run and Short Run Results for Model

Previous results of bound test show that there exist long-run relationship between economic growth and agriculture growth.

Table 4.4 presents the results of Error correction model which shows the speed of adjustment towards equilibrium; it implies a specified adjustment from disequilibrium towards equilibrium after a short run shock. The error correction value is -0.77 which shows that in each period 77 percent disequilibrium is adjusted in each time period.

Table 4.5 presents the long-run results showed that growth in fixed capital formation, growth in agriculture, growth in industrial, growth in services and growth in labor force have positive impact overall economic growth.

Diagnostic Tests

The results of diagnostic tests are presented in the table given below in table 4.6. The value of R-square shows that the explanatory variables explain a significant variation in dependent variable. The value of Durbin-Watson statistic shows that the model does not have the problem of autocorrelation.

Discussion

In second model, the study tried to explain the impact of agriculture growth on gross domestic product by controlling the effect of industry growth, human capital and physical capital. The results show that agriculture growth has significant impact on gross domestic product. The study results correspond with some previous studies. Moyenuddin (2015) explored the causal relationship between per capita gross domestic product with major sectors of economy such as, agriculture, industrial and services sectors. Tijani et al (2012) estimated that agriculture sector was contributing significantly in gross domestic product (proxy of economic growth). Agriculture sector had a significant and positive relationship with GDP. Gross domestic product had positive and significant long run relationship among these sectors. Bing et al (2011) found the positive long run relationship between gross domestic product and three major sectors of the economy such as, agriculture, industrial and services sector.

Conclusion and Policy Recommendations

The main objective of the study was to examine the major sector's performance impact on economic growth and also found human capital and physical capital impact on economic performance because these are the main factors of growth theories. Researcher used time series data set for empirical estimations. The stationary of data was checked by applying the Argument Dickey fuller and Phillips-Perron test. The results show that growth in services sector stationary at 1st difference and all other variables stationary at level. So, this study applies the Auto Regressive Distribution Lag Model econometric technique to estimate the all the relationship.

The study concluded that agriculture, industrial and services sector have a positive and significant impact on economic growth. On the other hand fixed capital formation (Proxy of Physical capital) and labor force also have the positive and significant relationship to economic growth. The empirical results also explained that the services sector has more contribution in enhancing the economic growth. All these are key factors for enhancing the economic growth of Pakistan. Agriculture and industrial sector have also major contributors of

economic growth.

6.1 Policy Recommendations

- The government should make policies for the betterment of the services sector.
- The government should make free industrial zone areas in the country and give incentives for installing new industries.
- Government should give interventions in labor laws and improve labor wages.
- As agriculture sector is also an important sector for economic growth. So, make policies for improving agriculture machinery which should helpful for enhancing the agriculture growth.
- The government should improve infrastructure in country because physical capital is also important factor for enhancing the economic performance.

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Table 4.1: Argument Dickey Fuller Test Results

Variables Name	**With Intercept**	**With Trend and Intercept**		**With Intercept**	**With Trend and Intercept**
	At Level			**At 1st Difference**	
GDPG	Stationary	Non-Stationary		Stationary	Stationary
AGRIG	Stationary	Stationary		Stationary	Stationary
INDG	Stationary	Stationary		Stationary	Stationary
SERG	Non-Stationary	Non-Stationary		Stationary	Stationary
FCFG	Stationary	Stationary		Stationary	Stationary
LFG	Stationary	Stationary		Stationary	Stationary

Table 4.2: Phillips-Perron Test Results

Variables Name	**With Intercept**	**With Trend and Intercept**		**With Intercept**	**With Trend and Intercept**
	At Level			**At 1st Difference**	
GDPG	Stationary	Non-Stationary		Stationary	Stationary
AGRIG	Stationary	Stationary		Stationary	Stationary
INDG	Stationary	Stationary		Stationary	Stationary
SERG	Non-Stationary	Non-Stationary		Stationary	Stationary
FCFG	Stationary	Stationary		Stationary	Stationary
LFG	Stationary	Stationary		Stationary	Stationary

Table 4.3: ARDL Bound Test Results

ARDL Bounds Test		
Null Hypothesis: No long-run Relationship Exist		
Test Statistics	Value	K
F-Statistics	6.7993	5
Critical Value Bounds		
Significance	I (0) Lower Bound	I (1) Upper Bound
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

Table 4.4: ARDL Short-Run Results

ARDL Short-run and Long-run Form
Dependent Variable: GDPG
Selected Model: ARDL (1,1,1,1,1,1)
Sample: 1980-2015

Short-Run Coefficient				
Variable	Coefficient	Std. Error	T-Statistics	Prob-Value
D(FCFG)	0.0390	0.0158	2.4670	0.0215
D(AGRIG)	0.2472	0.0191	12.9100	0.0000
D(INDG)	0.2207	0.0192	11.4821	0.0000
D(SERG)	0.5539	0.0560	9.8558	0.0000
D(LFG)	0.1467	0.0454	3.2286	0.0037
CointEq(-1)	-0.7704	0.1536	-5.0139	0.0000

Table 4.5: ARDL Long-Run Results

Long-Run Coefficient				
Variable	Coefficient	Std. Error	T-Statistics	Prob-Value
FCFG	0.1062	0.0346	3.0690	0.0054
AGRIG	0.2122	0.0394	5.3752	0.0000
INDG	0.2004	0.0380	5.2671	0.0000
SERG	0.4397	0.0967	4.5438	0.0001
LFG	0.3664	0.1003	3.6522	0.0013
C	-0.5392	0.4785	-1.1267	0.2715

Table 4.6: Diagnostic Test Results

Method: ARDL
Dependent Variable: GDPG
Maximum Dependent Lag: 1 lag (Automatic selection)
Dynamic Regressors (1 lag automatic)
Model Selection Method: Akaike Info Criterion (AIC)
Selected Model: ARDL (1,1,1,1,1,1,)
Sample: 1980-2015

R-Squared	0.9820
Adjusted R-Squared	0.9735
F-Statistics	114.6080
Prob (F-Statistics)	0.0000
Durbin-Watson Statistic	1.8427

Figure 4.1: Akaike Information Criteria

Akaike Information Criteria (top 20 models)
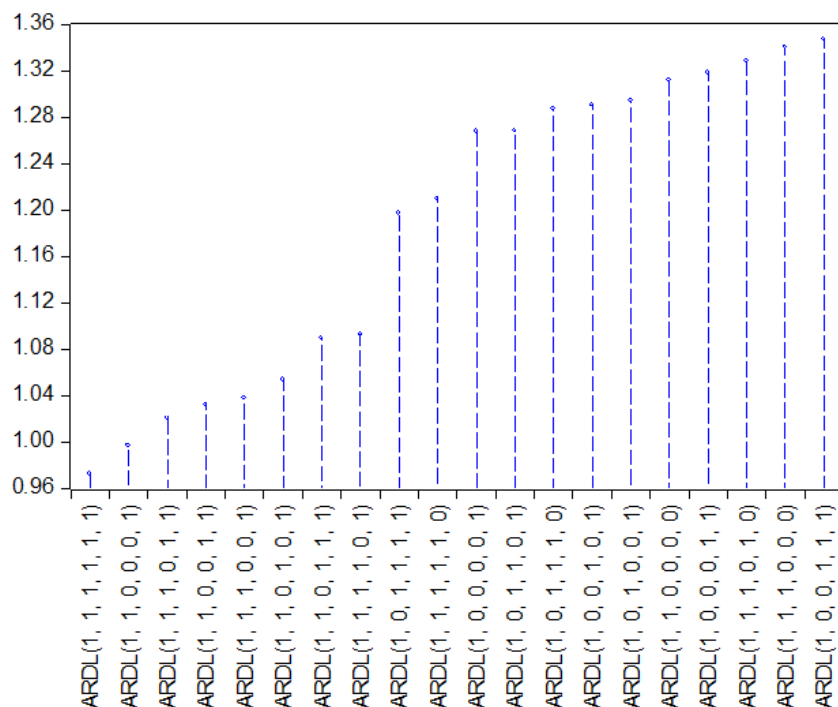
APPENDIX:

ADF Results										
Variables Names	Statistics	Critical Value			Prob Value	Statistics	Critical Value			Prob Value
	With Intercept	1%	5%	10%		With Trend and Intercept	1%	5%	10%	
At Level										
GDPG	-3.606079	-3.632900	-2.948404	-2.612874	0.0107	-3.836289	-4.243644	-3.544284	-3.204699	0.0262
AGRIG	-7.661925	-3.632900	-2.948404	-2.612874	0.0000	-7.950257	-4.243644	-3.544284	-3.204699	0.0000
INDG	-4.218603	-3.632900	-2.948404	-2.612874	0.0022	-4.602883	-4.243644	-3.544284	-3.204699	0.0041
SERG	-2.810110	-3.632900	-2.948404	-2.612874	0.0671	-3.106418	-4.243644	-3.544284	-3.204699	0.1410
FCFG	-4.523979	-3.632900	-2.948404	-2.612874	0.0009	-4.855673	-4.243644	-3.544284	-3.204699	0.0021
LFG	-6.516495	-3.632900	-2.948404	-2.612874	0.0000	-6.964223	-4.243644	-3.544284	-3.204699	0.0000
At 1st difference										
GDPG	-7.923670	-3.639407	-2.951125	-2.614300	0.0000	-7.802431	-4.252879	-3.548490	-3.207094	0.0000
AGRIG	-6.982301	-3.653730	-2.957110	-2.617434	0.0000	-6.859843	-4.273277	-3.557759	-3.212361	0.0000
INDG	-7.128776	-3.646342	-2.954021	-2.615817	0.0000	-7.028494	-4.262735	-3.552973	-3.209642	0.0000
SERG	-6.464977	-3.639407	-2.951125	-2.614300	0.0000	-6.362259	-4.252879	-3.548490	-3.207094	0.0000
FCFG	-8.579239	-3.639407	-2.951125	-2.614300	0.0000	-8.440984	-4.252879	-3.548490	-3.207094	0.0000
LFG	-8.753907	-3.646342	-2.954021	-2.615817	0.0000	-8.656211	-4.262735	-3.552973	-3.209642	0.0000
Phillips-Perron Results										
Variables Names	Statistics	Critical Value			Prob Value	Statistics	Critical Value			Prob Value
	With Intercept	1%	5%	10%		With Trend and Intercept	1%	5%	10%	
At Level										
GDPG	-3.612398	-3.632900	-2.948404	-2.612874	0.0105	-3.871265	-4.243644	-3.544284	-3.204699	0.0242
AGRIG	-7.903980	-3.632900	-2.948404	-2.612874	0.0000	-18.38883	-4.252879	-3.548490	-3.207094	0.0000
INDG	-4.217372	-3.632900	-2.948404	-2.612874	0.0022	-4.571896	-4.243644	-3.544284	-3.204699	0.0044
SERG	-2.852370	-3.632900	-2.948404	-2.612874	0.0614	-3.173884	-4.243644	-3.544284	-3.204699	0.1061
FCFG	-4.532337	-3.632900	-2.948404	-2.612874	0.0009	-4.845897	-4.243644	-3.544284	-3.204699	0.0022
LFG	-6.510565	-3.632900	-2.948404	-2.612874	0.0000	-6.905760	-4.243644	-3.544284	-3.204699	0.0000
At 1st difference										
GDPG	-12.58962	-3.639407	-2.951125	-2.614300	0.0000	-12.47813	-4.252879	-3.548490	-3.207094	0.0000
AGRIG	-31.45609	-3.639407	-2.951125	-2.614300	0.0001	-30.66980	-4.252879	-3.548490	-3.207094	0.0000
INDG	-9.596577	-3.639407	-2.951125	-2.614300	0.0000	-9.436476	-4.252879	-3.548490	-3.207094	0.0000
SERG	-7.690665	-3.639407	-2.951125	-2.614300	0.0000	-7.585751	-4.252879	-3.548490	-3.207094	0.0000
FCFG	-15.42539	-3.639407	-2.951125	-2.614300	0.0000	-15.06558	-4.252879	-3.548490	-3.207094	0.0000
LFG	-13.40110	-3.639407	-2.951125	-2.614300	0.0000	-16.05368	-4.252879	-3.548490	-3.207094	0.0000