## Relationship between Export and Economic Growth in Pakistan by Using OIS technique

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### Abstract

The current research investigates the Relationship between Export and Economic Growth in Pakistan by Using OlS technique. Data were collected from various secondary sources. Data is taken from 1990-2012 for Pakistan. Data for Real GDP, Real exports, Labor and Gross capital formation is taken from World Development Indicator. Here Gross capital formation is taken as proxy for Share of investment (SI) in GDP Economist wants to achieve economic stability through different policies. As we want to explore the impact of exports on economy through trade policy, so we construct methodology and variable construction according to exports.

A time series data from 1990 to 2012 is used here. The result based on OLS technique suggests that there is positive relationship between exports and economic growth. But strong effect is from growth to exports and exports to economic growth has smaller role as suggested by empirical results. As theory suggests that outward oriented policies were adopted by many LDCs that lead to ELG and replaced inward or import substitution policies. But this study gives support to the idea that economic growth itself induces trade flows in Pakistan from 1990-2012.

Keywords: Export, Economic Growth, OlS technique

**Introduction:** Send out will be viewed as as an motor for monetary development of a country. A standout amongst the purposes behind the fast development of east asian nations may be their fantastic send out execution What's more it will be because of usage of fare turned arrangements by A percentage for asian nations. Development in fares prompts expand in the incomes about Components of production, which thus builds the interest for enter for further extension clinched alongside generation. Those coming about weight around down home limit from claiming preparation might energize innovative unrest transform What's more venture chances. Fare execution will be a imperative apparatus of employment creation, change of offset for installment position, accelerated monetary development and expand the money level What's more existing standard of the massenet. An and only such growths Might Additionally make diffused abroad through specialized foul aid What's more help. The connection the middle of fares Also eco Growth might a chance to be unidirectional alternately bidirectional. 'Export headed Growth hypothesis' states that send out makes development On taking after way. Firstly, fare advancement incentives and schemes improve fares to prepare that's only the tip of the iceberg products, which thus prompt specialization.

Send out may be recognized Similarly as a motor from claiming monetary development of a organizations in the nation. A standout amongst those purposes behind those fast development for east asian nations may be their phenomenal fare execution. Send out development need point of finer asset allocation, economies of scale formation Also generation efficiency, capital formation, Also vocation era. Distinctive nations indicates distinctive result, Possibly bidirectional or unidirectional relationship for fares Also budgetary development. An extensive numbers for experimental investigations in this zone need centered on the 'causal' association between fares Furthermore budgetary development. Hundreds from claiming papers have been composed on the experimental association between fares What's more development in the secret word two decades in distinctive nations.

For a standout amongst those investigations carried out Toward Quddus What's more Saeed (2005), it might have been investigated that higher rate of fares Growth prompts higher financial development by providing for An fitting channel i. E fare expands pay about element about preparation because of which request for figure about generation expands which thus expands innovative unrest transform Also speculation opportunities, which helps a greater amount handling Also additional fares which prompts monetary development. They utilized Granger causality test for time 1970-2004. Following this model it might have been discovered that sure relationship exist b/w fare Also monetary development.

Likewise Shirazi et. Al (2004) utilized co mix systems for Johansen (1988) What's more Johansen Also Juselius (1990) Also Granger causality test over those 1960 will 2003 period to figure out connection the middle of universal exchange Also Growth with those assistance of import substitution Furthermore fare advancement method to Pak. They found long run unidirectional relationship running from fares should financial development.

Mahmood an Akhtar (1996) likewise examined the same association for time period 1984-1993 Toward utilizing twenty two outside business sectors What's more merchandise arrangement of Pak fares. Those product creation impact might have been negative. It might have been not transformed considerably over those occasion when. Because of fast debasement Furthermore large amount of defilement Pak fares rose best insignificantly. Khalid et. Al (2004) concentrated on the impact of conversion scale instability and fare Growth b/w Pak Also heading adrift profession accomplices for 1991 with 2004 by utilizing co mix Also error-correction systems Furthermore discovered that instability from claiming conversion scale need negative Also critical impacts to Pak, Australia, Newzealand,UK Furthermore us. It indicated long run impact for Australia, uk What's more singapore same time no connection might have been discovered for bangladesh What's more malaysia.

Previously, an additional contemplate Eventually Tom's perusing Mutairi (1993), he investigated that dependent upon upon what amount of Growth for fares help investment improvement. Granger causality test alongside propelled econometric strategies were used to inspect the qualities for time arrangement included. Information might have been taken for 1959-1991. Outcomes need indicated that over pakistan fares need not assumed the part of motor about development. So, lesquerella noteworthy part of fares in the improvement transform of pakistan is dependable for the discoveries for prior investigations for different nations.

Trade will be recognized Similarly as a impetus from claiming monetary development for a nation. Fares continuously those imperative and only profession are acknowledged Concerning illustration essential part about advancement for both Creating Furthermore created countries. A standout amongst those purposes behind those fast development for east asian nations is their phenomenal fare execution. Send out execution will be extremely critical apparatus from claiming vocation creation, change of equalization about installment position, accelerated financial development Also build the salary level Also existing standard of the dominant part. Fares improve monetary development through separate channels/linkages.

1. Those development to fares increments incomes for elements from claiming handling. When pay increases, it builds the interest for inputs for further development On production, because of expand in buying force of the individuals. Those resultant weight ahead household limit enhances mechanical transformation transform Also speculation chances. This enhanced engineering organization Also more financing expands preparation. This thus expands vocation which brings about monetary development. Quddus and Saeed(2005)2. Fares Push delicate and tricky innovations (marketing, creation Furthermore administration expertise) Narayan Furthermore smith (2004) which increments profit for elements for processing (labor, capital) [Grossman Furthermore Helpman (1991); Kim (1998)]. An change On HC (human capital) prompts expansion fares. Likewise HC stock builds the nature from claiming workforce that enhances work profit Furthermore expands the processing of exportable merchandise that brings about budgetary development. 3. The remote trade earned starting with fares may be utilized for imports about capital What's more different middle of the road products which expand generation possibility done a nation which expands development. MacKinnon (1964) Also

Chenery What's more Strout (1966). 4. As stated by send out advancement technique (EP) fare development prompts better asset allotment and it makes economies about scale (Helpman Also Krugman, 1985) Also processing effectiveness (Bhagwati Furthermore Srinivasan, 1979; Krueger, 1980) through mechanical advancement (Grossman and Helpman, 1991), money formation, Furthermore employment era. This the sum prompts budgetary development. 5. Those nations on which fares Push specialization done high-technology; skill-intensive products that experience fast mechanical transformation advancement Also development at the liability for nations that practice Previously, low-technology merchandise. Youthful (1991).

## Model:

This regression line is taken from Panayiotis et.al (2005) study. RGDP =  $\alpha_0 + \alpha_1 REX_t + \alpha_2 SI_t + \alpha_3 L_t + \mu_t$ REX =  $\beta_0 + \beta_1 RGDP_t + \beta_2 SI_t + \beta_3 L_t + u_t$ t = 1,2,...,T Where RGDP= real GDP REX= real exports SI= share of investment in GDP L = number of persons employed. U<sub>t</sub> and  $\mu_t$  = disturbance term.

For obvious reasons it is expected that  $SI_t$  and  $L_t$  are positively correlated with real GDP. On the other hand, Gylfason (1999) found that increases in the share of investment in GDP (SI<sub>t</sub>) are associated with improvements in export performance.

## 3.2.2 Ordinary least square (OLS) technique:

OLS technique is used here to find relationship between exports and economic growth with the help of labor force and investment share in GDP. OLS is used because it is best technique which gives significant results.

## 3.2 Data and Variables:

## 3.2.1. Data Source:

Data is taken from 1990-2012 for Pakistan.

Data for Real GDP, Real exports, Labor and Gross capital formation is taken from **World Development Indicator.** 

Here Gross capital formation is taken as proxy for Share of investment (SI) in GDP

## 3.3.2 Construction and trend of variables:

Economist wants to achieve economic stability through different policies. As we want to explore the impact of exports on economy through trade policy, so we construct methodology and variable construction according to exports.

A time series data from 1990 to 2012 is used here.

The following variables are taken to analyze the impact of exports on economic growth:

## **1. Real Gross domestic product (RGDP):**

It measures economic growth in real terms. It is taken in constant 2005 US\$. The trend and descriptive statistics of economic growth in Pakistan from 1990-2012 is showed in Figure 1.

## **Eexports series:**

Estimation Command: ls lrexports c lrexports(-1)

Included observations: 22						
Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.  * .	.  * .	1	0.194	0.194	0.9461	0.331
.   .	. *  .	2	-0.049	-0.090	1.0090	0.604
.  * .	.  * .	3	0.076	0.109	1.1709	0.760
.* .	. *  .	4	-0.085	-0.137	1.3853	0.847
.* .	. *  .	5	-0.168	-0.114	2.2667	0.811
*** .	*** .	6	-0.403	-0.404	7.6368	0.266
.**  .	. *  .	7	-0.199	-0.067	9.0289	0.251
.* .	.**  .	8	-0.151	-0.227	9.8842	0.273
		9	-0.047	0.045	9.9745	0.353
.  * .		10	0.115	-0.007	10.558	0.393
.  * .	.   .	11	0.090	0.005	10.948	0.448
.  * .	.* .	12	0.105	-0.138	11.536	0.484

Date: 12/28/13 Time: 22:41 Sample: 1990 2012

Series is Stationary for exports at first difference.

Labor series:

Estimation Command:

ls llabor c llabor(-1)

Date: 12/28/13 Time: 22:58 Sample: 1990 2012 Included observations: 22

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.  * .	.  * .	1	0.067	0.067	0.1127	0.737
		2	0.006	0.001	0.1136	0.945
	.   .	3	0.026	0.026	0.1330	0.988
.* .	.* .	4	-0.152	-0.156	0.8106	0.937
.* .	. *  .	5	-0.086	-0.067	1.0416	0.959
.  * .	.  * .	6	0.070	0.083	1.2049	0.977
	.   .	7	0.023	0.024	1.2228	0.990
	. *  .	8	-0.049	-0.075	1.3145	0.995
.  * .	.  * .	9	0.094	0.076	1.6760	0.996
.* .	. *  .	10	-0.163	-0.165	2.8491	0.985
.**  .	$\cdot^{**}$ .	11	-0.287	-0.263	6.7926	0.816
	<u>·</u>   ·	_12	-0.029	-0.020	6.8385	0.868

Series is stationary for labor at first difference. **Gcap series:** 

Estimation Command:

ls lgcap c lgcap(-1)

Date: 12/28/13 Time: 23:06 Sample: 1990 2012 Included observations: 22

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
.  * .	.  * .	1	0.090	0.090	0.2027	0.653
		2	0.037	0.029	0.2384	0.888
.   .	.* .	3	-0.056	-0.063	0.3268	0.955
*** .	***  .	4	-0.334	-0.328	3.5913	0.464
.   .	.  * .	5	0.045	0.114	3.6534	0.600
.**  .	.**  .	6	-0.244	-0.268	5.6238	0.467
$\cdot^{**}$ ·	.**  .	7	-0.194	-0.217	6.9535	0.434
. *  .	.* .	8	-0.080	-0.178	7.1951	0.516
. *  .	.* .	9	-0.128	-0.124	7.8567	0.549
.  * .	.* .	10	0.132	-0.095	8.6255	0.568
.   .	$\cdot *   \cdot  $	11	0.063	-0.111	8.8151	0.639
.   .	.* .	12	0.056	-0.130	8.9823	0.704

Series is stationary for gross capital formation at first difference.

### 1. OLS Technique

### **Hypothesis construction:**

H<sub>0</sub>=insignificant impact (prob>0.1)

H<sub>1</sub>=significant impact (prob<0.1)

If coefficients/ dependent variables have significant impact then  $H_0$  will be rejected, otherwise accepted. **Equation 1:** 

### $DLRGDP = \alpha_0 + \alpha 1DLREX + \alpha_2 DLGCAP + \alpha 3DLLABOR + ut$ <u>Estimation Command:</u> LS DLRGDP C DLREXPORTS DLGCAP DLLABOR

### **Table 1:**

	Variables	Coefficients	Std.Errors	t.Stats	Probability
	С	1.644145	0.691874	2.376366	0.0282
	DLRGDP	0.033522	0.031525	1.063346	0.3010
	DLLABOR	0.953437	0.047734	19.97398	0.0000
	DLGCAP	0.254148	0.055127	4.610211	0.0002

## $\mathbf{R}^2 = 0.996426$

**Equation 2:**   $DLREXPORTS = \alpha_0 + \alpha 1DLRGDP + \alpha_2DLGCAP + \alpha 3DLLABOR + ut$ <u>Estimation Command:</u> LS DLREXPORTS C DLREGDP DLGCAP DLLABOR

	Impact Factor 3.582 Case Studies Journal ISSN (2305-509X) – Volume 6, Issue 4 April-2017								
Table	Table 2:								
	Variables	Coefficients	Std.Errors	t.Stats	Probability				
	С	-12.44975	4.783416	-2.602691	0.0175				
	DLRGDP	1.675577	1.575758	1.063346	0.3010				
	DLLABOR	-0.788518	1.572469	0.501452	0.6218				
	DLGCAP	0.308513	0.562868	0.548108	0.5900				

# $R^2 = 0.892358$

The result based on OLS technique suggests that there is positive relationship between exports and economic growth. But strong effect is from growth to exports and exports to economic growth has smaller role as suggested by empirical results.

As theory suggests that outward oriented policies were adopted by many LDCs that lead to ELG and replaced inward or import substitution policies. But this study gives support to the idea that economic growth itself induces trade flows in Pakistan from 1990-2012.

So it is concluded as well as suggested that both export promotion and import substitution policies may be a good alternative for economic growth and export promotion for Pakistan.

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