Empirical Analysis of Export Performance and its impact on Economy of Pakistan: A Time Series Analysis

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Abstract:
This research investigates the Empirical Analysis of Export Performance and its impact on Economy of Pakistan: A Time Series Analysis It is taken as proxy for share of investment in GDP. It is taken as %age of GDP. Data on real exports is taken in current 2005 US$. The trend and descriptive statistics of defense expenditures in Pakistan from1990-2015.   It was revealed that Pakistan growth rate was 6.3% per annum while other low income countries grew at an average annual rate of 4% in 1980s. The share of exports in GDP increased to 13% in 1990s. This increase was due to different policies taken by Pakistan such as establishment of two export processing zones, rebates on different items, excise and sales tax rebates, and tax relief for exporters etc in mid 1980s. In 1988 Government of Pakistan has also launched macro-economic Adjustment program to improve trade policy, fiscal policy and deregulation process.
Key Words: Empirical Analysis, Economy of Pakistan, Time Series Analysis

Introduction: This brings about economies about scale Furthermore similar playing point. Secondly, expanded fares make a nation unable should import overwhelming hardware Also items which need a certain effect with respect to country's limit. 'Growth driven send out hypothesis' states that Growth prompts fare. Financial development itself enhances fares. It likewise brings about specialization Also makes similar point which further builds fares. In this way it might or might not be workable that bidirectional association exists the middle of fares What's more financial development in a nation. Previously, setting from claiming Pakistan, its execution might have been really remarkable Throughout 1960-1990. Previously, 1960 legislature off send out reward plan which required a certain impact with respect to fares On 1960 [Zaidi (2000)].

Previously, 1990 send out execution might have been seriously influenced What's more it arrived at with a normal Growth rate about 3% for every annum. This diminish might have been because of impositions about endorses. Throughout 2001-04, it once more arrived at should 5. 4% for every annum.

Those principle objective of this study will be with analyze if. Fares headed financial development (ELG) alternately Growth headed fares (GLE) is correct utilizing OLS technobabble.

Area 2 will survey the expositive expression once this topic. Area 3 will discuss technique including definitions Also development of information and variables. Area 4 comprises about outcomes What's more discussions, Furthermore At last closing comments What's more arrangement suggestion stated to segment 5.

Literature Review

Abdulnasser (2002) investigated those bidirectional association b/w fares and monetary development for japan utilizing bootstrap reenactment method to time period 1960-99. The bring about shortages didn't help bidirectional association. Best fare development prompts higher eco Growth.

Co reconciliation and Granger-causality tests on information for six european nations starting with white collar of the nineteenth century to 1913 Toward john thornton (1997) discovered blended bring about shortages for at six nations demonstrating to bidirectional relationship best to denmark and Germany.

Panayiotis et. Al (2005) acted for 22 LDCs for 1969–1999 utilizing board unit bases Furthermore board co integrative tests Furthermore found that yield Growth reasons fares Also not the reverse.

Jacint Furthermore Jorda (2004) investigated separate send out parts What's more their time permits relationship with the spanish budgetary development Throughout the twentieth century. They utilized Johansen greatest probability cointegration tests Also discovered that budgetary development strengthens those fare development altogether parts.

Galina What's more Iyigun (2004) tried 84 nations information b/w 1970 Also 1990 through OLS procedure Also found that following regulating to those levels from claiming gdp per-capita, education, openness on remote trade, What's more political and macroeconomic stability, a higher send out substance from claiming skill-intensive products prompts higher per-capita gdp Growth rates.

In turn investigate might have been finished Eventually Tom's perusing Kumar (2003). He indicated those association between fares Furthermore development Toward including FDI, household relative send out costs What's more household request. He utilized concurrent comparison schema Also got the come about about no essential part of FDI. He Additionally discovered sure connection between debasement from claiming rupee & fare demand, certain connection between provincial relative costs & fare supply Also negative the middle of send out supply & Domesticated interest.

Different investigations indicated blended bring about shortages to fares Also budgetary development for those consideration from claiming separate variables to distinctive nations. A large number things were missed depending upon distinctive motivations (Absence about applicable variables, information problems, estimation issues in technobabble etc). Notwithstanding after examining past studies, i need to perceive if talented labor, innovation organization Also legislature strategies bring sure effect once fare and budgetary development in Pakistan.
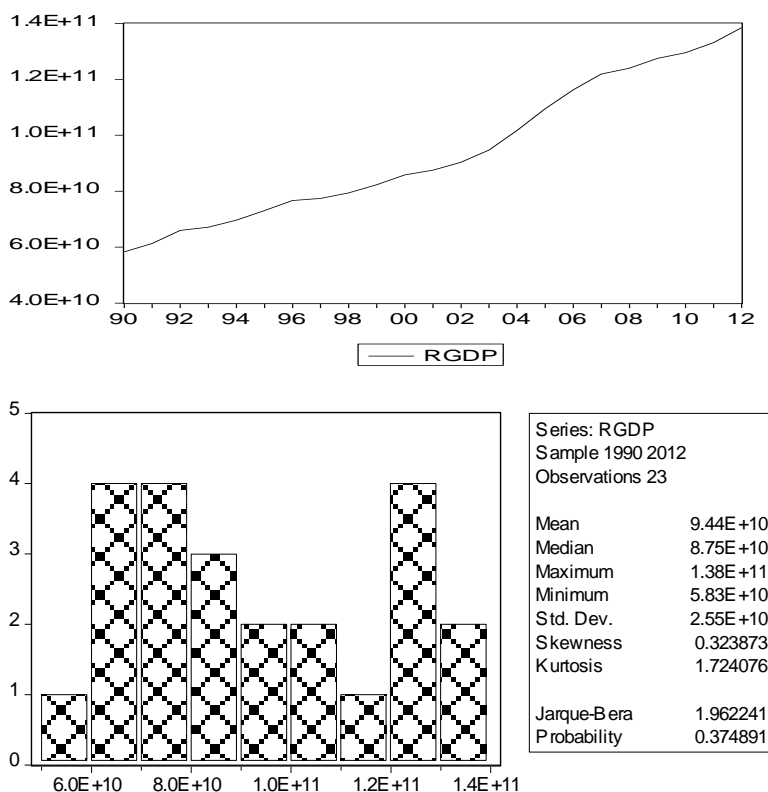
Data Collection Methodology
The objective of the study is to investigate the relationships between exports and economic growth in case of Pakistan. For this purpose OLS technique will be used and will find whether export led growth or growth led exports.
3.2.1Stationarity:
Regression analysis is based on the time serious data and assumed that data is stationary but generally economic time series data is non- stationary and it should be made stationary. There are different methods to make data stationary. One of them is correlogram. Suppose if we want to make one of our variables i.e., RGDP stationary then first difference will be taken if RGDP is non stationary at level.
In this way, we will make all our variables stationary.

Results & Discussions

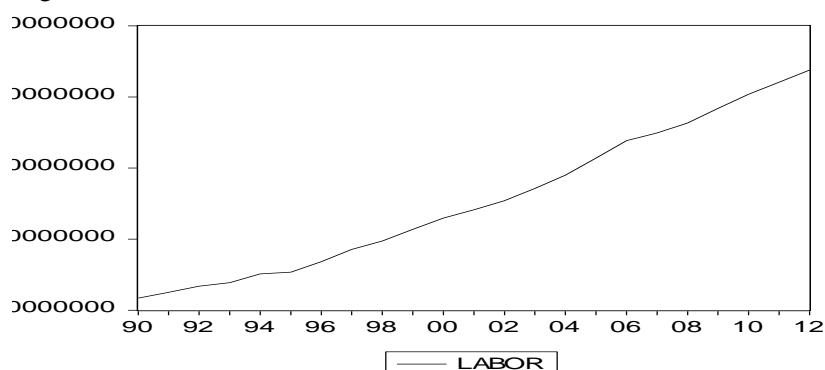| Series: RGDP	
Sample 1990 2012	
Observations 23	
Mean	9.44E+10
Median	8.75E+10
Maximum	1.38E+11
Minimum	5.83E+10
Std. Dev.	2.55E+10
Skewness	0.323873
Kurtosis	1.724076
Jarque-Bera	1.962241
Probability	0.374891

2. Real Exports (Rexports):

Data on real exports is taken in current 2005 US$. The trend and descriptive statistics of defense expenditures in Pakistan from1990-2012 is showed in Figure 2.

Series: REXPORTS	
Sample 1990 2012	
Observations 23	
Mean	1.34E+10
Median	1.13E+10
Maximum	2.09E+10
Minimum	6.45E+09
Std. Dev.	4.58E+09
Skewness	0.277650
Kurtosis	1.530594
Jarque-Bera	2.364700
Probability	0.306558
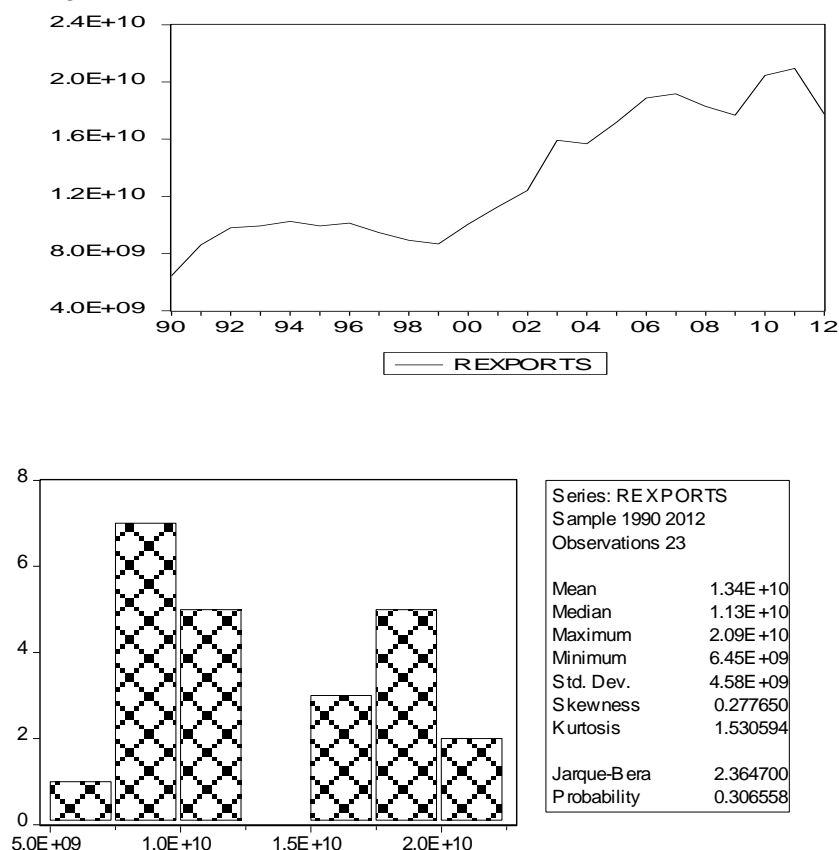
3.Total labor force:

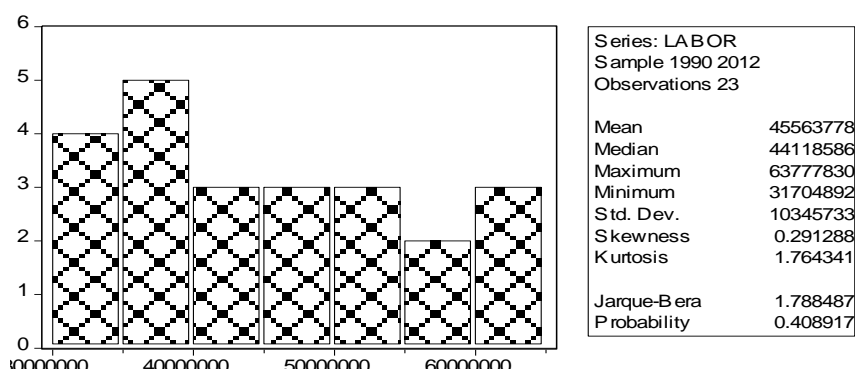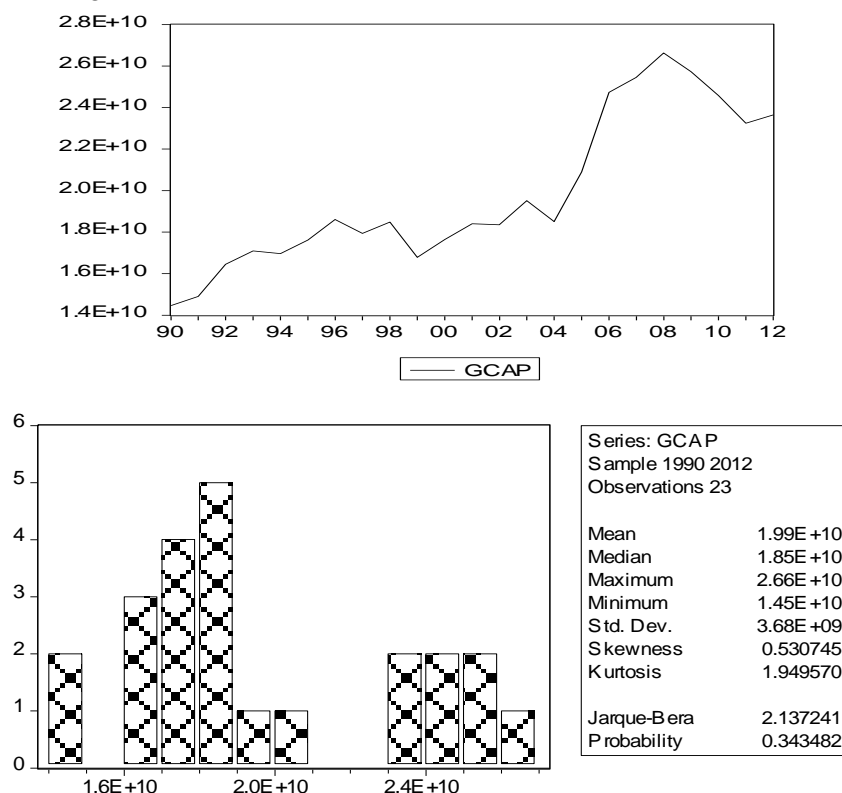Labor force defines number of persons employed in economy. Data on labor force is taken as total labor force. Data on real exports is taken in current 2005 US$. The trend and descriptive statistics of defense expenditures in Pakistan from1990-2012 is showed in Figure 3.

Series: LABOR	
Sample 1990 2012	
Observations 23	
Mean	45563778
Median	44118586
Maximum	63777830
Minimum	31704892
Std. Dev.	10345733
Skewness	0.291288
Kurtosis	1.764341
Jarque-Bera	1.788487
Probability	0.408917

4.Gross capital formation (Gcap): It is taken as proxy for share of investment in GDP. It is taken as %age of GDP. Data on real exports is taken in current 2005 US$. The trend and descriptive statistics of defense expenditures in Pakistan from1990-2012 is showed in Figure 4.

Series: GCAP	
Sample 1990 2012	
Observations 23	
Mean	1.99E+10
Median	1.85E+10
Maximum	2.66E+10
Minimum	1.45E+10
Std. Dev.	3.68E+09
Skewness	0.530745
Kurtosis	1.949570
Jarque-Bera	2.137241
Probability	0.343482

1. Estimations

1. STATIONARITY:

To make data stationary, *correlogram* method is applied. All variables are converted to stationary variables after taking difference. This means that lag of variable is stationary and we say that all series involved in the estimation procedure are I(1).
RGDP series:
Estimation Command:

ls lrgdp c lrgdp(-1)

Date: 12/28/13   Time: 22:55
Sample: 1990 2012
Included observations: 22

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. |***	. |***	1	0.371	0.371	3.4679	0.063
. | .	. *| .	2	0.015	-0.143	3.4737	0.176
. *| .	. *| .	3	-0.147	-0.119	4.0767	0.253
. *| .	. | .	4	-0.091	0.017	4.3210	0.364
***| .	***| .	5	-0.362	-0.412	8.3923	0.136
***| .	. *| .	6	-0.389	-0.181	13.392	0.037
.**| .	. *| .	7	-0.234	-0.093	15.321	0.032
. | .	. *| .	8	-0.032	-0.116	15.361	0.052
. | .	. *| .	9	-0.009	-0.118	15.364	0.081
. | .	. *| .	10	0.008	-0.178	15.367	0.119
. |* .	. *| .	11	0.071	-0.165	15.608	0.156
. |* .	. *| .	12	0.129	-0.139	16.490	0.170

Series is stationary for RGDP at first difference.

2. Results and Discussions

Interpretation of Equation 1:
In above table, OLS has given results from above regression.
Behavior of Real exports:
From table **1** it is concluded that exports has positive impact on economic growth. But this is very weak relationship, only 0.033 (3%) economic growth (RGDP) increases with 1 unit increase in real exports. Also probability shows that due to rejection of H0, export has insignificant impact on economic growth .
Behavior of Labor force:
From table 1 it is find that labor has strong impact on economic growth, that is 0.95 (95%) economic growth is observed with 1 unit increase in labor force. From value of probability, H0 is rejected so it is said that Labor force has significantly strong impact on economic growth.
Behavior of Gross capital formation:
Table 1 shows that gross capital formation (as a proxy of SI) has positive impact on economic growth. Economic growth increases by 0.254 (25%) with 1 unit increase in gross capital formation. It is also verified from the probability that gross capital formation has positively significant impact on economic growth as H0 is rejected.
R^2 interpretation:
R^2 shows overall impact of independent variables (Rexports, labor, gcap) on RGDP. It shows that all three variables have 0.99 or 99% impact on economic growth which is very strong. Theoretically it is also true.
Interpretation of Equation 2:
In table **2** real exports is taken as dependent variable and following results are obtained.
Behavior of Real GDP:
When real exports is dependent variable then result shows that RGDP has positive impact on Real exports, although insignificant (0.3>0.1). So Real exports increase by 1.67 (167%) with 1 unit increase in real exports. It is more than 100 % increase in real exports, so is said that growth causes exports.
Behavior of Labor force:
In Table **2** value of labor shows that it has negative impact on real exports in Pakistan. As labor increases by 1 unit, it decreases real exports by 0.78 (78%). Here labor has highly insignificant (0.6>0.1) impact on real exports, which is also supported by different studies. Gylfason (1999), Reppas and Christopoulos (2005)
Behavior of Gross capital formation:
In table **2**, gross capital formation has positive relationship with real exports. When gross capital formation increases by 1 unit, real exports increases by 0.30 (30%). It is not very strong relation as probability shows insignificant impact of gross capital formation on real exports.
R^2 interpretation:
From table **2**, R^2 is 0.89 or 89%. All three variables explain the real export by 89 % which is positive collectively for Pakistan and it is also supported by theory.

3. Concluding Remarks

The basic objective of this study was to find the relationship between exports and economic growth in Pakistan. Like many other developing countries, in Pakistan exports and economic growth are highly significant.

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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