International Journal of Economics, Commerce and Management
United Kingdom Vol. IV, Issue 3, March 2016
http://ijecm.co.uk/ ISSN 2348 0386

TRADE OPENNESS AND ECONOMIC GROWTH A STUDY FROM DEVELOPED STATES

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Abstract

The paper aims to study the realistic relationship between trade openness and economic growth of different countries. The year we are dealing from 1980 to 2010.For this paper we have worked and maintain secondary data. The methodologies that have been used are related to panel data. Specific test has been taken to diagnose result about the dependency of variable. In the study our results proved that trade openness and economic are significant. The proxies that we used for our variable were as follows. Trade openness is a multi-dimensional concept and hence measures of both trade barriers and trade volumes have been used as proxies for openness and some other proxies of trade openness, we were used such as Import Penetration ratio (IPR): This is a measure of trade intensity calculated as total imports as percentage of GDP. Data is founded from World Development Indicators (WDI). Trade share (TS) % GDP:

This is defined as total trade as percentage of GDP. Data is from world development indicator. Export of goods and services/Export penetration ratio: its means total export as percentage of GDP, Data obtained from world development indicator. For economic growth we were used GDP annual growth as proxy. It means annual percentage growth rate of GDP at market price on constant of local currency.

Keywords: Trade Openness, Economic Growth, Penal Data, Import Penetration Ratio (IPR), Trade Share (TS), Export Penetration Ratio (EPR), World Development Indicator (WDI)

INTRODUCTION

Researchers have employed various econometric tools on different objective and subjective measures of trade openness during the last few decades in order to ascertain a robust relationship between trade openness and economic growth. The compelling message from literature is that indeed there is positive relationship between trade openness and economic growth(Frankel & Romer, 1999). The amazing performances of the Asian Tigers (Singapore, Taiwan, Hong Kong, South Korea) unrestraint the duration and the old store future of the whacking big economies of India and Wed work significant changes in policies especially in the developing world regarding foreign trade.

Lovett (1993) argues that the last fifty years of experience provides sound support to the case of free trade. Various issues, however, still exist in the current literature, which need appropriate approach to handle them, in order to establish an explicit relationship between trade openness and economic growth. . However, the existence of such issues does not indicate that the observed relationship between trade openness and economic growth is delicate Winters). Winters (2004)) states in his study that despite methodological issues, there is no evidence that trade liberalization is harmful for economic growth.

The benefits associated with outward-oriented policies are visible & have been widely accepted by both researchers & owner makers. In general, there is optimism among most economic policy planners in favor of trade openness(Ruggie, 1982). Reviewing the existing literature on trade and growth shows that there is not a clear definition of trade openness. For lots of author's trade openness implicitly refers to trade policy owner orientation and what they have an interest in is to evaluate the impact of trade policy owner or trade liberalization on economic growth. For other authors however, trade openness is a more complex notion, covering not only the trade policy owner orientation of countries but and a set of other domestic policies (such as macroeconomic policies or institutional ones) which altogether make the country more or less outward oriented. In such a case, what the authors have an interest in is to

measure the impact of global policy owner orientation on economic growth. Finally, may adopt an even more global view of trade openness covering not only the policy owner dimension but also all other non-policy factors that clearly have an impact on trade and on the outward orientation of countries. Factors such as geography and infrastructures, for example, do affect trade and the outward orientation of countries, whatever their policy owner orientation is. On the one hand, endogenous growth theory has provided a framework for a positive growth effect of trade through innovation incentives, technology diffusion and knowledge dissemination (Grossman & Helpman, 1993).

However, the theoretical considerations and the empirical evidence whether trade openness accelerates growth is quite ambiguous(Lawrence & Weinstein, 1999). The purpose of this paper is to examine empirically, using a time series econometric approach, the relationship between trade openness and growth of selected countries for the time period 1980 to 2010. The selected countries are Argentina, Australia, Belgium, Chile, Canada, Denmark, Germany, Greece, Israel, Hungary, France, Italy, New Zealand, Norway, Portugal, Singapore, United Kingdom, Sweden and United States, the period before 1970 could not be included because of data limitations for some of the openness indices. The paper uses measures of both trade volume and trade restrictions as a proxy for trade openness. The paper is structured as follows. The next section presents reviews the literature trade openness and economic growth. And the theoretical framework of the econometric model while next one reports the results and conclusion.

LITERATURE REVIEW

Trade openness and economic growth is a quite debated topic within the boom and progress literature. But, this difficulty is some distance from being resolved. Theoretical growth research recommend at quality a completely complex and ambiguous relationship between trade restrictions and boom. The endogenous increase literature has been numerous enough to offer a exceptional array of models in which trade restrictions can lower or increase the worldwide rate of increase(Yanikkaya, 2003). note that if trading companions are uneven countries within the experience that they have got drastically one of a kind technology and endowments, even supposing financial integration increases the global increase fee, it may adversely have an effect on person international locations(Shamsadìni, Moghaddasi, & Kheirandish, 2010). It's far worthwhile to note that the theoretical growth literature has given more attention to the relationship between alternate regulations and boom rather than the connection among exchange volumes and growth. Consequently, the conclusion approximately the connection between alternate barriers and growth can't be immediately applied to the results of changes in

alternate volumes on increase. Even though those standards, change volumes and exchange regulations, are very closely related, their relationship with boom can also differ substantially. This is due to the fact there are numerous other very crucial factors that have an effect on a country's outside area, together with geographical factors, use length, and profits.

In other words, one must be as clear as possible about which openness degree he makes use of and what are the precise mechanisms thru which it impacts the increase (Stulz & Williamson, 2003). we shall speak each openness measure used on this look at later in the section within the theory of worldwide change, the static profits from alternate and losses from exchange restrictions were examined very well. Yet, exchange principle affords little guideline as to the results of global exchange on increase and technical development. On the contrary, the brand new exchange theory makes it cleans that the gains from exchange can rise up from several fundamental assets: differences in comparative advantage and economy-extensive growing returns.

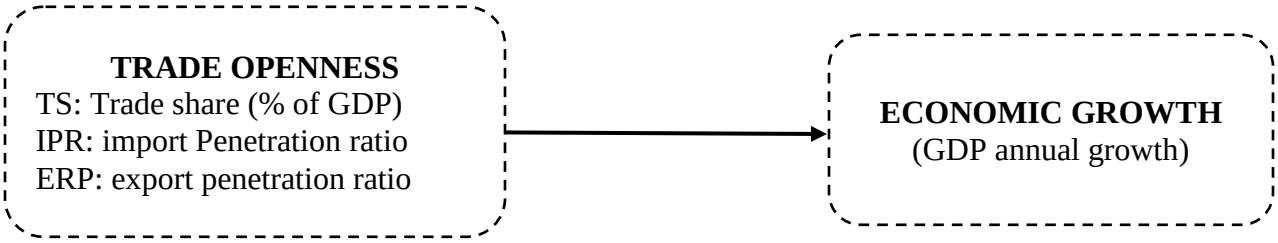
However, over time, the definition of openness has evolved considerably from one extreme to another. Even today it is not unambiguous as to what describes ''openness''(Stiglitz & Charlton, 2005). Kohlberg and Mertens (1989) narrated that how change liberalization may be performed by using employing guidelines that decrease the biases in opposition to the export area. it is even extra striking that according to her definition one us of a will have an open economy with the aid of using a positive exchange price policy in the direction of its export region and on the identical time can use alternate obstacles to protect its uploading sector. Edwards (1993) Stated in his study that "regime may be completely liberalized and yet appoint particularly high price lists in order to encourage import substitution" On the other side Edwards (1993); (Yanikkaya, 2003) stated in his study that he concept of openness, applied to trade policy, could be synonymous with the idea of neutrality. Neutrality means that incentives are impartial between saving a unit of foreign exchange through import substitution and incomes a unit of forex through exports surely, a pretty export oriented financial system won't be neutral on this experience, particularly if it shifts incentives in choose of export production thru gadgets together with export subsidies. It's also feasible for a regime to be impartial on common, and yet interfere in particular sectors. A very good degree of exchange coverage would seize differences between neutral, inward oriented, and export-selling regimes.

These days, the meaning of ''openness'' has end up much like the belief of ''unfastened change'', that could be a change gadget in which all trade distortions are removed(Kiberd, 1997). Consequently, it is critical to apprehend this definition problem because diverse openness measures have extraordinary theoretical implications for boom and distinct linkages with increase. Wong (2005) stated in his study that "the literature on the subject has not always

been successful in dealing with precise definitions of trade regimes, nor has it been able to handle successfully the difficult issue of measuring the type of trade orientation followed by a particular country". A huge range of empirical studies have made use of a variety of cross-united states boom regressions to check endogenous boom theory and the importance of change regulations (Bloom & Van Reenen, 2006).

A great degree of a rustic's openness could be an index that includes all of the barriers that distort global exchange inclusive of common tariff rates and indices of non-tariff limitations. Stiglitz and Charlton (2005) explained that ''trade restrictiveness index'', which in principle incorporates the effects of both tariffs and non-tariff barriers. However, it is not available for a large sample of countries. We divide the present openness measures into 5 classes and overview each category one at a time in the rest of the section. First, the most basic measure of openness is the simple trade shares, which is exports plus imports divided by GDP. "In addition, export shares and import shares in GDP are also used and enter positively in cross-country growth regressions. Our results for these variables are consistent with these existing studies. Hence, we believe that the inclusion of export and import shares in the growth regressions has been an important step towards understanding of the relationship between international trade and growth proposed by the new growth and new trade theories"

Figure 1. Research Framework



RESEARCH METHODOLOGY

The sources of the data collection for the selected set of the major dependent and independent variables are through official websites is world development indicators (WDI). The time period for the study is from the year 1980 to 2010.

Econometric Model

In our Present study analysis, the various measures of economic growth as dependent variables and trade openness as independent variable. The easy way to understand regression equation for the panel data sets of 20 countries over 1980 to 2010 which is quite clear and highly flexible

having distinct slope coefficients and parameters for each period of the study observed our cross sectional units over time series period is as under:

$y = \beta 0 + \beta 1X1 + \beta 2X2 \ldots\ldots \beta NXN$

Where, $y$denotes the dependent variable or respond variable of the present study which is related with economic growth and the x is used for predictor or independent variables and the term B stand for beta.

ANALYSIS AND DISCUSSIONS OF RESULTS

The results describe the statistical analysis and discussion of our report for which we have used descriptive statistics, regression analysis, regression outcomes Housman test and Breusch and Pagan Langrangian multiplier test for random effects (LM) results.

Table 1: Descriptive Statistics

Variable	obs	Mean	Standard deviation	min	Max
GAG	620	2.682735	3.126161	0	21.82889
TS	620	74.60603	70.56195	0	439.6567
IPR	620	37.00597	33.8166	0	209.3877
EPR	620	38.22464	36.87831	0	230.269

Table above describe the outcomes of descriptive statistic of the study. Here we can see that the mean value for trade share (total trade as % of GDP) is maximum which 74.60602901 is and GDP annual growth has a minimum value of mean which is 2.682734625. The value for the standard deviation is min for GDP annual growth which is 3.126160614. The min value for majority of the variables is zero while the maximum value is 439.6566811.

Table 2: Correlation Matrix

	GAG	**TS**	IPR	EPR
GAG	1			
TS	0.3167	1		
	0.0000***			
IPR	0.3225	0.9966	1	
	0.0000***	0.0000***		
EPR	0.3051	0.9941	0.9843	1
	0.0000***	0.0000***	0.0000***	

*, **, *** demonstrate that correlation is significant at 10, 05 and 01 % respectively

Before going for the further analysis it is going obvious to check the level of correlation between the selected set of variables; the problem of multicollinearity. Table above describe the

correlation matrix between all the major variables which were selected for the present study analysis. From the above table it can be seen that the relationship between trade share and GDP is positive and moderate and it is highly significant. IN the next variable the relationship of import with GDP is moderate with trade is good and they show highly highly significant. The relationship of export with GDP is low, trade is high, and with import is also and they all show highly significant. After this we have selected all the variables for the further analysis.

Table 3: Regression Analysis

	SS	Df	MS	MS
Model	659.1519	3	219.7173	219.7173
Residual	5390.261	616	8.750424	8.750424
Total	6049.413	619		

Number of obs = 620

F (3, 616) = 25.11; Prob > F = 0.0000

R-squared = 0.1090

Adj R-squared = 0.1046

Root MSE = 2.9581

Table 4: Regression Outcome

GAG	Coef.	Std. Err.	t	P>|t|	95% Conf.	interval
TS	0.0164	0.048181156	0.340462754	0.733624141	-0.078215	0.11102
IPR	0.04567	0.061771968	0.739373848	0.459961671	-0.075637	0.16698
EPR	-0.0466	0.042947049	-1.084067761	0.278758866	-0.130898	0.03778
cons.	1.54839	0.186579885	8.298812512	6.65553E-16	1.1819817	1.9148

In the above table are the different results of panel data analysis for the dependent variable which TS, IPR, EPR of the currently GAG in selected countries.. The results shows that among all models, the coefficient value of trade openness and economic growth are significant at 05%. These results are showing that all these variables have a significant impact on trade openness and economic growth.

Table 5: Fixed or Random: Housman test Results

	Fixed	Random	difference	S.E.
TS	-.795442	-.0088698	-.0706744	.1937878
IPR	.1684274	.0877418	.0806856	.1919227
EPR	.0282154	-.0360172	.0642326	.1977171

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

Chi2 (3) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 0.65

Prob>chi2 = 0.8849

Housman test Results for fixed or random effect model shows that the value 0.8849 is not less than 0.05 which concludes that we should use the (random effect model). Meaning in the model we will control the effects on variables.

Table 6: Breusch and Pagan Lagrangian Multiplier Test For Random Effects (LM):

Var	Sd	Sqrt(var)
GAG	9.77288	3.126161
E	8.02764	2.833309
U	.9215856	0.9599925

Test: Var (u) = 0

chibar2 (01) = 59.36

Prob > chibar2 = 0.0000

According to result we accept alternative hypothesis as the entities are not zero. The probability outcome is 0.000 so it means there 99% level of confidence that are dependent variables are highly affected by independent variable.

CONCLUSION

From the discussion it could be concluded that trade openness is effected by other factors and is not independent in nature**.** The factors that have major contribution in trade openness are ipr and epr, we get no confirmation that openness is straight and vigorously linked with economic growth in the long run. We further evaluate various individual measures of openness, namely, current openness, real openness, the fraction.

It turns out that our main finding is strong to these alternative measures of openness and none of them is robustly correlated with long-run economic growth. The lack of statistically robust association between trade openness and long-run growth suggest that policymakers should not follow trade-openness-enhancing policies based purely on growth objectives. The data evidence also indicates that economic institutions and macroeconomic uncertainties related to inflation and government consumption are key determinants of long-run economic growth. A failure to go after sound and steady fiscal and monetary policies and to put up good institutions is detrimental to long-term growth prospects.

Employing both current openness and real openness as a dependent variable, we estimate this model by OLS. The link between trade openness and economic growth has been proven to be difficult in analyzing since they exist many studies that contradict each other regarding the positive or negative effect of trade openness on economic growth. However, the majority of these studies advocate positive impact of openness in economic growth.

Considering that this is the first attempt of establishing a causal linkage between trade and GDP per capita growth for this set of countries, the findings are crucial for the current discourse for this region as they underpin the importance of regional and international trade related development.

In spite of the limited size of the sample, the model performs well for this analysis. However we contend that our study provide only a promising step towards developing a more comprehensive empirical research which will capture more variables typical for this issue and also by extending the size of the sample.

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