Trade, Growth and Poverty: A Case Study of South Asian Region

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Abstract

This paper is devoted to explore the relationship between trade, growth and poverty for South Asian Region. Panel data for seven south Asian countries is incorporated for the period of 1960-2014. This time period is further divided into pre and post 1980 periods. Result shows that trade openness raise growth and lowers poverty of the South Asian region during both periods. Increase in Gini worsens average income growth and poverty. Growth of the economies during both periods lowers poverty of the region insignificantly. Increase in unemployment reduces both growth of incomes and poverty. Other variables like government consumption, investment, infrastructure development and indexes of human capital play effective role in promoting growth and reducing poverty of the South Asian region. The results show a significant impact but weak relationship of trade and other factors with economic growth and poverty of the region. It signifies the importance of complementary policies along with openness policies in South Asian economies to improve trade impact over economic growth and poverty of the region to help the South Asian economies in facing the competitive world markets efficiently. Otherwise open market competition may destabilize the economies of the region.

Keywords: Openness, Economic growth, Poverty, South Asian Region
JEL Classification:O40, O15

Introduction

South Asian region is home to more than 5th of the world population and the largest proportion of the world's poor (43%) with varying cultures, languages, ethnic and social norms. It is far behind then other regions of the world (except Sub-Saharan Africa) in terms of the average purchasing power parity (PPP) per capita income. There is a steady decline of poverty in South Asian region since 1981. But, in comparison to other East Asian and Pacific regions this decline is slow and the numbers of poor living here are increasing (Bandhara, 2009). Its internal

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trade is about 5% of its total trade. To follow East Asian region, it has to promote its growth rate. Trade expansion and tariff reduction on reciprocal basis can help the region to grow at a faster rate. After the Second World War, GATT was established to discipline the world trade along with its expansion to raise growth of the world economies. With the passage of time, it is realized that countries with less trade and especially developing countries can't access to become part of the developed markets as most of them are prey to poverty and slow growth. The process of replacing GATT by WTO started with the objective of the expansion of trade to achieve better standard of living with the help of full employment and growing volume of real income (Siddique and Zafar, 2001). Similarly South Asian countries are also opening their economies through agreements like SAPTA, SAFTA and SAARC.

On the basis of per capita growth the developing countries may be categories as more and less globalized (World Bank, 2001). Globalization is also put into investigation in the current period. Following the idea of World Bank the current wave of globalization has been started around 1980's in this paper the panel data of seven South Asian countries-Pakistan, Bangladesh, India, Sri Lanka, Nepal, Bhutan and Maldives-is divided into pre liberal era as 1960-1980 and post liberal era as 1981-2014 to assess the nexus of trade, growth and poverty for the whole South Asian region. Economies of the world are going to follow the new agenda of globalization. This comparison of pre and post 80 period globalization will not only be helpful to analyze the impact of existing trade policy implications but will also provide a guidance regarding future requirements of trade expansion in South Asian region. As South Asian economies have the target of catching up with the development of East Asian economies by facing competitive world markets.

Literature Review

Globalization is considered as an important factor to play a vital role in resolving the problems such as poverty, illiteracy and inequality. Poor and the rich can get the fruits of openness equally (Dollar and Kraay, 2001). Most of the studies (also classical theory) show that openness accelerates growth through efficient resource allocation which promotes productivity that results in a higher real income. According to the endogenous growth theory that has been developed in the past 20 years, openness promotes long run growth through embodied technology, availability of inputs, reduction of networking costs etc. Different cross sectional studies check the relationship between different measures of openness and growth and find a positive association for developing countries (Haddad *et al.* 2012, Bandara, 2009).While some of the studies

show absence of this relationship in the short run (Din *et al.* 2003, Siddiki, 2002).

Poverty is a multidimensional problem and economic growth is considered the most important factor affecting poverty. Examples include infant mortality rate, female to male literacy and average consumption that improve with the increase in per capita income that are the results of poverty. A study of 80 countries show a one to one increase in the average income of the bottom one fifth of the population with increase in the overall growth of the economy (Dollar and Kraay, 2001). Certain other studies also favor the results of positive impact of openness over poverty reduction (Khan and Rashid, 2010, Aisbett, 2004). On the other hand and Bhatti (2001) strongly disfavor them and conclude that in the process of growth only those get the benefits who participate in it.

World Development Report (2001) suggests pro-poor growth to reduce poverty level (also Kakwani and Pernia, 2000). Kakwani and Son (2003) even criticized World Bank definition of pro-poor growth and suggest a stronger definition. A summary of several studies show a negative impact of trade on poverty through growth in the short run and a long run positive impact of trade on poverty with the condition of complementary pro-poor-growth policies. Otherwise the impact of trade results in a high income inequality as shown by the study of world after 1980 in the shape of wage inequalities (Berg and Krueger, 2003). In the light of literature we assess and compare this impact of trade over economic situation of the region between pre and post 1980 periods.

Materials

Definition of Variables under Consideration

Variables and Data Sources		
Variables	Description	Data Sources
Trade Openness	Exports and imports as percentage of GDP constant 2005,international $	WDI (2015)
Economic Growth	Real Per Capita GDP growth as dependent variable	PWT 8 version and WDI (2015)
Gini	Gini index as a measure of inequality	Povcal Net and WDI (2015)
Government consumption	Consumption Share of PPP Converted GDP Per Capita at 2005 constant prices	PWT, 8 version
Population Growth	Population growth	WDI (2015)
Investment	Investment Share of PPP Converted GDP Per Capita at 2005 constant prices	PWT, 8 version
Secondary school En	Secondary school enrollment ratio	WDI (2015)
Life Expectancy at Birth	Life expectancy at birth	WDI (2015)
Literacy Ratio	Literacy ratio	WDI (2015)
Inflation Rate	Growth of GDP deflator	WDI (2015)
Skilled Labor	Combining the measures of secondary school enrollment and employment	WDI (2015)
Unemployment	Unemployed persons as a percentage of labor force	WDI (2015)
Infrastructure Development	Combining the measures of fixed line and mobile phone subscribers (per 1,000 people) along with roads network	WDI (2015)
Poverty	Absolute poverty line, $2.25 per day considered as at about $2 per day poverty line based on purchasing power parity (PPP) in 2005 international prices	Povcal Net, and WDI (2015)

Econometric Technique

The impact of trade poverty and economic growth in selected Asian countries has been analyzed by applying Pooled Ordinary Least Square (OLS) method. This involves estimating a single equation on all the data collectively such that all data set for growth is stacked into a single column containing all cross – sectional and time series observation and the same for all explanatory variables. The study use Breush Pagan Lagrange Multiplier (LM) test. The results of B&P test imply that there is no significant difference across countries. We used the pooled estimation method because it assumes homogeneity among the cross sections and over time. Therefore pooled OLS is appropriate estimation technique for regression analysis.

Results and Discussion

Summery statistics of the key variables are presented in table below. Mean and corresponding standard deviations of the important variables are reported in the following table.

Table 1: Summary Statistics of Variables under Consideration

Variable	Mean	Std. Dev	Minimum	Maximum
GDPPC	2.51	2.28	-2.24	8.36
GINI	38.50	3.54	29.00	47.30
INF	9.23	6.22	-1.31	25.43
KG	10.22	1.78	7.07	14.51
OP	40.94	30.21	27.32	174.00
POV	-0.009	0.02	-0.11	0,036
INFSD	14.82	21.55	2.75	119.11
KI	23.10	4.71	15.44	35.31
LE	58.51	5.41	46.64	66.01
LIT	31.99	15.39	8.34	64.58
POP	2.61	0.55	1.35	3.43
SKL	29.01	20.39	5.98	67.98
UNE	4.43	1.42	2.26	7.80

Source: World Bank World Development Indicator (2014).

The value of standard deviation shows the variation/dispersion from mean. Low standard deviation indicates that the data points tend to be very close to mean and high standard deviation indicates that the data points are spread out over a large range of values. While standard deviation results show that our data do not have the problem of high dispersion.

Empirical Results show that openness has positive association with average income growth of the South Asian region. This relationship is insignificant during pre-1980 period while significant in post-1980 period at 10%. It showed that in the globalized period openness affect growth in south Asian region. It supports the results of Dowrick and Jane (2004), Pasha and Palanivel (2003), Din *et al,* (2003) and Kemal, *et al,* (2001).In poverty equation trade openness lowers poverty of the South Asian region significantly. But its role in lowering poverty of the region has been reduced in the post 80 periods although still significant. It emphasizes the impact of trade liberalization in raising the economic growth as well as welfare situation of the region but points out the role of complementary policies along with trade openness policies so that the fruits of openness can be captured by the poor class also. Benefits of openness can be captured through supportive policies as trade is one of the many determinants of growth.

Unequal distribution may cause lower economic growth and lower the income shares of the people, which results in increased poverty. The results of this paper confirm this situation during both periods significantly. But its impact is stronger over poverty as compared to growth. A good symptom is that during post 1980 periods its impact is weaker over both growth and poverty. It reflects the situation when equal

opportunities are not provided to the people; share of openness is accrued only by the opportunists which is harmful for the future of the economies. Thus protecting poor from the adverse effects of openness it is necessary to take complementary measures to accrue benefits of openness to the poor class also. It needs to be realized by the relevant governments of the South Asian region to adopt complementary policies along with openness according to their economic situation that raise the welfare of all groups of the societies equally. It is supported by the conclusion of Pasha and Palanivel (2003). So the benefits accrue particularly to the well-off rather than the poor households. It suggests complementary measures to improve the anti-poverty policy regimes in the region (Chishti and Malik, 2001).

Openness raises investment flow, which is more productive for the local firms. It encourages local firms to get expertise to compete with the outside world which helps them to raise their labor productivity. Results of growth equations for both pre and post liberalization period show a positive association of investment and income growth in the South Asian region. This relationship of investment and economic growth has been improved in the post liberal era along with its impact as its significance factor show. It raises the need for adopting required planned complementary investment policies along with openness as otherwise it will be useless than become beneficial for the entire region.

Development of transport and communication sector plays a vital role in the economic development of a country. During pre-1980period, infrastructure development reduces growth of the region significantly as growth equations of table 1 show. Results of poverty equations show that in pre 80 period transport and communication sector development raises poverty as it costs much that results in affecting the welfare of the people in the short run. Results of post liberal era show its positive impact on poverty as it reduces poverty of the South Asian region. But this relationship is very weak in post 80 period which shows that with the passage of time and increased requirement, the required relevant policies of transport and communication sector were not been planned to be adopted. New agenda of openness requires provision of strong basic infrastructure otherwise South Asian region will not be able to compete with the outside world. For this purpose there is need to plan the required infrastructure development policies supportive for opening up boundaries of trade for the world.

Human capital index is proxy here as Population growth, literacy ratio, skilled labor, unemployment and life expectancy at birth. According to economic theory, increased growth rate of population of a developing country lowers its economic growth rate. It is proved from our results of both equations. Our results of poverty equation show that growth of population raises poverty of the region during both periods.

This impact is stronger and significant in pre 1980 period but this relationship has become weaker in the post liberal era. It implies that before 1980, openness and other development policies were not so effective to support the increasing population to such an extent. Although with the passage of time attention is given to better policies but they still need much effective planning to absorb easily the emerging issues relating to expanded trade (Arif and Shujaat, 2012).

Education is an important factor of economic growth. Literacy has a negative impact over growth of the region during pre-1980 period as our results of growth equations show. Literacy ratio is playing a significant role in lowering poverty of the South Asian region as shown by results of poverty equation. But this relationship is insignificant in the post 1980 period. It means that existing education policies are not sufficient for the region to overcome the problems faced in a competitive world. Those education policies are required that support the competitive requirements of the open trade to capture its benefits for their poor population specifically (Dowrick and Jane 2004, Siddiki 2002).

Results show a positive relationship of skilled labor with average income growth of the economies of the region during both periods significantly. This impact has been improved in the post 1980 period. In developing countries like South Asian region although very limited resources are allocated for promoting skilled labor, even then the results reflect its important impact. It necessitates the provision of training and skill opportunities in the region to such extent that the growing requirements of opening of markets be tackled easily (Abbas 2000).

Health is proxy by different variables but in this study Life expectancy at birth is used to proxy human capital index in the context of health. It is considered a very basic and sensitive proxy of health that if an economic situation is at such a weak level that it is unable to provide very basic support to their children for their survival then it requires special economic planning starting from the initial stage of basic requirement of life. Our results show that rise in life expectancy at birth lowers poverty of the South Asian region significantly (Table-1, poverty equation). Results show a good relationship. It signifies the role of health in competing world trade to the extent to play a vital role in affecting poverty of the region.

Unemployment lowers income growth of the South Asian region during both periods significantly as growth equations show. Its impact is weaker in the post liberal era as compared to the pre 80 period results. Openness has a greater advantage in this respect that it provides wider employment opportunities. There needs to adopt effective employment policies that channelize the employment opportunities according to the required economic expansion of open trade.

Real income growth lowers poverty during both periods as growth equation shows which is according to the theory. But in case of

South Asian region here its impact is weak during pre-1980period while improved in the post 1980 period, still not significant. It shows the absence of pro-poor and pro-growth policies which are the requirement of the time especially for the South Asian region as it is opening up its markets (Bhatti, 2001).

Empirical Findings

Table 2: Dependent variable: GDP Growth Annual (%) Pooled OLS

Variables	Model-I (growth eq) Pre-1980	Post -1980	Model-II (poverty eq) Pre-1980	Post-1980
TO_{it}	0.01	0.06***	-0.1*	-0.03*
	(0.8)	(1.7)	(8.9)	(5.8)
$PCIG_{it}$			-0.03	-0.04
			(1.1)	(1.6)
$GINI_{it}$	-0.2	-0.01	0.4	0.2
	(4.4)*	(2.2)*	(1.0)*	(7.6)*
INV_{it}	0.01	0.02	0.07	0.06
	(0.2)	(0.6)	(2.7)*	(3.1)*
$TRAN_{it}$	-0.02	0.01	0.1	-0.001
	(8.8)*	(1.7)***	(4.8)*	(0.4)
GC_{it}	--------	-0.1	-------	-0.1
		(0.6)		(1.7)
IR_{it}	-0.05	-0.06	0.04	0.01
	(1.5)	(1.8)***	(1.9)*	(0.7)
PG_{it}	-0.2	-------	0.9	0.2
	(1.4)		(3.6)*	(1.1)
LR_{it}	-0.05	0.02	-0.1	-0.1
	(1.4)	(0.91)	(6.2)*	(5.6)*
SL_{it}	0.04	0.05	-0.05	-0.04
	(2.6)*	(4.5)*	(4.1)*	(4.7)*
LE_{it}	----	-----	0.96	-0.3
			(3.8)*	(7.5)*
UN_{it}	-1.1(4.4)*	-0.1(1.8)**	-----	-----
R- Square	0.62	0.52	0.69	0.65
B & P LM Test	2.67	2.18	3.72	1.95
	(0.102)	(0.215)	(0.121)	(0.305)

*Note: ***, **, * shows significance at 1 %, 5 % and 10 % respectively, P-values are in Parentheses.*

Conclusions and Policy Recommendations

This study was designed to analyze the trade growth and poverty troika. The results suggest that Openness shows a positive impact over growth and poverty of the region but its significant result and lower share suggests complementary macroeconomic policies along with pro-poor openness policies in all countries of the region according to their relative circumstances. Furthermore During both periods growth reduces poverty insignificantly. It highlights the adoption of pro poor growth policies

with openness policies to eliminate poverty in the region. It is also concluded that higher income gap worsens average income growth and poverty situation. Thus openness without complementary policies worsens income distribution and enhances poverty Investment, consumption and infrastructure development has positive impact on economic growth and poverty of the South Asian region. Their significant relationship emphasizes the support of these policies for complementing openness policies to capture the benefits of liberalization effectively for the region. There is a significant impact of population growth, education, health and skill enhancing trainings over growth and poverty of the region. Investment in human capital can not only complement but also speed up the effectiveness of openness to help the South Asian region catch up the East Asian economic development.

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