

Effects of Trade Liberalization on Economic Growth of Pakistan

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Abstract

Trade policy is gaining an increasing importance in developing economies as a strategy for economic development. The rapidly growing world market offers. Realizing the importance of trade policy as a tool for economic development, the government of Pakistan began to restructure its trade policy from a protectionist regime to a more liberalized regime with the introduction of wide ranging structural reforms in late 1980s. Successive trade policies attempted to diversify the export base and to improve export infrastructure and to increase exports. This research explores the impact of trade liberalization on the economic performance of trade in Pakistan for the period 1977-2008. By using multiple linear regression estimation technique the aggregate production function for Pakistani economy is estimated. The findings indicate that the trade liberalization is having positive impact on the growth of economy. One interesting finding of this research is negative but statistically significant coefficient for Foreign Direct Investment in Pakistan. Extensive privatization of state owned enterprises could be one major reason behind this negative sign. This research suggests the continuation of trade liberalization policy for long term sustainable economic growth of the country.

Keywords: Trade liberalization, Imports substitution, Economic growth, Pakistan

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INTRODUCTION

Trade has become an increasingly important global economic activity, with annual trade volumes increasing sixteen fold over the last fifty years and the ratio of world exports to Gross Domestic Product (GDP) now approaching twenty percent. Trade policy is gaining an increasing importance in developing economies as a strategy for economic development. The rapidly growing world market offers a window of opportunity for the developing world to accelerate their industrialization. With the increasing size of the world market and acceleration of international trade, developing countries throughout the world have been drawing foreign direct investment and technology transfer, and increasing employment and income growth (Frankel et al., 1999; Hinkel et al., 1999).

Realizing the importance of trade policy as a tool for economic development, the government of Pakistan began to restructure its trade policy from a protectionist regime to a more liberalized regime with the introduction of wide ranging structural reforms in late 1980s. Successive trade policies attempted to diversify the export base and to improve export infrastructure and to increase exports. The purpose of study is to explore the impact of this important policy change on the process of industrialization and economic growth. The early years of Pakistan's economy can be characterized by a weak industrial base, dominance of the agriculture sector, lack of well-organized infrastructure, and above all eco-political instability. The main objective of the policies of those years was to strengthen the industrial base. To this end, Pakistan adopted a restricted trade regime and protected its

domestic industries with high tariff and non-tariff barriers. The period of the sixties was the period in which the industrial base was laid and in which rapid expansion of large scale manufacturing industries started in the country. While the highly protected trade regime remained effective in this period, some additional policies were introduced to encourage industrial exports from the country, like an overvalued exchange rate, export bonuses, preferential credit access to industries with export potential and automatic renewal of import licenses. Consequently, both industrial production and exports registered a reasonable increase during the 1960s. However, industrial expansion did not continue at the same rate in the following decade of seventies. In fact, it suffered a setback in the following decade due to the nationalization of industries (Narayan et al., 2004; Onafowora et al., 1998). Although the government nationalized different types of industries in the country, it took three additional trade liberalization measures to encourage exports during this period, these were:

- Devaluation of the Pakistani Rupee by 57% in 1972.
- Elimination of the export bonus scheme.
- The discontinuation of restrictive licensing scheme.

These steps stimulated exports especially of manufactured products. Substantial trade liberalization has taken place in Pakistan since the late 1980s at a pace that has been accelerating over time. Import taxes have been reduced, the Statutory Regulatory Orders (SROs) have now been mostly withdrawn and Non-Tariff Barriers (NTBs) have been largely dismantled. In particular, the average tariff rate has declined sharply from 77 percent in 1985 to about 17 percent. Although trade policies were modified continuously in Pakistan, changes of particular significance were made after the formulation of the new trade policy in 1987. After the incorporation of the other changes, the trade policy led, inter alia, to a reduction in tariff slabs from 17 to 10 and introduction of a uniform tax in place of commodity based

sales taxes. In fact, the government focused in this decade mainly on enhancing the role of private sector in the economy, increasing the competitiveness and efficiency of the domestic industrial sector, and promoting exports. The specific measures that the government took in pursuance of these objectives, related to the provision of different fiscal incentives such as tax holidays, tariff cuts, and other profit augmenting opportunities to the exporters. The maximum tariff was reduced from 225 percent in 1986-87 to 70 percent in 1994-95. Additionally the number of custom duty slabs were reduced from 13 to 5. Flexible exchange rate system introduced earlier was kept in effect during this decade. The response of economy to trade liberalization policy was mixed, in 1980s the average GDP growth rate was about 6 %, which reduced to 4 % in 1990s and 3.8 % in 2000s. On the other hand, if we analyze the patterns of international trade for the same decades, we can see a relatively different story. In 1980-81 the share of primary and manufactured products was 44 and 45 percent respectively. The share of manufactured products was 78 percent of total exports in 2006-07, while the share of primary products decreased to 11 percent for the same period of time. Likewise, the import of capital goods also increased considerably. It was 28 percent of the total imports in 1980-81, which reached to 36 percent in 2006-07. It is really interesting to see that the aggregate economic performance was relatively slow, reflected by lower GDP growth rates, but for the same period the share of manufactured goods was increased considerably in Pakistani exports. These two contrasting scenarios provide a good justification to analyze the impact of trade liberalization on economic growth. This study is focused to explore the impact of trade liberalization on the economic performance of a country endowed with labor but deficient in capital (Paulino et al., 2004; Rigobon, 2005).

Historical Analysis of Trade Regimes in Pakistan

After the independence in 1947 from British Rule, Pakistan established protectionist trade regime by emphasizing import substitutions as a way to spur the growth of

industrialization. This protectionist trade policy continued for almost three decades, from the 1950s to 70s. Although the protectionist regime proved to be relatively effective in protecting fledgling domestic industries, the lack of foreign competition permitted the Pakistani investors to invest in safe but less efficient industrial sectors such as, automobile manufacturing, electronics, and electrical appliances industries. Consequently, many industries in Pakistan became gradually inefficient and vulnerable to the import substitution regime. It became difficult for local products to compete imported products on the basis of price or quality. The ultimate outcome is that the industries continued to enjoy the government protection are now finding it difficult to survive and compete with foreign products even in local market (Rodriguez and Rodrik, 2001). Protection from foreign competition is not a new phenomenon in Pakistan. Since 1952, a multifarious system of trade policy was maintained in Pakistan and different tariff rates were adopted for different commodities. The major reason was not only to protect the newly established domestic industries but also to generate revenue. Many types of trade barriers like quota, import bans, high tariff rates, licensing requirements, and others were introduced to protect domestic industries. Unfortunately, owing to smuggling and corruption these objectives were not achieved. Until 1981, about 41 percent of industrial value added products were protected by the import bans and another 22 percent by various other forms of trade restrictions (Siddiqui and Kemal 2002). Meanwhile, there has been considerable progress in trade liberalization in most developing countries, turning from import substitution strategy to export-oriented approach in the 1970s. Trade liberalization policy has actively contributed to enhance the economic performance of many developing economies. Hence, the Government of Pakistan also introduced few additional trade liberalization measures to encourage exports during that period. The devaluation of the Pakistani Rupee by 57% in 1972 and elimination of the export bonus scheme were few important measures to stimulate export. Additionally, the

discontinuation of restrictive licensing scheme was another important policy step towards trade liberalization (Onafowora et al., 1998). In early 1980s, trade policy reforms were initiated in Pakistan with a view to create a competitive and efficient industry through easing the import of raw material, intermediate goods and capital equipment. In order to achieve the efficiency and competitiveness, the domestic market was liberalized and trade barriers were removed gradually. Instead of quantitative restrictions tariff is being used to protect domestic industries and tariff structure has also been rationalized. The customs duty itself was lowered substantially from 80 per cent in 1996 to 30 per cent in 2001 and to 25 per cent in 2002. The average applied tariff rate fell from 42.7 per cent in 1996-97 to 20.4 per cent in 2001-02. During 1983-84 to 1993-94, 724 items were removed from the negative list. Overall, the number of goods on the negative list was reduced from 142 to 16, 32 to 7 and 221 to 107, respectively. In 2002, only 57 items constituted the negative list of imports and 192 items remained on the restricted list due to health and safety concerns. Only an insignificant portion of total imports is subject to quantitative restrictions. All these changes resulted in a decline in protection rates.

Tariff structure was rationalized further in the 1988-91 by the Government of Pakistan (GOP) after reducing the quantitative restrictions by the reduction in tariff rates and their dispersion. Tariffs were reduced on 1134 items and increased on 462 items. The maximum tariff was reduced from 225 percent to 100 percent. In June 1995, the tariff was further reduced to 65 percent. During the same periods the number of tariff slabs was reduced to 10. Except for automobiles and alcoholic drinks, the maximum tariff rate was reduced to 25 percent and the number of tariff slabs has been reduced to four (Rodrick et al, 2004). If we examine the structure of trade during the decades of eighties and nineties, we can see that the share of imported capital goods in total imports has increased from 28 percent in 1981 to 37 percent in 1985-86. However due to slow down in the industrial sector the import of capital good declined to 25 percent

by 2000-01 and in 2006-07 it was 36 percent. The share of raw materials for consumer goods also shows a declining trend over the entire period, in 180-81 it was 50 percent and declined to 40 percent in 1985-86, it was increased to 55 percent in 200-01 and then again declined to 47 percent in 2006-07. The share of imported inputs for capital good has remained less than 10 percent throughout the period. The share of imports of final consumer goods increased from 14 percent to 18 percent over the periods from 1980-86 and it was reduced to 10 percent in 2006-7. Over the time, significant changes can be observable in the structure of exports. The share of exports of primary goods in 2006-07 is even less than one third of the 1980-81 level. The share of exports of semi-manufactured goods has increased from 11 percent to 24 percent over the period of 1980-81 to 1990-91, but declined to 11 percent in 2006-07. However, the exports of manufactured goods show a consistently increasing trend. Its share increases from 45 percent to 72 percent over the 20 years period and it further increased to 78 percent in 2006-07 (Table 1)

Table 1: Share of Exports by Economic Classification (Percentages).

Years	Primary	Semi- Manufactured	Manufactured	Total
1980-81	44	11	45	100
1985-86	35	16	49	100
1990-91	19	24	57	100
1995-96	16	22	62	100
1999-00	12	18	70	100
2001-01	13	15	72	100
2005-06	11	11	78	100
2006-07	11	11	78	100

Source: Economic Survey of Pakistan (various issues)

On the basis of this discussion we can say that trade liberalization and natural resource endowments are not the major factors behind the economic growth. Institutional setup is also an important stimulator for the economic performance of any country. It will be an interesting study to explore the impact of trade liberalization on economic growth in case of Pakistan. The growth rates of post liberalization decades and export

compositions are portraying two opposite scenarios. It will be exiting to explore the impact of trade liberalization on economic growth of Pakistan (World Development Report, 1989).

Estimation and Analysis

The endogenous growth theory provides a good theoretical framework for understanding the relationship between trade policies and economic growth. In order to explore the relationship between economic growth and trade liberalization, I am intended to use human capital model of endogenous growth model with little augmentation through incorporating two additional variables of trade liberalization and foreign direct investment. The present study examines validity of Lucas (1988) model in the context of Pakistan. Since, the functional form of our model is nonlinear in its nature; consequently, we will use the functional relation after taking the natural log on both sides. Hence our final model will be:

Where:

Y =Gross Domestic Product (Measured in billions of current US \$).

L= Labor Force (Measured in millions)

K = Gross Capital Formation. (Measured in millions of current US \$).

FDI = Foreign Direct Investment (Measured in thousands of current US \$)

OT= (Import + Export/ GDP) (Economics openness or Trade intensity)

ln= natural log

e_t is the random error term.

We can estimate the quantitative linkage relationship between among different variables related to economic performance by estimating equation (1). The additional benefit of using natural log is that our estimated coefficient will provide us the information regarding the elasticity of independent variables and the GDP. Since, we need to satisfy different criterions while establishing a quantitative linkage among variables, all the procedures are explained in forthcoming lines.

Data sources

All the data on above mentioned variables was taken from World Development Indicators (World Bank) and Economic Survey of Pakistan.

Estimation and Empirical Results

Prior to estimating the Model, it is important to discuss the expected signs of coefficients of explanatory variables, the expected signs of coefficients are:

The expected sign for the slope coefficient of dependent variable i.e. $\ln Y$ and L (labor), expressed as β_1 in the Model is positive, because GDP will increase due to increase in labor force. . So our null and alternative hypothesis will be:

$H_0: 0$ and $H_1: > 0$ (One tailed test).

We are expecting the positive sign for β_2 which is the slope coefficient for dependent variable i.e. $\ln Y$ and K (Capital), any positive change in the capital stock of nation will effect GDP positively. In this case we will tests following hypothesis :

$H_0: 0$ and $H_1: > 0$ (One tailed test).

The expected sign for β_3 is positive, the empirically many researchers have reported that the trade liberalization (OT) have positive relationship with the overall level of economic activities (GDP growth). So our hypothesis will be:

$H_0: 0$ and $H_1: > 0$ (One tailed test).

The expected sign for β_4 is positive as a positive change in foreign direct investment (FDI) will have positive influence on $\ln Y$ (GDP growth). We will evaluate following null and alternate hypothesis:

$H_0: 0$ and $H_1: > 0$ (One tailed test).

By using the estimation software (MegaStat-2007) I have estimated the MLR model represented by equation (1). The estimated model is as follows.

Regression Analysis

$R^2 0.775$
Adjusted $R^2 0.772$
 $R 0.788$
Std. Error 0.101
n 32
k 4
Dep. Var. $\ln GDP$

ANOVA table

Source	SS	df	MS	F	p-value
Regression	10.8968	4	2.7242	267.39	2.72E-21
Residual	0.2751	27	0.0102		
Total	11.1719	31			

Regression output

variables	coefficients	std. error	t (df=27)	p-value	confidence interval	
					95% lower	95% upper
Intercept	3.2518	0.3171	10.255	8.25E-11	2.6012	3.9025
L	0.0419	0.0078	5.389	1.07E-05	0.0259	0.0578
K	0.00006573	0.00001960	3.354	.0024	0.00002552	0.00010594
OT	2,822.2644	699.2994	4.036	.0004	1,387.4205	4,257.1083
FDI	-0.00027655	0.00006640	-4.165	.0003	-0.00041279	-0.00014030

Our estimated equation is:

$$(10.25) \quad (5.389) \quad (3.354) \quad (4.036) \quad (-4.165)$$

The results indicate that all the estimated signs, except for FDI, are consistent with the expected signs. The relatively smaller sign of coefficients is due to the use of macroeconomic data. One justification of the negative sign of the slope coefficient of FDI could be: that for last few years the FDI in Pakistan is directed towards privatization of state owned enterprises, so FDI is not contributing effectively in the growth of GDP. The t-values mentioned in the parentheses, which are indicates that all the coefficients are statistically significant at 95 % level of significance. The overall significance of the regression can be judged through the F-value which is 267.39 ($P < 0.05$). The value of coefficient of determination R^2 , the criteria to evaluate overall goodness to fit, is 0.775 or 77.5 %, indicating that all these variables jointly explains 77.5 % of the variation in GDP for Pakistan.

Appropriateness of OLS Method to Estimate the Model. In order to explore MLR 3 we have estimated the correlation coefficients between variables and error term, as:

Correlation Matrix

	<i>L</i>	<i>K</i>	<i>OT</i>	<i>FDI</i>	<i>OT</i>	<i>Residual</i>
<i>L</i>	1.000					
<i>K</i>	.916	1.000				
<i>OT</i>	.080	.257	1.000			
<i>FDI</i>	.793	.958	.275	1.000		
<i>OT</i>	.080	.257	1.000	.275	1.000	
<i>Residual</i>	.000	.000	.000	.000	.000	1.000

32sample size

± .349 critical value .05 (two-tail)

± .449 critical value .01 (two-tail)

All the correlation coefficients of independent variables with error term are zero. So, we can think that this model satisfies MLR 3(zero conditional mean). Furthermore, there is problem of multicollinearity, indicated by relatively higher values of correlation coefficients among the variables. The major reason behind this high level of multicollinearity is that we have used the

time-series data in our analysis and time trend is the source of high multicollinearity as well as for higher value of R^2 . Therefore this problem is not serious enough, we can use this model.

CONCLUSION

Though, both positive and negative effects are involved in the channels of transmission. However, on the basis of statistical trends we can say that trade liberalization has positively contributed to the economic growth. Trade liberalization has had a poverty-reducing effect through enhanced growth, productivity and investment and through price stability. However, it also has entailed some costs, in particular costs related to changes in the employment of factors of production, from labor to capital, which have been poverty-increasing impact on labor abundance country. In this regard, trade liberalization has contributed to the accentuation of income inequality in the country. This may be attributed to the poor performance of mediating factors in Pakistan. With respect to income inequality, the evidence suggests that although trade liberalization by itself leads to a slight reduction in inequality, a rise in FDI appears to increase it

It is vital to have consistent policy environment in order to take full benefit of this channel. Further more liberalization of trade can improve growth and reduce poverty in Pakistan under the right conditions. Merely, the liberalization of trade will not be helpful for poverty alleviation. As the government's intervention, in the form of industrial polices, are causing rural-urban bias. The massive disguised unemployment in agricultural sector could be effectively utilized if the investment is not channelized through policy interventions by the government. Some other measures associated with uplifting the productivity with the potential to increase the income of the poor in rural areas are also essential. For sustainability of exports, further advancement in improving institutions, attracting export-oriented FDI and developing new export markets is needed as well as making a better case for improving market access in existing markers.

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