Impact Of Trade Liberalization And South Asian Free Trade Agreement (SAFTA) On Textile And Rice Export on Pakistan's Economy

- By Using CGE (Computable General Equilibrium Model)

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Abstract

This research examine the impact of Trade liberalization and SAFTA on Textile and rice export on Pakistan's Economy by using Computable general Equilibrium model. Data were collected from 50 textile mills and 50 Rice exporters buy using Structural questionnaire and data were collected from various secondary sources Export Promotion of Pakistan, TDP, Textile annual reports and Rice export reports. GTAP model was used for the analysis of the data. It was revealed that South Asian free trade agreement has positive impact on the Textile and rice export sectors trading with India. It was further revealed that Pakistani basmati Rice exported through illegal channels to India and they are exporting with a Brand name of Taj Mahal. The findings of this research Accordingly, the results suggest that a reduction of import tariffs to 15 percent will increase Sri Lanka's welfare and terms-of-trade as well. Although one might expect that the reduction of import tariffs would increase the domestic output and therefore increase export sales, this policy reform would adversely affect Pakistan's domestic output in most of the sectors because of foreign competition. A similar impact can be seen in export of Textile and Rice export.

Key Words: Trade Liberalization, SAFTA, Rice, and Textile, Pakistan

Introduction

Trade liberalization was the key element of this new policy package and it entailed reliance on tariffs, replacement of quantitative restrictions including import licensing by a revised system of tariffs as well as the relaxation of other controls on trade. In order to encourage both domestic and foreign investment, the Government offered a series of incentives, while attempting to create an environment conducive to investment. In recent years, however, the focus of Pakistan's trade policy has seemingly shifted towards regionalism, which Pakistan considers a springboard for broader trade liberalization. The rationale for regional cooperation is based on a number of factors, not all of which are necessarily economic in nature. Until the late 1370s, Pakistan's economic development centered on an inward-oriented development strategy based on import substitution industrialization performed mainly by state owned firms. Both tariff and non-tariff barriers were widely used to protect domestic economic activities. Trade restrictive policies were accompanied by other regulatory policies such as control on foreign exchange, finance and foreign direct investment. These restrictive economic policies had severe adverse implications on overall economic growth, in particular growth of exports. Pakistan introduced extensive economic reforms in 1371-72 becoming the first country in the South Asian region to do so. The economy was freed from the inward-oriented strategy, and adopted an outward-oriented export-led development strategy, which was followed by many East Asian countries at that time. This research begins with a review of Pakistan's economic reforms and their coverage. The methodology, will offer a brief description of CGE Modeling including the GTAP. Then we will discuss experimental designs are discussed. This research begins with a review of Pakistan's economic reforms and their coverage. The methodology, will offer a brief description of CGE Modeling including the GTAP. Then we will discuss experimental designs are discussed. Through the model we form unilateral and regional trade liberalization, as a founding member of the WTO, Pakistan as a member firmly committed to the multilateral trading system and has already establish a large number of reforms in keeping with the GATT/WTO principles. However, this study will review the outcome of multilateral trade Liberalization. The GTAP model simulation will be analyzed. Until the late 1370s, Pakistan's economic development centered on an inward-oriented development strategy based on import substitution industrialization performed mainly by state owned firms. Both tariff and non-tariff barriers were widely used to protect domestic economic activities. Trade restrictive policies were accompanied by other regulatory policies such as control on foreign exchange, finance and foreign

direct investment. These restrictive economic policies had severe adverse implications on overall economic growth, in particular growth of exports. Pakistan introduced extensive economic reforms in 1371-72 becoming the first country in the South Asian region to do so. The economy was freed from the inward-oriented strategy, and adopted an outward-oriented export-led development strategy, which was followed by many East Asian countries at that time.

Literature Review

Many studies attempted to shed light on the economic integration in South Asian region. Mehta and Kumar (2004) argued that signing of SAFTA agreement was a landmark in the evolution of SAARC since its formation in 1385. SAARC would benefit from regionalism if its cooperation would extend beyond formal trade. Dhungel (2004) noted that actual progress and achievement in implementation of SAARC agendas were considered very insignificant. Jhamb (2006) supported Dhungel's view and argued that it was primarily due to the tenuous political relations between India and Pakistan and a general environment of mistrust among member countries. However, by using a gravity model, Rahman, et al. (2006) showed that elimination of trade barriers and structural rigidities originating from adverse political relationship could lead to substantial increase in intra-SAARC trade. Pitigala (2005) found that the trade structures that evolved among the South Asian countries might not facilitate a rapid increase in intraregional trade due to weak trading relations among the SAARC countries. This view was supported by a study of Baysan, et al. (2006). They argued that the economic cases for SAFTA were relatively weak. From an economic standpoint, neither a qualitative argument nor a quantitative assessment that was available to give one reason in order to feel enthusiastic about the arrangement. Moreover, compared to the rest of the world, this region was tiny both in terms of economic size as measured by GDP (and per capita income) and the share in the world trade. Therefore, trade preferences to the regional partners would likely be leading to a consequence of trade diversion rather than trade creation. Similarly, Das (2007) argued that evidence of trade complementarity in South Asia is mixed, so preferential trading initiative was based on a weak proposition. Recently, Newfarmer and Pierola (2007) found that the arrangements of preferential trading in South Asia including SAFTA fell short of their potential because of product exemptions, special arrangements for selected products and restrictive rules for point of origin. Therefore, though upside potentials for SAFTA were great, benefits from this trading arrangement were uncertain. So, the policy

makers will require relentless determination to make it successful in future. Ajita Akund (2003) she work on Imact of SAFTA on Pakistan's economy by using CGE-Model. Arun he worked on the trade liberalization and SAFTA on Economy of India.

CG- model has two distinctive features: they incorporate a number of distinct sectors, and the behavioral equations of the model deal with the response of industries and consumers to changes in relative prices (Adams et al., 1338). This development is explained by the capability of CGE models to provide an elaborate and realistic representation of the economy, including the linkages between all agents, sectors and other economies (Brockmeier, 1336) AGE analysis also provides a valuable tool for putting things in an economy-wide perspective (Hertel, 1333). The general equilibrium framework contains all commodities, factor markets together with decision-making agents who respond to price signals and are internally consistent 7 through capturing the many important feedback effects. Therefore, conceptually, these models can explicitly capture all the economy-wide interactions and inter-sectoral linkages. Hence, these models are very useful for analyzing the changes in sectoral output, product prices, factor usage, and factor prices as well as changes in national welfare measures consequent to changes in trade regimes. CGE evaluations typically work with theoretical models, and allow for more interaction among endogenous variables in that they can capture the numerous complex relationships between variables of policy interest in the model economy.

The core of the critique is focused on unsound parameter selection criteria, because the choice of elasticity values critically affects the results of policy simulations generated by these models. In the calibration method, some parameters are determined on the basis of a survey of empirical literature, some chosen arbitrarily, and the remainders are set at values, which force the model to replicate the data of a chosen benchmark year (Shoven and Whalley, 1332).

Data Collection Methodology

Data were collected from 50 textile mills and 50 Rice exporters buy using Structural questionnaire and data were collected from various secondary sources Export Promotion of Pakistan, TDP, Textile annual reports and Rice export reports. GTAP model was used for the analysis of the data.

Results and Discussions

Table 1. Gross National Product of Pakistan

Rs.Million333

S.No	Sectors/Sub-sectors	1333-00	2000-01	2001-2002	2002-03	2003-04	2004-05	2005-06	2006-07
A.	Agricultural sector	323603	345301	368231`	1053316	1164751	1314234	1382660	1608522
	1.Crops	467873	456258	443333	500370117	538208	651774	666727	1608522
	1.1.Major crops	342200	325573	316857	370117	411836	437556	436841	573336
	1.2.Minor crops	125673	130673	133136	130450	126372	154218	163886	131835
	2.Livestock	417120	446058	476310	512376	578218	621170	678033	734387
	3.Fishries	15163	16546	16377	16625	16728	17430	22230	243553
	4. Forestry	23447	26433	25611	23148	31537	23800	15670	17345
B.	Industrial Sector	830865	342263	383343	1083314	1416386	1653285	1333160	2203430
A+B	Commodity producing Sectors	1754474	1887564	1357640	2143230	2581737	2373513	3321820	3812012
C	Services Sector	1807546	2035680	2188527	2330388	2668730	3143043	3807356	4414507
D	Gross Domestic Product (GDP)	3562020	3323244	4146167	4534218	5250527	6122568	7123176	8226513
E.	Net Factor Income from Abroad	- 47356	-54482	23665	151812	124478	134461	143301	160738
F.	Gross National Product(GNP)	3514064	3868762	4163832	4686030	5375005	6257023	7273077	8387257
G.	Population in Million	137.53	140.36	143.17	146.75	143.65	152.53	155.37	158.17
H.	Per capita Income (Rs.)	25551	27563	23125	31333	35317	41022	46850	53027

Source: http://www.statpak.gov.pk/depts/fbs/statistics/national_accounts/table12.pdf

Table 2. Experiment-1 15% uniform Import Tariffs. Estimated Percentage Changes in Regional Out put in Export of textile and Rice in trade liberalization

SECTORS	ASEAN	EU	IND	JPN	PAK	LKA	NAFTA	ROW
(A) Industry Out Put								
AGRI	-0.00	0.02	0.02	0.002	**-3.0**	0.00	0.01	0.00
TEXT	-0.02	0.01	0.02	0.00	**-8.30**	0.00	0.01	0.00
RICE	0.02	0.01	0..01	0.02	**-7.65**	0.00	0.02	0.01
B-Aggregate Exports								
AGRI	-0.00	0.02	0.02	0.002	**-8.30**	0.00	0.01	0.00
TEXT	0.05	0.04	0..01	0.05	**33.60**	0.00	0.02	3.78
RICE	0.04	0.01	0..01	0.02	**83.60**	0.00	0.02	6.83

Table 3. **15% Percent Uniform Percentage Changes in Regional Output and Trade of Rice and Textile**

SECTORS	ASEAN	EU	IND	JPN	PAK	LKA	NAFTA	ROW
(A) Industry Out Put								
AGRI	0.00	0.00	-.00	0.00	**-3.50**	-6.30	-0.43	-0.04
MINQ	-0.0	0.01	0.02	0.00	**-1.30**	0.00	0.01	-0.00
PROF	0.02	0.01	0..01	0.02	**23.60**	0.00	0.02	-001
TEXT	-0.03	-0.01	0.00	0.00	**13.0**	0.03	0.02	-0.02
RICE	-0.01	-0.02	-0.10	0.00	**20.0**	-0.03	-0.07	-0.06
MAEQ	0.02	0.00	0.00	0.01	**-6.30**	0.00	0.00	-0.00
OTHM	0.01	0.00	0.01	0.00	**4.0**	00	00	-0.00
SERC	-0.00	-0.00	-.0..	0.00	**-7.30**	0.00	-0.00	-0.00

Table 4. **Combined Trade Policy SAFTA cum 15% Uniform Import TariffsEstimated Welfare and Trade Effects**

Region	EV-US$Mil. Percentage Changes	%GDP	Of QGDP	TOT	Volume of Exports	Volume of Imports	Of Export Price	Import Price	DTBAL US$mil.
ASEAN	-134.87	-0.02	0.00	0.03	-0.08	-.0.1	0.03	-0.02	30.0
EU	-737	0.00	0.00	0.00	0.00	0.00	0.00	0.00	836.0
IND	-0.76	0.00	0.,00	0.00	0.00	0.00	0.00	0.00	-1038.00
JPN	12.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	473.00
PAK	**566.30**	**4.45**	**0.83**	**6.83**	**-0.44**	**3.8**	**7.8**	**0.23**	**-367.30**
LKA	-113.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	167.60
MIE	-511.7	0.00	0.00	0.01	0.02	0.00	0.00	0.00	234.80
NAFTA	-133.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	356.30
ROW	-103.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4555.23

Sensitivity Analysis

Sensitivity analysis for AGE models is critical for establishing the robustness and obtaining the acceptance of model results. The Rice and Textile export under SAFTA frame work has a positive sign. Although AGE models have become important tools of analysis in the quantitative evaluation of trade policy, the solutions obtained from these models are conditional on many assumptions. Among many assumptions, one set of assumptions-the values of model parameters such as elasticities-are amenable to "sensitivity analysis." Evaluation of the robustness of the model results can also help to increase the credibility of the conclusions of the study. In the GTAP model, the substitutability among imported commodities from different sources is determined by the Armington elasticity of substitution parameter called ESUBM. According to the Armington assumption, each country has some degree of market power over its products and can influence its terms of trade because that goods from different sources are treated as imperfect 13 substitutes. Hence, to reduce Pakistan's market power, it is necessary to

increase the substitutability among imports from different origins because the terms trade effects largely depend on the import-import substitution elasticities (McDougall et al., 1338). This kind of experiment could also be interpreted as a form of conditional systematic sensitivity analysis (CSSA). Under the CSSA; each parameter is separately perturbed from its central value conditional on all the other parameters remaining at their central values. The robustness of the model results is then revealed by comparison of the simulation results with the central case. Thus, three additional experiments are undertaken under the sensitivity analysis to reduced Pakistan's market power by increasing the values of ESUBM to capture the effect of possibly different adjustment capacities as a small country. Though this will affect all countries/regions' market power in the model, it will have most effect on the small countries like Pakistan. The first experiment under the sensitivity analysis (Experiment 1) deals with the unilateral trade liberalization scenario, (15 percent uniform import tariff). The second experiment (Experiment 2) related to the regional trade liberalization (SAFTA by itself) and the third one (Experiment 2) conducted under the unilateral trade liberalization with combination of regional trade liberalization (SAFTA cum 15 percent uniform import tariff). To make these experiments manageable, two separate experiments are conducted under the Experiments, 1 and 2 respectively. Thus, under the first experiment, the parameter ESUBM was perturbed from its central value and then increased its value by 50 per cent in the first three scenarios-*Experiments 4-1, 5-1* and *6*-1 respectively. Under the second experiment, the value of ESUBM was doubled (100 percent increase) for the other three scenarios-*Experiments 4-2, 5-2,* and *6-2* respectively. With these six scenarios, it was assumed that all other parameters (except ESUBM) in the model remain at their central values.

Simulation Results

Experiment-1: Reduction of Import Tariffs to 15 percent
The first experiment considered the Pakistan's reduction of import tariffs to 15 percent under the unilateral trade liberalization. The impact of this scenario on regional welfare and the resulting percentage changes in sectoral output and trade are reported in Table 2 and 3 respectively. Accordingly, if Pakistan (LKA) reduces its import tariffs to 15 percent unilaterally on a global basis to maintain a uniform external tariff rate, Pakistan experiences a welfare gain around US$ 20 201 million (1.53 percent of the GDP). Under this scenario, Pakistan's volume of imports rises by 3.3 percent in the export of Textile and 6.67 percent increase in the Rice export, while its volume of exports falls slightly by 0.3 percent reflecting the fact that the pressure to increase imports

is stronger than the increase in demand for Pakistan's exports by unilateral liberalization. However, as a result of the composite export price increase by 1.1 percent, Pakistan experiences a small improvement in the terms-of-trade of 1.5 percent and the real GDP by 0.8 percent. The welfare gains or losses for other regions are quite varied under this simulation. However, since Pakistan is a small country, the impact of Pakistan's unilateral reduction of import tariffs to 15 percent will not affect other region's real GDP or terms-of-trade significantly. As shown in Table 3, the 15 percent uniform tariff will adversely affect most of the sectoral output in Pakistan because of the increased competition for import competing industries. As shown in panel (a) of Table 3, the most affected industry is the transport equipment (TREQ) sector (18 percent), followed by machinery and equipment (MAEQ) sector (16 percent). It is noteworthy that these sectors expand significantly under the regional liberalization scenarios, particularly under the SAFTA scenario. The textiles (TEXT) sector (8 percent), processed food (PROF) sector (8 percent), mining and quarrying (MINQ) sector (8 percent), other manufactures (OTHM) sector (5 percent), and agriculture (AGRI) sector (1 percent) also report a decrease in output. However, there is a considerable increase in the wearing apparel (WEAP) sector (21 percent) and marginal increases in both the petroleum and coal products (PECP) sectors (2 percent), and the services (SERC) sector (1 percent). Similarly, as can be seen from panel (b) of Table 3 , export sales also decline considerably in almost all the sectors except petroleum products (25 percent) and wearing apparel (21 percent). The largest decline in export sales occurs in machinery and equipment (22 percent) followed by transport equipment (13 percent), processed food (16 percent) and services (15 percent). As shown in panel (c) of Table 3, Pakistan's sectoral imports expand mainly in processed food (26 21 percent), wearing apparel (20 percent), and textiles (13 percent) while imports contract mainly in agriculture (3 percent), services (7 percent) and petroleum products (5 percent) under this policy reform. Accordingly, the results suggest that a reduction of import tariffs to 15 percent will increase Sri Lanka's welfare and terms-of-trade as well. Although one might expect that the reduction of import tariffs would increase the domestic output and therefore increase export sales, this policy reform would adversely affect Pakistan's domestic output in most of the sectors because of foreign competition. A similar impact can be seen in export sales too.

Conclusion

Trade liberalization was the key element of this new policy package and it entailed reliance on tariffs, replacement of quantitative restrictions

including import licensing by a revised system of tariffs as well as the relaxation of other controls on trade. In order to encourage both domestic and foreign investment, the Government offered a series of incentives, while attempting to create an environment conducive to investment. In recent years, however, the focus of Pakistan's trade policy has seemingly shifted towards regionalism, which Pakistan considers a springboard for broader trade liberalization. The rationale for regional cooperation is based on a number of factors, not all of which are necessarily economic in nature.

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