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IMPACT OF PAK-INDIA RELATIONSHIP ON RICE TRADE ON ECONOMY OF PAKISTAN BY USING COMPUTABLE GENERAL EQUILIBIUM MODEL (CGE)

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Abstract

This exploration researches the Impact of PAK-INDIA Rice exchange on Economy of Pakistan. Information were gathered from GTAP-7 database. Information were gathered from 60 rice exporters by utilizing straightforward irregular strategy and information were investigated by utilizing GEM-programming. Distinctive reproduction keep running on GTAP-7 database and different duty rates connected. It was uncovered that if India were evacuating the touchy rundown thing, in this situation both nations would have positive effect on GDP, Export, Import. The outcomes demonstrates that there is sure effect of Rice fare to India. It was further uncovered that if Pakistan is given MFN status to India, Pakistan's import diminished and Export expanded and general positive effect on Economy. The principal situation is when typical exchanging connection with India will be restored; it implies that both nations will give the MFN (Most Favored Nations) status to one another. In the second situation, the SAFTA will be agent and there will be unhindered commerce in the middle of India and Pakistan and both nations will uproot all levies and custom obligations from every others' imports. The Global exchange examination GTAP model is utilized to dissect the conceivable effect of SAFTA on Pakistan in a multi nation, multi segment connected General harmony casing work. Results in light of this exploration uncover that on SAFTA, grounds, here will be net fare advantages in Pakistan's economy.

Watchwords; PAK-INDIA; TRADE; CGE.

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1. Presentation: Trade liberalization was the key component of this new arrangement bundle and it involved dependence on duties, substitution of quantitative limitations including import permitting by a reexamined arrangement of levies and in addition the unwinding of different controls on exchange. With a specific end goal to empower both household and outside speculation, the Government offered a progression of motivating forces, while endeavoring to make a domain helpful for venture. As of late, on the other hand, the center of Pakistan's exchange approach has apparently moved towards regionalism, which Pakistan considers a springboard for more extensive exchange liberalization. The method of reasoning for provincial collaboration depends on various components, not all of which are fundamentally monetary in nature. Until the late 1970s, Pakistan's financial improvement fixated on an internal arranged advancement procedure in view of import substitution industrialization performed essentially by state claimed firms. Both tax and non-tax obstructions were broadly used to secure residential financial exercises. Exchange prohibitive arrangements were joined by other administrative approaches, for example, control on remote trade, account and outside direct speculation. These prohibitive financial arrangements had extreme unfavorable ramifications on general monetary development, specifically development of fares. Pakistan presented broad financial changes in 1971-72 turning into the first nation in the South Asian locale to do as such. The economy was liberated from the internal arranged procedure, and received an outward-situated fare drove improvement methodology, which was trailed by numerous East Asian nations around then. This examination starts with a survey of Pakistan's financial changes and their scope. The system, will offer a brief portrayal of CGE Modeling including the GTAP. At that point we will talk about trial plans are examined. Through the model we frame one-sided and territorial exchange liberalization, as an establishing individual from the WTO, Pakistan as a part immovably dedicated to the multilateral exchanging framework and has as of now set up countless with regards to the GATT/WTO standards. In any case, this study will audit the result of multilateral exchange Liberalization. The GTAP model reenactment will be investigated.

Targets

- The targets of the present study are to examine and measure the potential monetary cost and advantages of the imminent Rice exchange in the middle of India and Pakistan Trade on GDP, Export and Imports.
- To break down the Welfare impacts of host nation on Pak-India Trade
- To investigate the welfare pick up/misfortune on MFN
- To decide the effect on the economy of Pakistan

Writing Review

Territorial exchange understandings (RTAs) have risen as a distinct option for accomplish exchange liberalization as multilateral endeavors have confronted political and monetary obstacles.2,3 The challenges of coming to concurrences on touchy issues like farming and administrations have been apparent in the Doha Round. The past rounds were additionally stamped by mind boggling and moderate transaction forms. For one, as the quantity of members builds, it has been more hard to address every nation's requests for extraordinary contemplations.

RTAs pass on points of interest and also constraints. By decreasing the quantity of members in the arrangement they can extend the examination to incorporate more measurements of monetary coordination. Contrasted and one-sided liberalization, political backing for RTAs likewise is by all accounts more noteworthy given the view of correspondence from other part nations. Then again, since the early work of Viner (1950), these advantages have been weighted against mutilations that RTAs can make. By accepted oppressing nonmembers, RTAs misshape asset distribution, favoring local makers to the potential burden of nearby buyers. Late research additionally stresses the worldwide outcomes of numerous and covering RTAs as far as the exchange costs they force (Feridhanusetyawan, 2005).

In spite of the fact that RTAs have fluctuated parts, these assentions incorporate some or the greater part of the accompanying eight components (Bhagwati and Panagariya, 1996 give an outline): (i) a tax liberalization program—TLP (change of nontariff obstructions, e.g. portions, to their levy comparable and the successive decrease of taxes; exceptional contemplations to slightest created countries4 are not extraordinary); (ii) delicate records (merchandise or administrations to be absolved from the tax lessening program);5 (iii) guidelines of source—ROO (counteractive action of the utilization of the special duties to non territorial products or administrations as characterized by the agreement);6 (iv) institutional courses of action (foundation of a board or regulatory advisory group in charge of the organization and execution of the understanding); (v) exchange assistance strategies (accumulation of instruments to diminish exchange expenses of importing and The writing about exchange assentions is rich in acronyms that mean either their topographical augmentation or their level of exchange hindrance diminishments. RTAs allude to understandings including local accomplices. Facilitated commerce Agreements (FTAs) alludes to understandings that incorporates the full disposal of duties (and exchange hindrances) while Preferential Trade Agreements (PTAs) s allude to assentions including fractional levy end. For instance, SAPTA is South Asia's PTA and SAFTA is South Asia's FTA.Exporting, including homogenization of traditions practices and specialized help exceptionally to the slightest created individuals); (vi) debate settlement instrument (techniques to report and manage infringement to the understanding); (vii) protections measures (suspension of particular treatment on grounds that imports are bringing about or debilitating to bring about genuine harm to the residential mechanical base); and (viii) parallel lessening in outside venture obstructions and/or exchange administrations.

South Asia (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) has been included in setting up its own RTA. The South Asian Association for Regional Cooperation(SAARC) was framed in 1985 with the goal of abusing "quickened financial development, social advancement and social improvement in the locale" for the welfare of the people

groups of South Asia (SAARC Secretariat, 2006). In 1995, its comparing RTA (SAPTA) came into power. South Asian Free Trade Agreement (SAFTA) has been confirmed and gone into power in mid-2006. In correlation to other African nations, in the course of recent decades consideration of analysts, government, and givers has been engaged in Kenya's plant and horticulture parts because of their ability to become quickly but then economically to meet universal measures (Jaffee, 2004). The creation exceptionally arranged to fare markets can be track back at the ranch level. While more than 90% of smallholder agriculturists in everything except the parched districts of Kenya produce plant items, under 8% develop other sort of yields (Tschirley, et al, 2004). SAFTA is relied upon to expand provincial (exchange creation) however may do as such to the detriment of exchange streams from more productive non local suppliers (exchange preoccupation). Baysan and others (2006) contend that it is impossible that the most proficient suppliers of the part nations are inside of the area. In view of that and on the limitation of SAFTA's delicate records and standards of beginning, it finishes up the financial benefits of SAFTA are "very frail." Using the static general harmony approach, Bandara and Yu (2003) find that the full disposal of exchange obstructions between South Asian nations would expand the welfare level of India. To examine the impacts of RTAs on exchange streams, regularly the gravity comparison methodology is utilized. In its easiest rendition, it proposes a relationship between the "mass" (GDP) of two nations and their exchange streams. In viable terms, the methodology offers a "contingent general harmony" connection (Anderson and van Wincoop, 2004) in which respective exchange is demonstrated as free of exchange streams with outsider nations.

Gravity comparisons have additionally been utilized to quantify imperceptibly exchange obstructions, to separate between hypothetical exchange models, and to dissect the impacts of exchange approaches (either in an ex-post or ex-stake fashion).11 The last has been liable to evaluates and refinements (e.g., Carrère, 2006) among the most vital being that for the gravity mathematical statement investigation to be suitable one needs to expect (or "condition on") that the arrangement changes being made.

Instrument

- GTAP-Model
- Variables PAK-INDIA TRADE (Independent variable)
- SAFTA (Dependent Variable)
- Dependent Variables
- Textiles (Dependent Variable)
- Pharmaceuticals (Dependent Variable)
- Automotive parts and engineering(Dependent Variable)
- Agriculture(Dependent Variable)
- Financial an insurance services(Dependent Variable)
- GTAP-Model ((Hertel, 1997) GTAP-7 Data Base
- Data will be analyzed by using GEMS Software

Sectors:	Codes
RICE	PDR

Pak-India Trade Model

Aggregated Regions	GTAP Region

1. Pakistan (PK) Pakistan
2. India (IND) India
3. Rest of South Asia
   Sri Lanka
   Bangladesh
   Bhutan
   Maldives
   Nepal
4. Rest of the World (ROW) all other Countries

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Pak-India Trade Project

Table-1.Comparative Real GDP-Growth Rate (%)

Region/Country	2009	2010	2011	2012	2013	2014 (P)
World GDP	**-0.6**	**5.2**	**4.0**	**3.2**	**3.3**	**4.0**
Euro Area	-4.4	2.0	1.4	-0.6	-0.3	1.1
United States	-3.1	2.4	1.8	2.2	1.9	3.0
Japan	-5.5	4.7	-0.6	2.0	1.6	1.4
Germany	-5.1	4.0	3.1	0.9	0.6	1.5
Canada	-2.8	3.2	2.6	1.8	1.5	2.4
Developing Countries	6.9	9.9	8.1	6.6	7.1	7.3
China	9.2	10.4	9.3	7.8	8.0	8.2
Hong Kong SAR	-2.5	6.8	4.9	1.4	3.0	4.4
Korea	0.3	6.3	3.6	2.0	2.8	3.9
Singapore	-0.8	14.8	5.2	1.3	2.0	5.1
Vietnam	5.3	6.8	5.9	5.0	5.2	5.2
	ASEAN					
Indonesia	4.6	6.2	6.5	6.2	6.3	6.4
Malaysia	-1.5	7.2	5.1	5.6	5.1	5.2
Thailand	-2.3	7.8	0.1	6.4	5.9	4.2
Philippines	1.1	7.6	3.9	6.6	6.0	5.5
	South Asia					
India	5.0	11.2	7.7	4.0	5.7	6.2
Bangladesh	5.9	6.4	6.5	6.1	6.0	6.4
Sri Lanka	3.5	8.0	8.2	6.4	6.3	6.7
Pakistan	**0.4**	**2.6**	**3.7**	**4.4**	**3.6**	**4.4**

Source: Economic Survey of Pakistan-2012-13

Table-2-Growth rate Percentage

Sectors/Sub-Sectors	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-2013(P)
1. Agriculture	**3.4**	**1.8**	**3.5**	**0.2**	**2.0**	**3.5**	**3.3**
Crops	4.4	-1.0	5.2	-4.2	1.0	2.9	3.2
Important Crops	6.5	-4.1	8.4	-3.7	1.5	7.4	2.3
Other Crops	2.1	6.0	0.5	-7.2	2.3	-7.7	6.7
Cotton Ginning	-0.8	-7.0	1.3	7.3	-8.5	13.8	-2.9
-Livestock	2.8	3.6	2.2	3.8	3.4	3.9	3.7
-Forestry	2.7	8.9	2.6	-0.1	4.8	1.7	0.1
-Fishing	0.4	8.5	2.6	1.4	-15.2	3.8	0.7
Industrial Sector	**7.7**	**8.5**	**-5.2**	**3.4**	**4.7**	**2.7**	**3.5**
2. Mining & Quarrying	7.3	3.2	-2.5	2.8	-4.4	4.6	7.6
3. Manufacturing	9.0	6.1	-4.2	1.4	2.5	2.1	3.5
-Large Scale	9.6	6.1	-6	0.4	1.7	1.2	2.8
-Small Scale	8.3	8.3	8.6	8.5	8.5	8.4	8.2
-Slaughtering	3.2	3.3	3.8	3.2	3.7	3.6	3.5
Electricity Generation & Distribution & Gas Distt	-12.9	37.2	-12.1	16.7	66.4	2.7	-3.2
4. Construction	12.0	15.4	-9.9	8.3	-8.6	3.2	5.2
Commodity Producing Sector	**5.5**	**5.1**	**-0.9**	**1.8**	**3.3**	**3.1**	**3.4**
Services Sector	**5.6**	**4.9**	**1.3**	**3.2**	**3.9**	**5.3**	**3.7**
7. Wholesale & Retail Trade	5.8	5.7	-3.0	1.8	2.1	1.7	2.5

6.Transport, Storage and	6.9	5.5	5.0	3.0	2.4	8.9	3.4
8. Finance & Insurance	9.1	6.3	-9.6	-3.3	-4.2	1.0	6.6
Housing Services (Ownership of Dwellings	4.0	4.0	4.0	4.0	4.0	4.0	4.0
General Government Services	2.7	0.2	5.6	8.0	14.1	11.1	5.6
Other Private Services	4.6	5.4	6.5	5.8	6.6	6.3	4.0
GDP (fc)	**5.5**	**5.0**	**0.4**	**2.6**	**3.7**	**4.4**	**3.6**

Source-Economic Survey of Pakistan-2012-

Table .3: Demographic indicators of SAFTA Countries.

S.No.	Item	Unit	Year/	Bangladesh	India	Pakistan	Nepal	Sri Lanka	Maldives
1	2	3	4	14	15	16	17	18	19
1.	Area	000'Sq.Km	2010	144	3287	796	147	66	0.3
2.	Population	Millions	2010	148.70	1224.60	173.60	30.0	20.9	0.3
		Millions	2020[b]	167.10	1385.20	205.20	35.1	22.3	0.4
3.	Population Urbanized	%	2004[b]	25.1	28.7	34.9	15.8	15.1	29.6
		%	2015[b]	29.9	32.0	39.6	20.9	15.7	34.8
4.	Population under age 15	%	2010	31	31	35	36	25	34
5.	Population age 65 and above	%	2010	5	5	4	4	8	3.8
6.	Population Annual Growth Rate	%	2000-10	1.4	1.5	1.8	2.1	1.1	1.8
7.	Crude Birth Rate	Per 1000 Population	2010	20	22	27	24	18	--
8.	Total Fertility Rate	Births per woman	2010	2.2	2.6	3.4	2.7	2.3	

9.	Crude Death Rate	Per 1000 Live Births	2010	6	8	7	6	7	--
10.	Infant Mortality Rate	Per 1000 Live Births	2010	38	48	70	41	14	33
11.	Mortality Rate Under 5 years age	Per 1000 Live Births	2010	48	63	87	50	17	42
12.	No. Of Deaths under 5 years	000'	1992	103	--	82		--	--
13.	Life Expectancy at Birth								
	Male	Years	2010	68	64	64	68	72	67
	Female	Years	2010	69	67	66	69	78	67
	Persons	Years	2010	69	65	65	68	75	77

Source-GTAP-7 Database

Table 4: GTAP Substitution Elasticity's

GTAP Commodities	Value-added	Domestic/ Imports	Sourcing of Imports

ISSN 2278-5612

(σ VA)	(σ D)	(σ M)	
Paddy rice	0.24	2.20	4.40
Wheat	0.24	2.20	4.40
Cereal grains nec	0.24	2.20	4.40
Vegetables, fruit, nuts	0.24	2.20	4.40
Oil seeds	0.24	2.20	4.40
Sugar canes, sugar beet	0.24	2.20	4.40
Plant-based fibers	0.24	2.20	4.40
Crops nec	0.24	2.20	4.40
Cattle, sheep and goats, horses	0.24	2.80	5.60
Animal products nec	0.24	2.80	5.60
Raw milk	0.24	2.80	5.60
Wool, silk-worm cocoons	0.24	2.20	4.40
Forestry	0.20	2.80	5.60
Fishing	0.20	2.80	5.60
Coal	0.20	2.80	5.60
Oil	0.20	2.80	5.60
Gas	0.20	2.80	5.60
Minerals nec	0.20	2.80	5.60
Cattle, sheep and goat, horse meat	1.12	2.20	4.40
Meat Products nec	1.12	2.20	4.40
Vegetable oils and fats	1.12	2.20	4.40
Dairy products	1.12	2.20	4.40
Processed rice	1.12	2.20	4.40
Sugar	1.12	2.20	4.40
Food products nec	1.12	2.20	4.40
Beverages and tobacco products	1.12	3.10	6.20
Textiles	1.26	2.20	4.40
Wearing apparel	1.26	4.40	8.80
Leather products	1.26	4.40	8.80
Wood products	1.26	2.80	5.60
Paper products, publishing	1.26	1.80	3.60
Petroleum, coal products	1.26	1.90	3.80
Chemicals, rubber, plastic pro	1.26	1.90	3.80
Mineral products nec	1.26	2.80	5.60
Ferrous Metals	1.26	2.80	5.60
Metals nec	1.26	2.80	5.60
Metal products	1.26	2.80	5.60
Motor vehicles and parts	1.26	5.20	10.40
Transport equipment nec	1.26	5.20	10.40
Electronic equipment	1.26	2.80	5.60
Machinery and equipment nec	1.26	2.80	5.60
Manufacture nec	1.26	2.80	5.60
Electricity	1.26	2.80	5.60
Gas manufacture, distribution	1.26	2.80	5.60
Water	1.26	2.80	5.60
Construction	1.40	1.90	3.80
Trade, transport	1.68	1.90	3.80
Financial, business, recreational services (private)	1.26	1.90	3.80
Public admin and defense, education, health	1.26	1.90	3.80

Source: The GTAP Database, Version 7

Table 6: Commodity Aggregation: 10 Sectors of the Model

Aggregated Commodity	GTAP Commodity
(1) Agriculture, Forestry and Fishing (AGRI)	Paddy rice (pdr) Wheat

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(w h t)		cane, suger beet (c_b) Plant based fibers (pfb)
Cereal grains nec (gro) Vegetables, fruit, nuts (v_f) Oil seeds (osd)		Crops (nec)
Sugar		Bovine cattle, sheep and goats, horses (ctl) Animal products nec (oap)
		Raw milk (rmk)
		Wool silk-worm cocoons (wol) Forestry (for)
		Fishing
	(2) Mining and Quarrying (MINQ)	Coal (col) Oil Gas (gas) Minerals nec (omn)
	(3) Processed Food (PROF)	Bovine cattle, sheep and goat, horse meat prods (cmt) Meat products nec (omt)
		Vegetables oils and fats (vol) Dairy products (mil) Processed rice (pc Sugar (sgr) Food products nec (ofd) Beverages and tobacco products (b_t)
	(4) Textiles (TEXT)	Textiles (tex)
	(5) Wearing apparel (WEAP)	Wearing apparel leather products (lea)
	(6) Petroleum, Coal Products (PECP)	Petroleum, coal products (p_c)
	(7) Machinery and Equipment (MAEQ)	Electronic equipment (ele)
		Machinery and equipment nec (ome)
	(8) Transport Equipment (TREQ)	Motor vehicles and parts (mvh) Transport equipment nec (otn)

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(9) Other Heavy Manufactures(OTHM)

Wood products (lum)

Paper products, publishing (ppp) Chemical, rubber, plastic products (crp) Mineral products nec (nmm)

Ferrous metals (i_s) Metals nec (nfm

Metal products

Manufactures nec (omf)

(10) Services (SERC) Electricity (ely)

Gas, manufacture, distribution (gdt)

Water (wtr) Construction (cns)

Trade, transport (t_t)

Financial, business, recreational services (osp) Public admin and defence, edu health (osg) Dwelling (dwe)

GTAP-Database-7

Table 8: Experimental Designs for Pakistan's Trade on SAFTA

Experiments		Level of Tariff Reduction or Elimination
Unilateral Liberalization		
E-1	Uniform External Tariffs	15% on Global Basis.
Regional Liberalization		
E-2	South Asian Free Trade Agreement	5% between Pakistan and SAFTA Countries.
Unilateral cum Regional Liberalization		
E-3	SAFTA plus 15% uniform external tariffs	100% between Pakistan and SAARC countries plus 15% on Global basis
Sensitivity Analysis		
Unilateral Liberalization		
E-4 Uniform External Tariff		15% on Global basis -Central scenario
E-4.1 50% increase of ESUBM		15% on Global basis
E-4.2 100% increase of ESUBM		15% on Global basis
Regional Liberalization		
E-5 SAFTA		100% between Pakistan and SAFTA countries -Central scenario
E-5.1 50% increase of ESUBM		100% between Pakistan and SAFTA countries
E-5.2 100% increase of ESUBM		100% between Pakistan and SAFTA countries
E-6 Unilateral cum Regional Liberalization		100% between Pakistan and SAARC countries plus 15% on Global basis -Central scenario
E-6.1 50% increase of ESUBM		100% between Pakistan and SAARC countries plus 15% on Global basis
E-6.2 100% increase of ESUBM		100% between Pakistan and SAARC countries plus 15% on Global basis

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Table 9: Percent Uniform Import Tariffs Estimated Welfare and Trade Effects Experiment-1-15 (Percentage changes In millions)

Countries	EV US$	% of GDP	TOT	V-Export	V-Import	Exp-Price	Import-Price	DTBAL-Price Price
IND	**3213.97**	**3.40**	**0.41**	**0.4**	**1.23**	**2.1**	**3.68**	**109.74 m**
PAK	**4442.63**	**4.35**	**5.98**	**2.19**	**0.61**	**-8.97**	**5.44**	**285.66m**
XSA	-1592.56	-1.74	-0.57	-3.92	31.54	24.83	-2.12	-1322.73m
XWA	-375.79	-0.02	0.00	-0.04	0.00	-0.06	-0.05	149.69m

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Description

IND=INDIA

PAK=PAKISTAN

XSA = REST OF SOUTH ASIA

XWA= REST OF WORLS

All experiments were conducted with the standard general equilibrium closure of the GTAP model. According to the results Base line tariff for India is 18% SAFTA tariff is 5% and given MFN Tariff is 15% and rest of world is 15%..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 sectorial output and trade are reported in Table 9 and 10 respectively. Accordingly, if Pakistan (PAK) reduces its import tariffs to 15 percent unilaterally on a global basis to maintain a uniform external tariff rate, Pakistan's EV US& 4442.63 and GDP 4.35, and India's EV US$ 321 million (3.40 percent of the GDP). Under this scenario, Pakistan's volume of imports rises by 1.23 percent while its volume of exports falls slightly by 0.4 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 2.1 percent, Pakistan's experiences a small improvement in the terms-of-trade of 1.5 percent and the real GDP by 0.9 percent. The welfare gains or losses for other regions are quite varied under this simulation. However, since Pakistanis impact on unilateral reduction of import tariffs to 15 percent will not affect other region's real GDP or terms-of-trade significantly.

Table 10: Experiment-1

15 Percent Uniform Import Tariffs

Estimated Percentage Changes in Regional Output and Trade

Sector	IND	PAK	XSA	XWA
(a) Industry Output (In Millions)				
PDR	**-.02**	**0.77**	0.07	-0.03
TEX	**1.45.03**	**2.60**	0.01	0.11
(b) Export	(In Millions)			
PDR	**1.44**	**1.00**	0.07	-0.03
TEX	**-0.16**	**6.79**	0.01	0.11

Tariff Rates

5% SAFTA

15% XWA

5% XSA

15 MFN

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Table 11: Experiment-2 South Asian Free Trade Agreement - SAFTA- Estimated Welfare and Trade Effec

ou ntries	EV US$	% of GDP	TOT	Vol-Export	Volume-Import	Export Price	Import-Price	DTBAL US$
IND	**5434.97**	**4.34**	**0.80**	**5.40**	**4.00**	**9.38**	**8.68**	**-1100.90 m**
PAK	**5643.63**	**6.35**	**0.99**	**7.11**	**7.77**	**5.97**	**7.44**	**-786.77m**
RAS	-1592.56	-1.74	-0.57	-3.92	31.54	24.83	-2.12	-1322.73m
XSA	-375.79	-0.02	0.00	-0.04	0.00	-0.06	-0.05	149.69m

Tariff Rates

SAFTA=5%

MFN=10%

XWA=10%

SAFTA=10

The trade reform scenario (*Experiment-2)* was conducted under the regional trade liberalization policy option to examine the impact of South Asian Free Trade Agreement- SAFTA in different contexts from the perspective of Pakistan. As a member of the SAFTA, Pakistan. committed to continue major trade liberalization measures, to establish and promote free trad arrangements for strengthening inter-regional economic co-operation and the development of national economies. In this experiment, it was assumed that Pakistan and each of the SAARC member countries in the model (India and the Rest of South Asia comprising Bangladesh, Bhutan, Maldives, Nepal and Sri lanka) remove their tariffs against each other, while maintaining heir tariffs against the rest of the South Asia.

Table 12: Experiment-2

10 Percent Uniform Import Tariffs

Estimated Percentage Changes in Regional Output and Trade

Sector	IND	PAK	XSA	XWA
(a) Industry Output				
PDR	**8.55**	**1.79**	0.08	-0.08
Exports				
PDR	**0.45**	**2.00**	0.05	-0.07

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Tariff Rates

SAFTA=5%

MFN=10%

XWA=10%

SAFTA=10

The trade reform scenario (Experiment-2) was conducted under the regional trade liberalization policy option to examine the impact of South Asian Free Trade Agreement- SAFTA in different contexts from the perspective of Pakistan. As a member of the SAFTA, Pakistan. committed to continue major trade liberalization measures, to establish and promote free trad arrangements for strengthening inter-regional economic co-operation and the development of national economies. In this experiment, it was assumed that Pakistan and each of the SAARC member countries in the model (India and the Rest of South Asia comprising Bangladesh, Bhutan, Maldives, Nepal and Sri lanka) remove their tariffs against each other, while maintaining heir tariffs against the rest of the South Asia. According to results in SAFTA 5% tariff the Pakistan industry output .079 compare to India -0.4 that Pakistan's will benefit on SAFTA trade with India

The Second experiment considered that Pakistan's reduction of import tariffs to 10 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 12, 13. and 14 respectively. Accordingly, if Pakistan reduces its import tariffs to 10 percent unilaterally on a global basis to maintain a uniform external tariff rate, Pakistan's experiences a welfare gain around US$201 million (1.53 percent of the GDP). Under this scenario, Pakistan's volume of imports rises by 3.3 percent 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's 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, the impact of Pakistan's unilateral reduction of import tariffs to 10 percent will not affect other region's real GDP or terms-of-trade significantly.

Accordingly, the results suggest that a reduction of import tariffs to 10 percent will increase Pakistan'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.

Table 16: Sensitivity Analysis (Experiments 4, 5 & 6)
Estimated Welfare and Trade Effects

	15 % Uniform Import Tariff			SAFTA			SAFTA cum 5% Uniform Tariff		
Central scenario		50% increase in ESUBM	100% increase in ESUBM	Central scenario	50% increase in ESUBM	100% increase in ESUBM	Central scenario	50% increase in ESUBM	100% increase in ESUBM
	E-4	E4-1	E4-2	E-5	E5-1	E5-2	E-6	E6-1	E6-2
EV (US$ Mil)	201.84	226.30	237.60	221.55	33.38	390.01	311.11	600.00	722.22
EV % of GDP	5.33	5.41	4.77	5.70	6.33	4.10	5.16	5.11	5.22

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QGDP	1.60	1.33	1.55	1.44	1.55	1.12	4.54	3.20	4.70
TOT	1.50	1.55	1.60	4.70	6.22	8.66	6.11	8.00	8.00
DT BAl	-130.00	-180.00	-155.11	-120.00	-22.22	-233.00	-422.97	-220.00	-256.22
Vol. of Exports	-0.611	0.77	0.44	0.77	1.44	2.66	-0.95	0.78	0.88
Vol. of Imports	4.00	5.20	6.44	7.00	7.33	16.44	9.55	13.09	14.00
Export Price	1.07	0.90	0.93	4.90	8.11	10.11	6.11	8.11	10.81
Import Price	2.6	0.09	0.55	0.30	0.66	0.78	0.85	0.55	0.76

No

n-Economic

Benefits

Besides the welfare and terms of trade gains suggested by the simulations, regional trade liberalization under SAFTA may have many non-economic benefits to Pakistan particularly social and political benefits; those are difficult to account for in a quantitative way. For example, SAFTA can help its members to speak with one voice in global negotiations and develop a common understanding on several global trade-related issues.

It could also reduce the political disputes among members and make the region a more attractive location for foreign direct investments. Pakistan is crucial for obtaining significant benefits from FDI, liberalization of trade and FDI policies needs to be complemented by appropriate policy measures with respect to education, R&D, and human capital accumulation if trade negotiation with India will restore.

Table19: Sensitivity Analysis (Experiments4,5&6)Continued Estimated percentage Change in Pakistan's Output &Trade(b) Aggregate Exports (millions)

Sectors	E-4	E-4-1	E-4-2	E-5	E-5-1	E 5-2	E-6	E-6-1	E-6-2	Total
AGRI	2.75	3.28	-15.59	35.09	55.21	70.08	26.12	49.19	49.19	63.14 m
PHAR	-6.46	-10.10	-11.61	-15.92	-19.12	-17.44	-19.13	-30.91	-30.91	-33.23m
AUTO	-16.22	-22.71	-28.88	9.51	25.32	62.20	-6.52	2.35	2.35	-29.81 m
TEXT	3.82	2.85	4.80	3.09	27.28	29.13	8.8	16.41	16.41	18.50m
OFI ISR	21.51	32.22	43.32	-12.45	-23.75	-40.30	4.31	-3.46	-3.46	-15.88m
OTPL	24.63	43.42	66.39	-0.14	-1.42	-2.11	23.41	40.20	40.20	-60.65m
	Aggregate Imports (millions)									
AGRI	-1.16	-1.54	-1.83	-1.44	-2.14	-1.10	-1.32	-1.64	-13.64	-3.51m
PHAR	-1.61	-2.57	-3.34	2.15	5.42	9.91	-0.62	2.87	2.87	6.31m

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AUTO	25.87	26.21	27.25	17.88	25.73	33.92	41.31	47.54	47.54	53.21m
TEXT	-11.89	-22.23	-11.20	-2.18	-6.33	-14.21	12.61	9.24	9.24	3.43m
OFI ISR	20.11	29.77	39.45	2.27	12.18	-28.54	6.32	0.12	0.12	44.20m
OTPL	5.21	6.32	7.14	0.91	0.89	0.86	6.67	11	11	65.18m

Table19 presents the percentage changes in sectoral output, and trade by region under the SAFTA liberalization. The percentage changes in industry output in Pakistan's , as shown in panel

(a) of Table 19, the performance of the Textile and agriculture sector is remarkable, reporting about 7.9 and 8.5 percent increase, due mainly to the advantages by the cheaper labor and quality of yarn in case of textile garments. The industry output of Auto (3 percent), Pharma (-4 percent), decreased and Insurance (2 percent) decreased as well as Logistics (1) decreased. If Pak-India trade will restore we will win the race in Textile, Agriculture, and auto parts.

The removal of import tariffs under the SAFTA will adversely affect India's domestic output of Agriculture(8 percent), and Textile 11 percent.

As can be seen from panel (b) of Table 19, impact on Import of Pakistan there is a substantial increase in import in Pharmacetical , and tansport and logistics import basket. The overall import bill decreased by 11 percent.

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Conclusions

The simulation results presented and analyzed here demonstrate the importance of experimental designs, and the usefulness of the global CGE modeling framework for examining the impacts of the different types of trade policy reforms for Pakistan. The results suggest that Pakistan would experience the highest welfare gain if under the combined policy reform of the SAFTA cum 15 percent uniform external tariffs while the SAFTA on its own gives the second highest welfare gains. SAFTA allows the participating countries to achieve larger economies of scale in production, attain specialization, increase competitiveness and diversify their export basket, thus assisting domestic economic reform. Therefore, harmonizing economic policies among neighboring countries must receive higher priority in the policy making process. Although, simulation results are highly sensitive to the underlying data and assumptions regarding the reference scenarios, the results clearly provide an assessment of the implications of SAFTA. According to the simulation results suggests that there have a positive impact on PAK-INDIA trade on GDP, EXPORT, and IMPORT under various scenarios, of tariff rates should applied like, MFN. 15 %, and 10%. Pakistan's has welfare gain of tariff rate 15 % and 10 % respectively but on 8% tariff results shows that there will be negative impact on the selected sectors.

References

1. Centre for Monitoring Indian Economy. (2004). Annual report on
2. Corporate Sector.
3. Government of Pakistan (Various Issues). Census of Manufacturing Industries, Islamabad: Federal Bureau of Statistics.
4. Government of Pakistan (Various Issues). Economic Survey, and Islamabad: Economic Advisor's Wing, Ministry of Finance.
5. Government of Pakistan (Various Issues). Monthly Statistical Bulletin, and Islamabad: Federal Bureau of Statistics
6. Government of Pakistan (Various Issues). Pakistan Custom and Tariffs year Book Islamabad: Central Board of Revenue (CB).
7. Government of India, Annual Report 2003-04, Department of
8. Commerce and trade.
9. Pakistan gulf economist December. (2002). report By M.E JALBANI, Director, EPB.
10. Government of India, (Various Issues). Economic Survey, New Delhi: Economic Division, Ministry of Finance.
11. Government of India, directorate General of foreign Trade, Ministry of Commerce.
12. International Financial Statistics, CD-ROM. (2004). International Monetary Fund, Washington DC.
13. Ju, Jiandong and Kala Krishna. (1998). Firm Behavior and Market Access in a Free Trade Area with Rules of Origin. *NBER working Paper*, No. 6857.
14. Panagariya, A. (1994). East Asia and the New Regionalism. World Economy, 17:6, 817-39.
15. Panagariya, A. (1995). Rethinking the New Regionalism', Paper Presented at the UNDP World Bank Trade Expansion Conference, January, World Bank, Washington DC.
16. Panagariya, A. (2000). Preferential Trade Liberalization: The Traditional Theory and New Developments. *Journal of Economic Literature*, 38, June 287-331.
17. Purcell, Garry. (2004a). Analyzing the Economic Welfare Consequences of A Fare Trade Agreement: Partial Equilibrium Methods for Industry Level Studies, Manuscript Presented at World bank Dhaka Office.
18. Purcell, Garry. (2004b). An India-Bangladesh Free Trade Agreement? Some Potential Economic Costs and benefits, presented during the workshop held at World Bank, Islamabad Office.
19. Summers, L. (1991). Regionalism and the World Trading Systems, Federal Reserve Bank of Kansas City, Policy Implementation of Trade and currency zones