The Prospects of Revival of SAFTA in South Asia: An Indian Perspective

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Abstract: Regional cooperation has become integral for nations in South Asia for addressing the grave challenges and they are also aware about the strategic geo political advantage they possess and the potential of becoming a regional force in future that can drive the world trade. This has led to the formation of the South Asian Association for Regional Cooperation (SAARC) in 1985. But since its formation the group has been confronted with various kinds of problems because of the ever changing dynamics in this region. Even the external players have an interest in the area because of its potential and try to influence the SAARC. Against this backdrop, the objective of the study is to quantify the impact of revival of SAFTA in South Asia on the member nations with special reference to India. For addressing this issue, current study employs CGE modeling and assumes perfect competition in goods and labor market. It uses *Armington* assumption for its utility functions and Cobb Douglas for Production function. Proposed model divides the region into SAARC countries and 6 other parts. An experiment has been conducted and tariff has been removed from heavy and light manufacturing sector in SAARC region. The result indicates that benefits of the agreement are more than substantial. But there is a need to cope up with the challenges of regional conflict and promote a vibrant identity of South Asia as a powerful trading bloc.

INTRODUCTION

The time is right to shift the centre of gravity from the West to Asia because of economic dynamism and seismic change in the global economies of nations of South Asia. Yet the region, which has been blessed with abundant natural and human resource, is threatened by the specter of rupturing the social fabric by large scale poverty, religious extremism and nuclear holocaust. This has led to the need for constant interaction between the nations falling in South Asia with the rest of the world. Regional cooperation has become integral for these nations for addressing the grave challenges and they are also aware about the strategic geo political advantage they possess and the potential of becoming a regional force in future that can drive

world trade. This led to the formation of the South Asian Association for Regional Cooperation (SAARC) in 1985.

But since its formation the group has been confronted with various kinds of problems because of the ever changing dynamics in this region. There were various measures taken in early 1980s by the government of these countries for promoting a common regional identity and advocating co-operative growth strategy for better utilization of resources in the region. "According to the SAARC Charter, member states are desirous of peace, stability, amity and progress in the region through strict adherence to the principles of the United Nations Charter and non-alignment, particularly respect for the principles of sovereign equality, territorial integrity, national independence, non-use of force and non-interference in the internal affairs of other states and peaceful settlement of all disputes."

The charter was signed by Sri Lanka, India, Nepal, Pakistan, Maldives, Bhutan and Bangladesh in 1985 in the capital of Bangladesh. Over the years the group has tried to focuses on several issues of regional importance including trafficking in drugs and humans, trade and economic cooperation, shaping a new identity for signatories, environment and sustainability, science and information technology, energy and biotechnology, women and youth, health and population, agricultural and rural development, and fighting the nuisance of terrorism. Notwithstanding its intensions, the bloc has become a target of regional conflicts. It has been, time and again, criticized for its failure to build an effective identity in the region. The conflicts are prominent in the region and bilateral interests have become the biggest obstacle in the way of successful functioning of the bloc. Even the external players have an interest in the area because of its potential and try to influence the SAARC. The influence cannot be minimized as in this globalized world there are strong inter connected and linkages among nation states and no organization can survive and grow in isolation. South Asia is no exception. The power politics of the neighboring region has tried to influence this bloc directly or indirectly and has led to promotion of bilateral interests and conflicts in the region.

REVIEW OF LITERATURE

There are numerous studies on India's Preferential Trading Areas involving both developed and developing countries since the mid-2000s (Singapore, South Korea, and South Asian Association for Regional Cooperation (SAARC), Asia-Pacific Trade Agreement, Japan and Malaysia.) Some are comprehensive in nature, which go beyond trade liberalization in manufactured goods to cover liberalization in agriculture, trade, services, investment, intellectual property, etc. Apart from the Association of Southeast Asian Nations (ASEAN) and Sri Lanka with which there are ongoing negotiations on investment and services, the India-European Commission FTA is under negotiation since 2007 and the India-European Free Trade Association FTA is under negotiation since 2008 which also include services and investment.

There are some papers that discuss the expanding coverage of India's recent PTAs beyond goods market access to include liberalization in agricultural and services trade. Over the past decades various techniques have been employed to measure the impact of the Regional Trade Agreements (RTAs). These techniques include single equation regression to large scale multi country, multi- sectoral Computable general equilibrium (CGE) models. Baldwin and Venables (1995) broadly classify all these techniques into econometric analysis and CGE models.

In the year 2009 two important studies, one by Pant and Sadhukhan and another by Joseph were published. The former focused on measuring the impact of Regional Trade Agreements on Indian exports if India is not a part of the agreement by using gravity model and concluded that India is immune to such agreements. The later study used dynamic CGE modeling and assessed the potential of plantation sector in ASEAN and India and concluded that India would be significantly affected and there is an urgent need for inculcating willingness for institutional reforms at various levels to facilitate the emergence of a vibrant system of innovation and production that involves the coordinated actions of different stakeholders.

CGE Modeling and SAARC

GTAP CGE model has been employed by various authors to examine and quantify the impact of any agreement on the member states. Few of the studies encompassing SAFTA have been mentioned below. Pigato *et al.* (1997) in their study employ GTAP CGE model, by using database version 3, when the region was divided in to two parts, India and Rest of South Asia. They used two policy scenarios; one was preferential trade liberalization and second was unilateral liberalization. India benefits more in unilateral liberalization than the first scenario because the protection in South Asia is lower than in India. The benefit of South Asia is more in the first scenario as they get an access to highly protected Indian market. Tennakoon in his study in 2000 uses CGE model and employs GTAP database version 4 for running the simulations. The study is conducted from Srilankan perspective and involves 3 Scenarios viz. impact of unilateral, bilateral and regional liberalization on Srilanka. He concluded that overall SAFTA generates benefit for Srilanka and India but there is loss of welfare for Rest of South Asia. Sriwardana in 2001 and 2004 use GTAP version 5 which included data for Bangladesh, India, Sri Lanka and Rest of South Asia. He conducts two experiments one involving a FTA and another custom Union and concludes that Trade liberalization is beneficial to these countries in terms of GDP and welfare gains but custom union is better than FTA.

Bandara and Yu in 2003 tried to examine whether SAFTA is a desirable Preferential Trade Arrangement (PTA) by using GTAP database version 5. Results indicate that India is the biggest gainer from both unilateral and preferential trade liberalization. Bangaldesh loses in preferential trade liberalization while Rest of South Asia would lose in unilateral trade liberalization. An extended FTA involving SAFTA and ASEAN would lead to adverse terms of trade for the former and economic gains for the latter. In the same year another study was conducted by Asaduazzaman et al. by using the same database version 5. They concluded that SAFTA generates positive outcome for it members including Bangladesh which is in contradiction to the previous mentioned study. Zero tariffs for the region are considered as the best scenario. Mohanty in 2005 uses GTAP version 6 to analyze the impact of SAFTA and concludes that India is the biggest gainer followed by Sri Lanka. He recommends faster implementation of SAFTA for reaping economic benefits of the same. Another Study by Siriwardena and Yang (2007) examined the effects of a proposed free trade agreement between India and Bangladesh by using GTAP model and concluded that both Bangladesh and India will be significantly benefited with this FTA. Another Study by Hossain and Selim in the same year concluded that India is the biggest gainer of SAFTA followed by Pakistan and Sri Lanka. It leads to lesser welfare gains to Bangladesh which may not be acceptable for the nation as it leads to adverse terms of trade. Kumar and Saini in 2009 try to evaluate Pareto optimality of SAFTA and concluded that Bangladesh losses on welfare ground. Other nations gain because of improvement in terms of trade for these nations.

Based on the past literature it can be concluded that there are mixed results on the issue of trade liberalization process in South Asia. This study focuses on the revival and future potential of SAFTA in South Asia by reviving its trading commitments of a free trade area and also brings into picture the negative impact of inter-state conflicts and regionalism.

RESEARCH METHODOLOGY

The objective of the study is to quantify the impact of revival of SAFTA in South Asia on the member nations with special reference to India. For answering this question the study employs CGE modeling. It works on the principle of Walrasian general equilibrium which was introduced in the nineteenth century (Shovan and Whalley, 1992) in which demand and supply are balanced across all of the interconnected markets in the economy. The models basic structure has been formalized by Arrow and Debreu (1954) using actual economic data to solve for the levels of supply, demand and price that support equilibrium across a specified set of markets.

Many researchers have adopted this tool for policy analysis concerning welfare and distributional impacts of new policy initiatives, fiscal reforms, new tax structure (Burnett et al 2001; Gunning and Keyzer 1995), environmental policy implications (Goulder 2002, Nam et al 2010) and international trade (Shields and Francois 1994; Harrison et al 1997; Bach and Martin 2001; Jaswal & Narayanan 2017).This type of modeling takes an *ex-ante* approach, which involves quantifying the future effects of a new policy. It measures the domino effect arising from the changes taking place in one sector on the other sectors. These models are used to specially measure the effects of trade policy changes on the welfare levels and the distribution of income across multi-country regions.

GTAP has been not frequently used to address the issue of South Asia as in the previous versions of the database not all the SAARC countries were treated equally. Earlier the region was aggregated and individual impact assessment was not possible until 1998. In the latest database all the nations of SAARC (except for Maldives and Bhutan) are now represented individually. But since their contribution in world trade is insignificant, it would not affect the analysis significantly.

The model used in the study

The model used in the study assumes perfect competition in goods and labour market. It uses *Armington*(1969) assumption for its utility functions and Cobb Douglas for Production function. This model divides the region into SAARC countries and 6 other parts.

- India
- Pakistan
- Srilanka
- Bangladesh
- Nepal
- Rest of South Asia(ROSA)
- Rest of Asia

- North America(N America)
- European Union
- Middle East and North Africa (MENA)
- Sub Saharan Africa (SSA)
- Rest of the World

Sectors in the model: The model incorporates all the 3 basic sectors of the economy. The manufacturing sector is divided into 2 categories as the tariff rates significantly differ between the two types of manufacturing – light and heavy.

- Agriculture
- Light Manufacturing
- Heavy Manufacturing
- Services

Inputs in the model

- Land
- Skilled Labor
- Unskilled Labor
- Natural Resources

Tariffs

In this model only obstacle for a free trade is the tariff barriers. The study excludes the non tariff barriers as they are difficult to model. For modeling the later, advolerum equivalents have to be calculated, thus making them tariff as well. The next step to solve the model is calibration. It is done by solving the model backwards and getting the values of the parameters of utility and production function.

Data

The GTAP database 9 has been used for analysis. It consists of 140 regions and 57economic sectors for the three benchmark year: 2004, 2007 and 2011 (Aguiar et al. 2016).

This database uses 2011 as the reference year and includes intermediate inputs among sectors and bilateral trade in goods and services, taxes and subsidies levied by governments of these countries.

Experiment Design

Amongst all the regions SAARC has not been able to perform as expected and due to the differences of economy and trade policies within nations, implementation of Free Trade Agreement has not been possible in this area. Many analysts have been extremely apprehensive regarding opening up trade within the region as they feel it might lead to economic dumping by larger countries and death of local markets in smaller ones.

However, hypothetically it is assessed that if entire trade barrier is removed even on listed commodities, what would be the impact of trade within the region and between nations on a regional basis and not bilaterally. It would also be possible to have an assessment of the greater impact it will make on the regions immediate of South Asia as well as regions that have been dominant in world exports.

The principal sectors which remain very sensitive are agriculture and manufacturing where tariff remain to be very high. For example in the recent Prime Ministerial visit from Australia in 2017, there was a high probability for signing of a Free Trade Agreement between India and Australia. But India was not ready to budge on agricultural tariff barriers. Presently however the tariff barriers on Services stand minimal.

The study considers a policy scenario of reducing the tariff between India and SAARC (both on Exports and Imports) in *Light and Heavy Manufacturing together. Tariff on services is not eliminated as it is already very insignificant as compared to other sectors. Tariff on agriculture has not been removed as it is the most contentious issue in Indian politics and most protected sector in India.* Manufacturing sector is protected in India and enjoys high tariff regime. The impact of this tariff reduction is measured on *Exports, Percentage change in industrial output, Employment, and Welfare* of these regions taken for consideration (Narayanan, Aguiar, and McDougall (2015).

RESULTS AND DISCUSSION

The present exercise is to understand the basic principle of the applicability of SAFTA on Manufacturing Sector.

Experiment: Removal of tariff on light as well as heavy manufacturing sector

Table 1
Percentage change in exports of SAARC nations

Sectors	India	Pakisitan	Srilanka	Bangladesh	Nepal	Rest of South Asia
Agriculture	-1.55	-3.96	-1.50	0.96	-2.54	3.31
Light Manufac.	1.58	3.90	3.29	3.71	7.32	10.76
Heavy Manufa	1.24	9.29	9.29	4.13	32.94	22.91
Services	-1.07	-2.10	-1.29	0.00	-1.64	1.95

Source: Author's Compilation

As can be seen from table 1 there would be an increase in exports of manufacturing sector at the cost of agriculture and services in India. Similar trends can be seen in Pakistan and Srilanka and Nepal. But for Bangladesh and rest of south Asia, there is an increase in exports of all the sectors involved in the study.

Change in GDP is calculated by using the formula Post GDP-Pre GDP. The units are in US Million Dollars. Pre GDP and Post GDP are calculated using software. As can be seen there will a positive impact on India and Pakistan in terms of GDP. It is positive for India and Pakistan but negative for the rest of the countries.

Table 2
Change in GDP (in million US $)

Countries	Pre GDP	Post GDP	Change
India	1880101	1880746	645
Pakistan	213686.2	213737.8	51.64
Srilanka	59178.04	59131.77	-46.27
Bangladesh	111905.7	111816.8	-88.88
Nepal	18850.36	18843.3	-7.06
Rosa	21873.94	21831.69	-42.25
Rest of Asia	17412388	17412244	-144
NAmerica	18490694	18490678	-16
EU_28	17666264	17666164	-100
MENA	3988132	3988112	-20
SSA	1460651	1460639	-11.88
Rest of World	10153420	10153399	-21

Source: GTAP Simulation Table

Table 3
Welfare decomposition (in millions US dollar)

	Welfare	Allocative efficiency	Terms of trade	Investment saving	Total
1	India	645	1045	399	2089
2	Pakistan	51.7	205	144	400
3	Srilanka	-46.2	-24.6	-44	-115
4	Bangladesh	-88.7	-172	-18.6	-279
5	Nepal	-6.98	-21.9	-20.3	-49.2
6	Rosa	-42	-41.2	-116	-199
7	Rest of Asia	-145	-632	-124	-900
8	N America	-15.5	-147	-79.7	-242
9	EU_28	-99.4	-129	-54.2	-282
10	MENA	-19.9	-74.4	-36.9	-131
11	SSA	-11.9	-11.5	-9.37	-32.8
12	Rest of World	-20.8	0.803	-41.9	-61.9
	Total	201	-2.66	-1.68	196

Source: Author's Compilation

There will be a major improvement in India's terms of trade and would lead to welfare gains for both India and Pakistan. It is very interesting to note that if tariff of two sectors are removed, there is an overall increase in world welfare. The total equivalent variation welfare effect of model is broken down in to three major effects. It is a money metric measure of the value of effects of price changes on real consumption and savings in the region. Allocative efficiency effect is the excess burden of taxes imposed in the nations.

India and Pakistan will be benefited significantly as their allocative efficiencies will improves in comparison of the other regions. Terms of trade effect is due to changes in the world prices of exported goods and services, relative to its world prices of imported goods and services. As can be observed from the table India and Pakistan gain in terms of trade and the rest of the participants are at loss. Investment saving terms of trade is due to change in prices of domestically produced capital investment goods relative to the price of savings in the global bank. Only India and Pakistan gain in terms of IS efficiency and others are at loss. Overall there is a positive welfare impact for India and Pakistan where India gains the lions share.

Table 4
Percentage change in industrial output (qo)

qo	India	Pakistan	Srilanka	Bangla-desh	Nepal	ROSA	Rest of Asia	N America	EU_28	MENA	SSA	Rest of World
Agri	-0.12	-0.28	-0.24	-0.07	-0.71	0.1	0.01	0.01	0.01	0.01	0.01	0.01
Light Mnfc	0.21	0.29	0.24	0.3	-5.1	-1.48	-0.02	0	-0.01	0.01	-0.01	-0.02
Heavy Mnfc	0.08	-0.34	-0.41	-1.57	-0.66	5.43	0	0	-0.01	-0.04	0	-0.01
Services	0	0.02	0.08	-0.01	0.73	-0.11	0	0	0	0	0	0

Source: GTAP output

After removing tariff from manufacturing, it was found that there was an increase in output of light and heavy manufacturing and slight fall in the rest two sectors. For Srilanka there is a fall in agricultural output but significant increase in heavy and light manufacturing sectors.

Bangladesh will gain significantly in light manufacturing but there is a fall in output in other sectors. Same is the case for other countries. Only India will benefit in light as well as heavy manufacturing at the cost of agriculture. For Nepal the industrial output will fall for light and heavy manufacturing and but there is an increase in output of service industry. The fall of Nepal is compensated by increase in these two sectors in Rest of South Asia.

Table 5
Percentage Change in Demand for Endowment (qfe)

qfe[INDIA]	Agriculture	Light Manufacturing	Heavy Manufacturing	Services
Land	0	0.47	0.41	0.4
UnSkLab	-0.19	0.2	0.07	-0.01
SkLab	-0.19	0.22	0.09	0.01
Capital	-0.19	0.21	0.07	0
qfe[PAKISTAN]				
Land	0	0.92	0.64	0.83
UnSkLab	-0.38	0.35	-0.28	0.08
SkLab	-0.37	0.36	-0.27	0.09
Capital	-0.39	0.28	-0.36	-0.01
qfe[SRILANKA]				

qfe[INDIA]	Agriculture	Light Manufacturing	Heavy Manufacturing	Services
Land	0	0.89	0.61	0.85
UnSkLab	-0.4	0.18	-0.48	0
SkLab	-0.38	0.27	-0.38	0.11
Capital	-0.39	0.23	-0.42	0.06
qfe[BANGLADESH]				
Land	0	0.36	-0.47	0.23
UnSkLab	-0.11	0.31	-1.58	-0.01
SkLab	-0.12	0.28	-1.61	-0.05
Capital	-0.11	0.33	-1.56	0.01
qfe[NEPAL]				
Land	0	-0.29	1.84	2.54
UnSkLab	-1.18	-5.75	-1.29	0.04
SkLab	-0.94	-4.72	-0.18	1.26
Capital	-1.05	-5.21	-0.71	0.68
qfe[ROSA]				
Land	0	-0.99	2.03	-0.4
UnSkLab	0.19	-1.37	5.56	0
SkLab	0.17	-1.45	5.47	-0.09
Capital	0.16	-1.49	5.42	-0.14

The resource allocation of skilled & unskilled labor and capital in India will improve significantly in light and heavy manufacturing sector but there will be a slight fall in services and agricultural sector. There will be an increase in resource endowment for Pakistan in light manufacturing sector. Light manufacturing sector will witness an inflow of capital and skilled & unskilled labor in Srilanka and Bangladesh. As opposed to this Nepal will face loss of resources in both heavy and light manufacturing sector. Increase in resource endowment in agriculture and heavy manufacturing will take place at the cost of light manufacturing and services.

CONCLUSION

Though the study is hypothetical in nature but the trade figures remain original, impact assessment as well remains to be realistic. It needs to be mentioned here that while analyzing the agreement, the impact on smaller countries (in terms of GDP) in the region, especially Afghanistan, Bhutan and Maldives remain to be negligible. The assessment is visible within the five neighboring countries i.e. India, Pakistan, Bangladesh, Srilanka and Nepal.

As can be inferred from the analysis , benefits of the agreement are more than substantial. But there is a need to cope up with the challenges of regional conflict and promote a vibrant identity of South Asia as a powerful trading bloc. All the countries constituting SAARC have registered decent growth in the past few years. The external players have shown interest in South Asia and there is vast potential for foreign investment. The region is becoming important for political dialogue at international forums. The regional

Cooperation could lead to a new form of sustainable and equitable growth in the long run. This would involve restructuring the growth process so that the weaker nations are not left behind. This also calls for innovative initiatives to develop new institutions for the use at national or regional level. The results also show that the agreement will enhance scope of employment in the agrarian and light manufacturing sectors where there would be a probable movement as well as creation of employment for labors from other sectors. This is specifically for the case of India and the same could be reflected in other nations as they all have similar agrarian base.

There is a need to focus on the benefits of the agreement for India. India should refrain itself from signing bilateral agreements with countries in Asia and try to revive SAFTA. India is a regional heavy weight and should understand the need for a stable region for sustaining economic growth. India should understand that the biggest beneficiary from this trade agreement is India and Pakistan. The neighbors especially Bangladesh is also going to be benefited in few areas such as light manufacturing and heavy manufacturing. The agreement would lead to trade diversion from America and European continent and would benefit countries of South Asia. India should invest heavily in its neighbors for strengthening economic ties following the path shown by European Union.

The question which we need to answer here is whether we can grasp this moment and together chart out a new path towards peace and regional cooperation. In all the above preferential trading case scenarios in South Asia there is evidence of trade diversion from small countries and in none of the scenario there emerges a welfare gain on reciprocal basis for all the countries in the region. Liberalization in these phases has differential welfare impact on the region. But this is also true that even in European Union; initially the small east European countries faced problems and lost to the bigger ones. For the nation state to survive, the bigger economies have obligations to pull out the losers or smaller ones. Hence welfare gains may not be the basis of deeper trade policy coordination, still this corporation is desired for other reasons. The results do presents a larger volume of intra –regional trade in South Asia. Establishing closer trade policy measures would lead to decline in political frictions in this region. This may further lead to reduction in military expenditure and could turn out to be a peace dividend which can outweigh the direct benefits. The imbalance in the smaller nations can be resolved only through deliberation and discussions.

The benefits for a future economic cooperation are immense. The immediate priority of SAARC should be to promote and facilitate trade integration by removing all trade barriers and improving the infrastructure in these nations. The cross border transactions in these nations should be depoliticized and should be based purely on commercial basis. Enabling international players and investors to participate in the development is a better way for promoting regionalism in the area. It is the moral obligation of international financial institutions like Word bank and IMF to provide technical and financial support to the smaller countries by mobilizing external financing so that the gap can be easily filled. They need to understand that resolving all political and social conflict is not a precondition for meaningful cooperation in the region. The reverse can be also true. Because of economic cooperation the political and social problems of the area can be resolved by inculcating trust and goodwill among nations.

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