

A Measurement of India's Trade Intensity With Saarc Countries

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Abstract

South Asian Association for Regional Cooperation (SAARC) was established to enhance political and economic relations within the region and outside the region. India's complementary economic structure provides significant gains within the trade block. In this context, this paper attempts to examine existing status of India-SAARC trade, their mutual trade, and thereby measuring trade intensity between India and SAARC. The present study is focus on only the founder member countries of South Asian Association for Regional Cooperation. SAARC consist less developing countries except India, Pakistan and Bangladesh. Due to the small size of the economies economic activities are at their low level and there by trade volume is also low. On 7th December 1995 SAARC Preferential Trading Arrangement (SAPTA) was come into existence and World Trade Organisation (WTO) also established in the same year, therefore present study has been divided into two time periods that is before 1995 (1987 to 1995) and after 1995 (1996 to 2006). Study revealed that India's mutual trade and trade intensities are increasing over the period of time, study explores that after the existence of SAARC Preferential Trading Arrangement (SAPTA) and establishment of World Trade Organisation, mutual trade and trade intensities of export and import are increasing and also more than the desired level.

1. INTRODUCTION

On December 8th, 1985 South Asian Association for Regional Cooperation (SAARC) was established by India, Pakistan, Bangladesh, Sri Lanka, Nepal, Maldives and Bhutan. Afghanistan was accepted as the eight member of SAARC on November 13, 2005. Therefore present study included only the founder member countries of South Asian Association for Regional Cooperation. The manifesto of SAARC is declared that the people of South-Asia work together towards finding to their common problems in a sprit of friendship trust and understanding and to create an order based on mutual respect, equality and shared benefits.

The primary objective of the SAARC is to accelerate the progress of economic and social development in member countries through collective action in agreed areas of mutual cooperation. SAARC has eight objectives and three principles which are based on equitable growth of the region. To achieve these objectives South Asian Association for Regional Cooperation (SAARC) has clear cut institutional framework. SAARC summit is the apex body in the institutional framework and also final decision taken by the summit. On January 1987 SAARC secretariat came into existence in Katmandu. To increase the equitable growth of the region, SAARC eradicating the social problems by

their SAARC designated plans. To promote socio-economic and cultural development in South-Asia and develop the international relations SAARC regional bodies were created two broad categories (i) South Asian Association for Regional Cooperation (SAARC) Regional Apex Bodies (II) South Asian Association for Regional Cooperation (SAARC) Regional Bodies. On July 1991 a high committee on Economic cooperation was established to maintain the economic and trade related issue. Inter-Governmental group was established to improve the trade liberalization among SAARC countries on December 1991. During the 7th SAARC summit SAARC Preferential Trading Arrangement (SAPTA), was signed by the council of ministers in Dhaka on 11th April 1993. The SAARC Preferential Trading Arrangement (SAPTA) was come into existence on 7th December 1995. SAARC has the special arrangement for LDC's. Step by step SAARC moved towards the SAFTA. In 2004 SAARC economies has established South-Asian Free Trade Agreement (SAFTA) to reduce import duties to 20 per cent by 2006 and between 0-5 per cent by 2013 and allowed less developed countries by 2016. The population of India was 1151.75 million in the year 2006, which is highest in the SAARC; Maldives population was 0.3 million in the same year which is lowest in the group. FDI inflow in India was US \$ 19662 million in the year 2006 highest in the block, while US \$ 6.1 million received by Bhutan, which was lowest in the group. Total export of goods of India was US \$ 123617 million and US \$ 135 million worth good exported from Maldives in the year 2006. The total import of good was 166695 US \$ million of India, while lowest imports made by Bhutan (US \$ 419.63 million) in the year 2006. India's merchandise exports to SAARC were about US\$ 1701 million in 1995-96, which increased to US\$ 6469.5 million in 2006-2007. From 1995-96 to 2006-07 trade has increased more than 73 per cent. On the other hand

India's imports from SAARC were also increased from US\$ 256.5 million in 1995-96 to about US\$ 1507 million in 2006-07. India's imports from SAARC countries increased more than 82 per cent over the study period. Over the study period India's import from SAARC increased with more percentage as compare to exports to the member countries of the SAARC.

2. OBJECTIVE OF THE STUDY

1. To analyze India's Trade Intensity index of export and import with South Asian Association for Regional Cooperation (SAARC) countries.
2. To analyze India's mutual trade with South Asian Association for Regional Cooperation (SAARC) countries.

3. RESEARCH METHODOLOGY

A measure of trade relationship among partners is trade (both exports and imports) intensity. Hence trade intensity indices on both exports and imports sides are computed for India vis-à-vis SAARC member countries. On 7th December 1995 SAARC Preferential Trading Arrangement (SAPTA) was come into existence and World Trade Organisation (WTO) also established in the same year, therefore present study has been divided into two time periods that is before 1995 (1987 to 1995) and after 1995 (1996 to 2006).

4. INDIA'S TRADE INTENSITY EXPORT INDEX

Mutual trade of India has been calculated with SAARC member countries. The India's trade intensity of export is calculated as the intensity of country j's trade with another country i, which is equal to the ratio of i's share in j's global exports to its share in total global imports, less j's global imports. Economic complementarily, geographical proximity and political-historical ties affect the

intensity of trade. Export intensity index of India's with SAARC countries is computed as follows :

$$\text{Formula : } I_{Xij} = [(X_{ij}/X_i) / (M_j/M_w - M_i)] * 100$$

Here,

X_{ij} = The exports of country i to trading partner j ,

X_i = Total exports of country i

M_j = Total imports of country j

M_w = Total world imports

M_i = Total imports of country i

5. INDIA'S TRADE INTENSITY IMPORT INDEX

Similarly, the India's trade intensity of import indices are calculated as the intensity of j 's import trade with another country i , which is equal to the ratio of j 's share in i 's global imports to j 's share in total global exports less j 's global exports. India's trade intensity of import with SAARC countries have been measured by the following formula.

$$I_{Mij} = [(M_{ij}/M_i) / X_j / (X_w - X_i)] * 100$$

Here,

M_{ij} = Imports of country i from trading partner country j ,

M_i = Total imports of country i

X_j = Total exports of country j

X_w = Total world exports

X_i = Total export of country i

The value of indices as zero implies that there is no trade relationship between the two partner countries. An export intensity of more (or less) than 100 indicates that country j is exporting more (or less) to country i than might be expected from that country's share in total global trade. Similarly, import intensity of more (of less) than 100 indicates that country j is importing more (or less) than might be expected from that country's share in total global trade.

6. INDIA'S MUTUAL TRADE DEPENDENCE WITH SAARC COUNTRIES

It is relevant to discuss mutual trade of India with South Asian Association for Regional Cooperation (SAARC) member countries, because India's trade is increasing in the SAARC. India's imports from individual country of SAARC as percentage of their total export have been calculated for two time period i. e. before and after the establishment of WTO and SAARC Preferential Trading Arrangement (SAPTA). Average of this ratio is highest for Nepal (11.39 per cent), followed by Bhutan (7.72 per cent), Maldives (1.18 per cent), Bangladesh (0.97 per cent), Pakistan (0.93 per cent) and Sri Lanka (0.88 per cent). After the establishment of WTO and SAARC Preferential Trading Arrangement (SAPTA) this ratio of India is increasing. The average of ratio is highest for Nepal (35.52 per cent), followed by Bhutan (25.88 per cent), Sri Lanka (3.09 per cent), Bangladesh (1.24 per cent), Pakistan (0.98 per cent) and Maldives (0.69 per cent). On the other hand India's exports to each SAARC country as percentage of their total import are also increasing over the period. The average of this ratio before the establishment of WTO and SAARC Preferential Trading Arrangement (SAPTA), was highest for Nepal (10.64 per cent), followed by Bangladesh (10.58 per cent), Sri Lanka (6.37 per cent), Maldives (4.98 per cent), Bhutan (4.92 per cent) and Pakistan (0.49 per cent). In the second time period average of this ratio was highest for Nepal (22.18 per cent) and lowest for Pakistan (2.16 per cent). Over the study period mutual trade between India and the other SAARC member is increasing.

Table 1: India's imports from individual country of SAARC as percentage of their total exports India's mutual trade with each SAARC country

S. No.	Years	Bangladesh	Bhutan	Maldives	Nepal	Pakistan	Sri Lanka
1	1987	1.05	0	0	20.9	0.55	0.63
2	1988	0.69	0	0	12.33	1.13	1.29
3	1989	0.9	0	8.72	0.19	0.66	0.93
4	1990	1.04	1.15	0	20.84	0.87	1.11
5	1991	0.34	0.79	0	10.38	1.34	0.57
6	1992	0.37	1.81	0.25	6.59	1.88	0.6
7	1993	0.7	4.59	0.87	7.28	0.64	0.72
8	1994	1.3	27.57	0.42	9.93	0.74	0.96
9	1995	2.3	33.59	0.4	14.03	0.54	1.09
	Total	8.69	69.5	10.66	102.47	8.35	7.9
	Avg.	0.97	7.72	1.18	11.39	0.93	0.88
S. No.	Years						
1	1996	1.55	33.7	0.34	16.49	0.43	1.1
2	1997	1.05	11.38	0.29	23.01	0.53	0.65
3	1998	1.21	5.65	0.13	30.06	2.73	0.78
4	1999	1.43	15.54	0.63	30.8	0.89	0.96
5	2000	1.26	20.49	0.26	32.87	0.73	0.83
6	2001	0.97	22.55	0.53	49.4	0.71	1.4
7	2002	1.02	28.57	0.33	44.59	0.46	1.93
8	2003	1.1	39.43	0.36	40.67	0.49	3.79
9	2004	0.73	38.8	0.49	44.73	0.71	6.57
10	2005	1.37	34.39	1.93	42.08	1.16	9.1
11	2006	1.98	34.13	2.29	36.05	1.9	6.84
	Total	13.67	284.63	7.58	390.75	10.74	33.95
	Avg.	1.24	25.88	0.69	35.52	0.98	3.09

Table 2 : India's exports to individual country of SAARC as percentage of their total import India's mutual trade with each SAARC country

S. No.	Years	Bangladesh	Bhutan	Maldives	Nepal	Pakistan	Sri Lanka
1	1987	5.88	0	3.12	14.19	0.23	4.27
2	1988	6.57	0	5.25	11.76	0.35	5.02
3	1989	8.34	0	4.29	8.7	0.42	2.85
4	1990	9.36	2.7	4.88	7.25	0.5	5.63
5	1991	10.54	1.44	3.45	10.19	0.46	6.2
6	1992	10.59	1.76	4.62	9.64	0.52	8.22
7	1993	11.76	11	4.69	11.43	0.68	8.16
8	1994	14.82	12.11	7.9	10.36	0.61	8.54
9	1995	17.32	15.31	6.66	12.21	0.68	8.4
	Total	95.18	44.32	44.86	95.73	4.45	57.29
	Avg.	10.58	4.92	4.98	10.64	0.49	6.37
1	1996	13.83	17.23	3.92	11.09	1.29	9.75
2	1997	12.01	9.7	2.83	10.05	1.33	9.27
3	1998	14.82	7.18	2.7	9.88	1.08	8.23
4	1999	8.44	4.18	2.06	10.12	0.98	9.31
5	2000	11.61	0.63	7.19	8.85	1.89	9.87
6	2001	12.32	3.98	7.77	14.44	1.48	11.73
7	2002	15.12	19.84	9.17	24.58	1.98	16.76
8	2003	18.34	35.95	10.21	40.18	2.4	21.97
9	2004	14.62	20.58	8.43	38.95	3.12	16.63
10	2005	13.31	25.68	10.31	37.78	3.17	25.38
11	2006	11.27	13.7	8.43	38.04	5.06	24.44
	Total	145.69	158.65	73.02	243.96	23.78	163.34
	Avg.	13.24	14.42	6.64	22.18	2.16	14.85

7. INDIA'S TRADE INTENSITY OF EXPORT AND IMPORT WITH SAARC COUNTRIES

In the view of increasing mutual trade between India and SAARC member countries, it is relevant to do the study of India's trade intensity of export and import with SAARC countries. It is clear from the table (1.3 and 1.4) that India's trade intensity is increasing with SAARC member countries. Before the establishment of WTO and SAARC Preferential Trading Arrangement (SAPTA), India's average of trade intensity import index with Nepal was fairly high (1597.78), followed by Bhutan (1572.81), Maldives (157.96), Pakistan (134.72), Bangladesh (132.4) and Sri Lanka (122.34). It indicates that India's import intensity with SAARC countries are more than the desired level. After the existence of SAARC Preferential Trading Arrangement (SAPTA) and WTO, India's trade intensity import index showing increasing trend. India's average of trade intensity import index is fairly high again for Nepal (3780.96), followed by Bhutan (2675.57), Sri Lanka (287.15), Bangladesh (131.83), Pakistan (102.2) and Maldives (63.57). Study explores that after the existence of SAARC Preferential Trading Arrangement (SAPTA) and WTO, average of India's trade intensity import index has increased for Bhutan, Nepal and Sri Lanka and decreased for Bangladesh, Maldives and Pakistan. On the other hand before the existence of SAARC Preferential Trading Arrangement (SAPTA) and WTO, India's trade intensity export index was fairly highest for Nepal (1960.91), followed by Bangladesh (1896.73), Bhutan ((1234.47), Sri Lank (1149.96), Maldives (901.74) and Pakistan (89.34). India's trade intensity export index, after the existence of SAARC Preferential Trading Arrangement (SAPTA) and WTO, was fairly high again for Nepal (2751.35), followed by Sri Lanka (1920.9), Bhutan (1834.61), Bangladesh (1789.33), Maldives (848.1) and

Pakistan (270.42). Study advocates that after the existence of SAARC Preferential Trading Arrangement (SAPTA) and WTO, India's trade intensity export index has increased for Bhutan, Nepal, Pakistan and Sri Lanka while decreased for Bangladesh and Maldives.

8. CONCLUSION

India's merchandise exports to SAARC were about US\$ 1701 million in 1995-96, which has increased to US\$ 6469.5 million in 2006-2007. From 1995-96 to 2006-07 trade has increased more than 73 per cent between India and SAARC member countries. On the other hand India's imports from SAARC were also increased from US\$ 256.5 million in 1995-96 to about US\$ 1507 million in 2006-07. India's import from SAARC countries has increased more than 82 per cent over the study period. Over the study period India's import increased with more percentage as compare to exports to the member countries of the SAARC. Study revealed that India's mutual trade with SAARC member countries are increasing over the study period. Study suggests that after the existence of SAARC Preferential Trading Arrangement (SAPTA) and establishment of WTO, India's trade intensity export index has increased for Bhutan, Nepal, Pakistan and Sri Lanka on the other hand it has decreased for Bangladesh and Maldives. Study revealed that after the establishment of WTO average of India's trade intensity import index has increased for Bhutan, Nepal and Sri Lanka while it has decreased for Bangladesh, Maldives and Pakistan. India's trade intensity export index, before the the existence of SAARC Preferential Trading Arrangement (SAPTA) and establishment of WTO, less than the desired level for Pakistan and in the second study period it is more than the desired level. Over all India's trade is increasing with SAARC member countries after the existence of SAARC Preferential Trading Arrangement (SAPTA) and establishment of WTO.

Table 3: India's Trade intensity Export index with SAARC countries

S. No.	Year	India's Export intensity with Bangladesh	India's Export intensity with Bhutan	India's Export intensity with Maldives	India's Export intensity with Nepal	India's Export intensity with Pakistan	India's Export intensity with Sri Lanka
1	1987	1197.45	0	636.25	2891.67	47.68	870.43
2	1988	1351.71	0	1079.9	2419.23	72.11	1031.71
3	1989	1554.69	0	798.88	1621.06	77.84	531.58
4	1990	1744.79	503.89	909.54	1350.58	93.97	1049.17
5	1991	2052.76	281.32	672.77	1984.23	89.95	1208.4
6	1992	1980.66	329.16	864.26	1802.35	97.75	1537.11
7	1993	1973.99	1845.36	787.63	1917.41	114.68	1370
8	1994	2437.63	1991.59	1298.75	1704.64	100.58	1404.58
9	1995	2776.9	2455.49	1067.72	1957.05	109.48	1346.68
	Avg. of trade intensity Export index	1896.73	1234.47	901.74	1960.91	89.34	1149.96
1	1996	2153.98	2683.48	610.15	1726.93	201.32	1519.27
2	1997	1882.93	1521.6	444.46	1575.81	208.9	1453.5
3	1998	2406.36	1165.49	437.71	1603.41	175.13	1335.29
4	1999	1317.75	651.78	321.9	1579.2	152.29	1452.24
5	2000	1750.51	94.66	1084.59	1335	284.59	1488.47
6	2001	1733.09	559.65	1092.67	2030.61	207.92	1650.32
7	2002	1930.9	2534.85	1171.01	3140.27	252.6	2141.06
8	2003	2290.41	4489.4	1275.21	5018.53	299.15	2743.85
9	2004	1742.15	2452.93	1004.31	4641.15	372	2339.04
10	2005	1372.11	2646.64	1062.88	3893.45	326.23	2615.92
11	2006	1102.44	1380.28	824.16	3720.54	494.49	2390.94
	Avg. of trade intensity Export index	1789.33	1834.61	848.1	2751.35	270.42	1920.9

Table 4 : India's Trade intensity Import index with SAARC countries

S. No.	Year	India's Import intensity with Bangladesh	India's Import intensity with Bhutan	India's Import intensity with Maldives	India's Import intensity with Nepal	India's Import intensity with Pakistan	India's Import intensity with Sri Lanka
1	1987	138.95	0	0	2767.72	72.29	83.6
2	1988	91.89	0	0	1643.91	149	171.45
3	1989	117.4	0	1141.82	24.37	86.95	121.78
4	1990	146.95	161.92	0	2943.05	123.07	156.25
5	1991	54.43	127.58	0	1674.17	216.08	91.77
6	1992	57.97	285.36	39.75	1040.93	296.3	94.7
7	1993	105.47	688.64	129.89	1091.51	96.23	107.65
8	1994	180.54	3823.28	57.94	1376.78	102.7	132.7
9	1995	298	4350.07	52.23	1817.58	69.9	141.18
Avg. of trade intensity Import index		132.4	1572.81	157.96	1597.78	134.72	122.34
1	1996	181.94	3952.13	39.65	1933.77	49.9	129.44
2	1997	126.32	1370.012	34.42	2768.92	63.99	78.35
3	1998	146.75	683.03	16.27	3634.76	330.25	94.81
4	1999	176.49	1913.96	77.38	3794.3	109.49	118.46
5	2000	147.59	2406.47	30.97	3861.04	86.03	97.18
6	2001	115.6	2683.58	62.49	5879.1	84.47	166.54
7	2002	118.74	3333.9	38.73	5202.7	53.17	225.47
8	2003	120.01	4299.47	38.76	4434.28	52.91	413.54
9	2004	69.2	3684.05	46.56	4247.46	67.84	642.1
10	2005	104.99	2644.73	148.61	3235.66	89.5	699.96
11	2006	142.55	2459.9	165.42	2598.62	136.69	492.85
Avg. of trade intensity Import index		131.83	2675.57	63.57	3780.96	102.2	287.15

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