

# **A Short Note on Intra-trade Ratio and South Asian Regional Integration**

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**January 2020**

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Numbers have a powerful influence in creating or strengthening perceptions. Government statistics sometimes provide exaggerated information to bolster a perception of a well functioning economy. Economists may on occasion quote numbers that are supportive of a particular theory or policy, and overlook numbers that are not congenial to their arguments. Companies are known to present their accounts in a manner that would create a perception of themselves as more healthy than they actually are. Numbers may be selectively presented in a manner to support certain policies that may not be beneficial. Hence, it is essential to carefully examine the numbers to ensure that they are correct and lead to the conclusions implied.

Most essays on regional integration or economic co-operation in South Asia have a sentence something like “Intraregional trade accounts for a little more than 5 percent of South Asia’s total trade, compared with 50 percent in East Asia and the Pacific and 22 percent in Sub-Saharan Africa.” (World Bank 2018) The intra-trade ratio, i.e. the ratio of trade within the region to global trade of the region, is implicitly regarded as an index of the degree of economic integration of the region such that a 5 percent ratio for South Asia is perceived to be an indicator of a level of economic integration lower than that of another region with a higher intra-trade ratio. The comparison of these ratios creates or strengthens a perception that intra-regional trade is more beneficial than extra-regional trade, and South Asia is economically lagging behind such RTAs as ASEAN (Association of

South East Asian Nations) because of its much lower intra-regional trade. That was one of the implied messages of World Bank in the aforementioned study. To be sure many economists of the country have such a perception.

This note is intended to debunk this perception. It is argued that there is no conclusive evidence to suggest intra-trade ratio of RTAs is relevant to economic growth, and importantly, the ratio is also not a reliable indicator of regional integration. The repeated mention of the low 5 percent ratio for the South Asian countries may stoke up an urgency for action among domestic policy makers that may not actually exist.

### **Theoretical Issues and Empirical Evidence on Regional Trade**

The theory of comparative advantage developed by David Ricardo two centuries ago and subsequent analytical advancements have firmly established that free trade leads to a higher economic output or welfare for the participating countries than what would obtain in autarky. The theory holds not only in a free market environment, but also in a variety of economic structures. However, there is no such theoretical support for regional free trade arrangements. To the extent regional trade lead to more open economy it can foster economic growth as implied by Ricardo's theory, but discriminatory preferences could reduce growth. Viner (1950) famously pointed out that a regional trade area (RTA) with free or preferential trade among members benefitted the members through trade creation, but could also impose significant costs because of trade diversion. In an overview Panagarya (1998) extended Viner's argument to suggest that "... when trade is multilateral, that is, countries import from and export to union members as well as outside countries, trade diversion is inevitable. Moreover, if potential

union members are small in relation to the outside world as is likely, little trade creation will be forthcoming.” His arguments draw inspiration from several important studies, such as Grossman and Helpman (1995), Krishna (1996) and Yeats (1996), which arrive at a similar conclusion that trade diversion would be the dominant outcome of RTAs among developing countries. Frankel, Stein and Wei (1996) had also made a similar conclusion: “FTAs are likely to be detrimental over a moderate range of parameter values, even if drawn along natural regional lines.”

There is a large body of empirical literature on bilateral and multilateral RTAs that question the net benefit of such trade arrangements. An early study on RTAs by Vamvakidis (1998) had concluded: “This article has found that RTAs had no impact on growth in the past.” Nonetheless he held the hope that future RTAs would be designed in ways that would promote growth. In a more recent study (2006) he stated: “The comparisons show that economies grew faster after broad liberalization, both in the short and long run, but slower after participation in an RTA. Economies also had higher investment shares after broad liberalization, but lower ones after joining an RTA.”

Schiffer (2002) stated that a South-South RTA that provides preferential access to its members but denies it to the rest of the world unchanged is likely to lower welfare for the bloc as a whole. Wooster et al (2008) provided an empirical estimate of this relative loss from regional trade in the context of 13 European countries. They found that “... intra-regional trade has had a lesser impact on growth in output per capita than extra-regional trade by almost 30%”.

Jalles (2012) studied the relationship between trade integration and economic growth in 21 South and South-East Asian countries over the period from 1980 to 2004. He could not find any relationship between RTAs and economic growth. A more recent paper ( MacPhee and Sattayanuwat 2014) that studied 12 RTAs also concluded: “Our regression results are not favorable to regional integration as a substitute for multilateral trade liberalization, although there are exceptions. Several RTAs fail to generate intrabloc trade creation.”

These studies lead to the conclusion that whether an RTA will be beneficial or not is essentially an empirical question and each country and region will need to work out the net advantage they might derive from the RTA they wish to form. The net gains or losses of individual countries comprising an RTA will not be the same. The smaller and less developed the countries are, the more likely that an RTA will be trade diverting for them. In that event RTAs will actually reduce economic growth to less than what is possible with more open trading environment.

### **RTAs in the SAARC region**

All such studies as above are sceptical if RTAs have any significant positive impact on growth. The proponents of more vigorous RTAs among some or all of the countries of SAARC on the other hand claim that the lack of a positive result is due to the low volume of trade among the countries of this region as indicated by the very low ratio of intra-SAARC trade to the global trade of the SAARC countries. Other RTAs such as ASEAN are more successful because they have a much higher intra-trade ratio. The obvious policy implication is that the governments of this region should promote more trade (and other cross border economic activities

including investment) among their countries to raise the economic growth rate, and a first step should be an improvement in regional connectivity. This was the principal message of the recent World Bank study (2018).

How credible is this conclusion? Interestingly, an early World Bank study (2006) on Indo-Bangla free or regional trade area had concluded that it could be harmful to Bangladesh interest: “FTA [Free Trade Area] will bring large welfare gain for consumers in Bangladesh provided there is adequate expansion of infrastructure and administrative capacity at custom borders. Yet the benefits of such a FTA to Bangladesh could be wiped out if it has the effect of keeping out cheaper third-country imports ... Such trade diversion costs can be huge and the only way to minimize them is *through further unilateral liberalization.*” (emphasis added.)

The studies mentioned earlier did not find sufficient evidence to believe that RTA is the right policy. However, there are other studies which have found the implication to be true. This short note will not engage in elaborate econometric investigation which would in any case not resolve the decades-old controversy. Instead a simple table (see Table 1 below) has been put together showing some *ex post* numbers related to several RTAs. The second column of the table, which lists the intra-RTA trade ratios, confirms that the South Asian region has indeed the lowest intra-trade ratio of 5.3 percent among the RTAs listed. The European Union (28 countries) has the highest intra-trade ratio of 61.2 percent and ASEAN has a middling ratio of 22.5 percent. The next column shows the average annual growth rate of the combined GDP (in current US dollars) of these RTAs during the ten year period 2008-2017. The most stunning thing that cannot escape notice is that the RTA with the highest intra-trade ratio, and hence by implication the most

regionally integrated group, has the lowest economic growth rate and the RTA with the lowest ratio (that is, least integrated) has the highest economic growth rate by a large margin. There is actually a significant *negative* relation between intra-regional trade and economic growth in this sample, that is, greater regional integration *reduced* growth!

It would not be helpful to stretch this point too much since it is vulnerable to the econometric criticism of sample selection bias and disregard of appropriate control variables. However, this pronounced negative relationship will have to be explained by the advocates of regional integration, without which the case for additional policy measures to further deepen the South Asian RTAs will be weakened. The negative relation does suggest that even if intra-trade has some positive impact on growth, there are other factors that exert a far stronger influence so as to make the less regionally integrated countries experience higher growth. It should also be noted that major countries which attained the highest sustained growth rates in the post Second World War period, viz. Japan, South Korea and China, did not belong to any significant RTAs when they were growing rapidly.

### **Intra-RTA Trade Ratio**

It seems to have become almost an article of faith that intra-trade ratio is an indicator of the degree of regional integration. This is, however, not quite the case always; it can on occasion lead to very misleading conclusions. This can be clarified with a hypothetical example. Suppose we are comparing two RTAs A and B. The intra-trade ratio of A is 3 percent and that of B is 61 percent. So the

conclusion would be that A is far less regionally integrated than B. Now assume that A is an RTA comprising Bhutan, India and Nepal. Further assume that Bhutan and Nepal do *all* their trade regionally implying that these countries are perfectly or wholly integrated regionally. Intra-trade ratio of A in this perfectly integrated situation will be only 3 percent (actual 2017 trade data). Now suppose RTA B is actually the European Union. Its intra-trade ratio in 2017 was 61 percent. With 39 percent of its trade with the outside world B is far from being wholly integrated regionally; and yet its intra-trade ratio is *20 times* greater than the intra-trade ratio of the perfectly integrated A.

The intra-RTA trade ratio of each individual country is a good indicator of the degree of its regional orientation. But to draw the same conclusion for the region as a whole is to commit a fallacy of composition. The reason we have such a convoluted conclusion as above is that in the case of A only one country, India, does 98.5 percent of the total trade of the region (2017 data). Hence intra-trade ratio in the region cannot increase beyond 3 percent of the total trade. If the actual ratio is even 2 percent, A would still be more regionally integrated than B. The presence of an elephant in any regional group will give rise to such a situation. Note that the large country above cannot be regionally integrated as that would be physically impossible given the very small size of its regional trading partners. Intra-trade ratio needs to be adjusted in an appropriate manner whenever the maximum theoretically possible regional trade ratio falls below 100 percent if it is to be used at all for indicating the degree of regional integration.

Another difficulty is the likelihood of the intra-trade ratio being influenced also by the volume of trade done by a regional group relative to world trade. If the



total trade of the countries of an RTA is, say, 20 percent of the world trade, then *in a frictionless world* intra-RTA trade would be about this percentage relative to the global trade of these countries. This could be higher than the intra-trade ratios of many other RTAs which may have a lower world trade share, but this would not necessarily imply a deeper regional integration of the former. The large intra-trade share of EU is largely a reflection of its large world trade share or greater globalisation.

Any deviation of the intra-RTA share from the world trade share of the members is reflective of distortions introduced by a host of both natural and policy induced factors such as proximity, common boundary, culture, history, political ambitions, security concerns, and domestic policies that reduce the cost, or raise the profitability, of intra-trade, and hence, raise the *ex post* comparative advantage of the RTA members. A regional or free trade area itself is a major market distortion created deliberately by the parties when they are unwilling to embrace universal free trade. All these push up the intra-trade ratio of a region above what it would have been in a frictionless world.

Contrary to the perception, most SAARC countries viz. Afghanistan, Bhutan, Maldives, Nepal and Sri Lanka are already fairly well integrated having a relatively large proportion of their trade with the South Asian region, especially India. The ratio of trade of these countries with South Asia ranges from 16 to 61 percent – far higher than the region's share of the world trade. India is the least integrated by this ratio with a value of 3 percent, followed by the other two relatively large countries of this group Pakistan and Bangladesh (7 and 9 percent respectively). The low regional index value is driven essentially by the behemoth

of the group, India, which does most of the global trade of the region; but only a fraction of its this trade is done with the other South Asian countries because of both the smallness of their markets and India's reluctance to import more from them. In this situation a larger intra-trade ratio will essentially mean imposing a greater dependence of the South Asian countries on India.

## **Conclusion**

This paper shows that the intra-trade ratios, frequently cited to compare the degree of regional integration of RTAs are not a reliable indicator of such integration, and sometimes lead to apocryphal conclusions. There is not much evidence to suggest that closer integration of a few low and lower middle income countries engaged in preferential trade among them will enhance either trade or economic growth of the region. It will be more productive to liberalise the trade regimes and remove the non-tariff barriers that hinder trade. The best way to promote greater trade within the South Asian region is to minimise tensions and accelerate sustainable economic development of all the countries of the region. This would require considerable improvement in bilateral relations, governance, infrastructure and human capital; RTAs are neither necessary nor sufficient to ensure this outcome.

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**Table 1: Intra-trade ratio and Growth**

RTA	Intra-trade ratio (%)	GDP growth (%)
EU28	61.22	-1.26
NAFTA	40.27	2.76
ASEAN	22.48	6.57
SADC	19.65	3.11
CIS	18.69	-0.44
CACM	17.45	6.60
MERCOSUR	14.14	3.00
SACU	13.91	2.44
WAEMU	12.90	4.60
CARICOM	10.01	4.74
ANDEAN	7.45	4.55
COMESA	6.39	5.08
SAARC	5.55	9.00

Source: International Trade Centre and World Bank

ANDEAN: Andean Community of Nations

ASEAN: [Association of Southeast Asian Nations](#)

CACM: Central American Common Market

CARICOM: Caribbean Community and Common Market

CIS; Commonwealth of Independent States

COMESA: Common Market for Eastern and Southern Africa

EU: European Union

MERCOSUR: Mercado Común del Sur (Southern Common Market)

NAFTA: North American Free Trade Area

SAARC: South Asian Association for Regional Cooperation

SACU: Southern African Customs Union

SADC: Southern African Development Community

WAEMU: West African Economic and Monetary Union

Table 2: Import, Export and Trade Ratios of South Asia 2016

Countries	Import from SA	Global Import	SA Import/ Global Import	Export to SA	Global Export	SA Export/ Global Export	SA Trade/ Global Trade
Afghanistan	1,356,850	6,534,140	20.77%	513,532	596,455	86.10%	26.23%
Bangladesh	6,812,496	48,058,710	14.18%	607,537	37,911,064	1.60%	8.63%
Bhutan	377,491	463,699	81.41%	172,730	657,552	26.27%	49.07%
India	2,571,638	356,704,792	0.72%	16,933,209	260,326,912	6.50%	3.16%
Maldives	419,095	2,127,969	19.69%	16,067	139,593	11.51%	19.19%
Nepal	4,041,701	6,612,094	61.13%	437,083	714,232	61.20%	61.13%
Pakistan	2,146,962	46,998,269	4.57%	2,618,423	20,533,793	12.75%	7.06%
Sri Lanka	3,644,882	19,500,757	18.69%	1,044,843	10,545,893	9.91%	15.61%
TOTAL	21,371,115	487,000,430	4.39%	22,343,424	331,425,494	6.74%	5.34%