Why do some countries trade more than others?

Selim Raihan

Theoretically, trade liberalization results in productivity gains through increased competition, efficiency, innovation and acquisition of new technology. In particular, the changing relative prices induced by trade liberalization cause a re-allocation of resources from less efficient to more efficient uses. Trade liberalization is also thought to expand the set of economic opportunities by enlarging the market size and increasing knowledge spillover effects. Empirical research on international trade also shows that, in general, larger trade-orientation and freer trade, with supporting policies and institutions, can lead to higher welfare for a country than otherwise.

However, a major question remains some way unclear – why do some countries trade more than others? More specifically, does country size matter? How does differences in per capita income affect trade-orientation among countries? Does human capital make any difference? How does tariff liberalization promote trade-orientation? Moreover, does foreign direct investment (FDI) affect trade performance? Furthermore, does geographical location have a bearing, i.e., being an island country or a landlocked country? Also, does membership of the GATT/WTO raise trade-orientation? Finally, does institution matter in trade-orientation?

In order to answer these questions, a fixed effect panel regressions using a database covering the period between 1981 and 2014 for 128 countries were conducted. We have defined country’s trade to GDP ratio as the country’s trade-orientation. We want to explain why some countries have higher trade-GDP ratio than others. The explanatory variables are the size of population (to represent country size), per capita real GDP, an index of human capital, domestic average applied tariff rate, and FDI to GDP ratio.

The findings of the LSDV models, show that landlocked countries and island countries are 194% and 284% respectively more trade oriented than their counterparts. Both for island and landlocked countries, international trade plays a crucial role in their economic lives as most of these countries are dependent, to an unusual degree, on imported goods and services, including foodstuffs, fuel, equipment and industrial material as well as a wide range of manufactured products. However, interestingly, being a member of the GATT/WTO doesn’t make any difference in terms of trade-orientation.

We have also explored the association between trade-orientation and different institutional variables. The data of these institutional variables are derived from the ICRG database. The fixed effect regression results suggest that countries with better bureaucracy quality, larger democratic accountability, and sounder investment profile are associated with higher trade-orientation. These results are also consistent with findings from studies on the determinants of trade flows which argue distortions or costs placed on firms under inefficient institutions and poor governance can negatively affect trade flows.

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The analysis of comparative advantage is important from the policy perspective. Trade policies of a country should be tuned to promote export items where the country has comparative advantage. The Revealed Comparative Advantage (RCA) analysis, suggested by Bela Balassa in 1965, is an ex post analysis of comparative advantage and has been used in many studies. RCA index is used to calculate the relative advantage, disadvantage and trade potential of a certain product in a country.

The RCA index is measured as the ratio of a product’s share in the country’s total export relative to its share in the world’s total export. The formula for the RCA is equal to $\left( \frac{X_i}{X_i^w} / \frac{X_j}{X_j^w} \right)$, where $X_i$ and $X_j$ are country i’s export and world export of product j respectively, while $X_i^w$ and $X_j^w$ are country i’s total export and world total export respectively. If RCA is greater than unity, the country is said to have comparative advantage in that product; and if RCA is less than unity, the country has comparative disadvantage in that product. The RCA index is popular because of its simplicity, availability of data and for cross-country comparisons. The index is consistent with country’s factor endowment and productivity.

In this article, we are interested to know in which products Bangladesh has comparative advantage and the dynamic changes of its comparative advantage. We have calculated RCA at 6-digit level of the harmonized system (HS) of classification for the periods between 2001 and 2013. RCA indices for Bangladesh are calculated using the data of export volumes of Bangladesh and the world from the Trade Map database.

Before going into the RCA analysis, let’s first explore how many products Bangladesh exports. At the 6-digit HS code level, there are approximately 5300 products. Figure 1 shows that in 2001, Bangladesh exported 896 products, which, by 2013, increased to a number of 3038. In 2012, Bangladesh exported 2126 products which was the highest among the years under consideration. This suggests that, not only in terms of volume but also in terms of number of products, Bangladesh’s export capacity increased by more than double during 2001 and 2013. On a year-to-year basis, some new products were added to the export basket and some were ceased to be exported. However, there were 375 common products which Bangladesh exported all the years under consideration.

Figure 2 presents the numbers of products at 6-digit HS code where Bangladesh had comparative advantage during 2001 and 2013. In 2001, the number of products with RCA>1 was 316, which, with some year-to-year fluctuations, increased to 382 by 2013. The highest number of RCA>1 was observed in 2007 consisting 483 products. Figure 2 also suggests that the percentage share of RCA>1 products in total number of products declined over time: from 35% in 2001 to 19% in 2013. However, as a percentage of total exports, throughout those years, Bangladesh enjoyed comparative advantage in more than 97% of its total export. Furthermore, over those years, comparative advantage had been consistent for 130 products at the 6-digit level among which 115 products were from readymade garment industries. All these suggest that although Bangladesh was able to expand its export basket during 2001 and 2013, the number of products it had comparative advantage didn’t increase proportionately, which indicates escalated concentration of RCA in certain products.

The escalated concentration of RCA in certain products during the period under consideration is manifested by the fact that Bangladesh’s RCAs had been concentrated around the products in the HS codes 03 (fish and shrimp), 41 (raw hides and skins and leather), 52 (cotton yarn), 53 (raw jute), 61 (knitted readymade garments), 62 (woven readymade garments) and 63 (home textile and jute hessian bags). However, a close look at Figure 3 suggests that Bangladesh’s comparative advantage has been highly concentrated around the readymade garments sector. In 2013, number of products with RCA>1 under the HS codes 61, 62 and 63 accounted for 57% of the total number of products with RCA>1. In 2007, such codes 61, 62 and 63 accounted for 57% of the total number of products exported.

The maximum value of RCA in the readymade garments sector was 495 in 2001, which declined to 184 by 2013. Bangladesh had also been losing the very high comparative advantage it had in garments exports. Figure 4 suggests that, in 2001, Bangladesh enjoyed very high RCA (RCA>100) in 18 garments while it had 30 such products in 2013. In contrast, the number of products with RCA less than or equal to 30 increased over time: from 142 in 2001 to 181 in 2013.

Similar analysis, with respect to the leather and leather goods, suggests that there had not been much variations in the number of products having RCA in this sector. And, as in readymade garments sector, Bangladesh had been losing very high comparative advantage it had in this sector. In contrast, Bangladesh had been enjoying consistently very high comparative advantage in jute and jute products, where, in all of 6 products, RCA ranged between 53 and 1068.

The aforementioned analysis shows that during the period under consideration, Bangladesh’s comparative advantage had been concentrated around low-skilled labor intensive readymade garments exports. However, in recent years, compared to early 2000s, there had been some products where Bangladesh gained comparative advantage. These include edible fruits, animal and vegetable fats and oil, preparations of cereals, flour, starch or milk and pastry cooks’ products, preparation of vegetable, fruits, nuts, residues from food industries, rubber and rubber products, copper and copper products, and furniture. However, Bangladesh lost comparative advantage in fertilizers, printing industry’s products, articles of iron and steel, and miscellaneous manufactured articles.

Finally, we are interested to know how tariff rates, both at home and partner country, affect Bangladesh’s revealed comparative advantage at the sectoral level. For this exercise, we have constructed a panel data at 6-digit HS code level for the period between 2001 and 2013. The dependent variable is the RCA which is a binary variable, where it takes a value of 1 if RCA is greater than unity and zero otherwise. The first explanatory variable is the domestic tariff rate at 6-digit HS code level, which is the effectively applied tariff rate and its data is taken from the WITS database. The second explanatory variable is the partner country’s tariff rate, which is calculated as the weighted average of simple tariff rates imposed by top export destination partners of Bangladesh namely USA, EU, Canada and India. Data of partner countries’ tariff rates are taken from the WITS and OECD-WTO database. The fixed effect panel logit regression results suggest that domestic tariff rate is negatively associated with RCA and the coefficient is statistically significant. This suggests that a cut in domestic tariff raises the likelihood of RCA greater than unity among the sectors. In contrast, the coefficient of the partner countries’ weighted tariff rate is not statistically significant. The reason behind the non-association between the RCA and partner countries’ tariff rate could be because of the fact that the large part of Bangladesh’s export to its major partner countries are under different preferences schemes; for example, Bangladesh’s exports enjoy duty free and quota free market access in the EU market.

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Incentives given to domestic producers and exporters have to be balanced...

Dr. Zaidi Sattar is the founder Chairman of Policy Research Institute (PRI). He started his career as a lecturer of Economics, University of Dhaka. Later he served civil service of Bangladesh in various positions. He joined the World Bank in 1996, where he served as Senior Economist of South Asia Region until his retirement in September 2007. Dr. Sattar has many publications in international and national journals and numerous papers presented on trade policy, private sector development and growth issues at national and international conferences.

SANEM: What are the burning issues of trade policy in Bangladesh?

ZS: Trade policy has to be considered in two parts - external measures and internal policy reforms. The external part consists of initiatives regarding market access and export expansion, utilization of Bangladesh’s LDC status, getting preferential treatment within the WTO rules, getting involved in bilateral or regional trade pacts and of course with the multilateral trading system of the WTO. Our government is taking a lot of initiatives on the external front.

The burning issue in trade policy lies in the internal or domestic side of trade policy, namely, the trade protection regime which creates an imbalance of incentives provided to the exporters versus producers for the domestic market. There appears to be a lack of understanding about the distinction between trade policy and industrial policy, which are too integrated to be considered separate. It's a matter of concern to have industrial policy that is only focused on promoting X, Y, or Z sectors, rather than creating the right policy environment to improve productivity growth and competitiveness. Not to be ignored are the trade facilitation (trade infrastructure) components, the so-called supply-side constraints, that impede productivity growth and competitiveness of exports.

SANEM: What are the prospects and challenges for Bangladesh in international trade?

ZS: In the next 10 years our competitiveness will be defined by low cost labor. Wages will rise slowly, like in China. China is less competitive now and has a large domestic market. They have grown 10-12% in the last 30 years, have pulled 500 million people out of poverty, on the back of export growth. In Bangladesh, there is a vast market of 1.2 billion people, and a market of 2.5 trillion dollars. Both countries are still harping on increasing export. It doesn’t take long to realize that domestic market is not enough to create necessary jobs. Exporters must be given opportunity so that they can operate in high volumes and create jobs. We have to encourage FDIs – as we cannot export our potential without it. Today market, we have to be technologically sound – not just for bringing capital, but also for exporting. We need to significantly restructure our tariffs. The size of world market is 65-70 trillion dollars; 35 trillion dollars in the markets of Europe and North America. We are attracted by global brands (e.g. Levi, Gap, Calvin Klein) regardless of where the apparel is made. Vietnam, our major competitor, is aggressively capturing the USA market and will soon gain additional advantage once the Trans Pacific Partnership (TPP) is launched. To be more competitive, our quality must improve, and we must ensure compliance of standards related to workplace safety. Our goal must be to capture more of the global market in RMG and non-RMG exports. The size of world market is 65-70 trillion dollars; 35 trillion dollars in the markets of Europe and North America. We need to promote our value added and high quality products and integrate with the global market.

SANEM: Can Bangladesh embark in international market using “made in Bangladesh” brand?

ZS: All the top global buyers are using “Made in Bangladesh” products. Buyers in Europe and North America are attracted by global brands (e.g. Levi, Gap, Calvin Klein) regardless of where the apparel is made. Vietnam, our major competitor, is aggressively capturing the USA market and will soon gain additional advantage once the Trans Pacific Partnership (TPP) is launched. To be more competitive, our quality must improve, and we must ensure compliance. Standards related to workplace safety. Our goal must be to capture more of the global market in RMG and non-RMG exports. The size of world market is 65-70 trillion dollars; 35 trillion dollars in the markets of Europe and North America. We need to promote our value added and high quality products and integrate with the global market.

SANEM: What would be your suggestions about our current tariff regime?

ZS: We need significantly restructure our tariffs. The extreme position is a low and uniform tariff, which isn’t feasible. We should not increase the number of tariff slabs, and there should be one tariff rate in each of the HS-digit tariff heading because each heading represents similar product. PRI research has shown that a modest degree of tariff liberalization on consumer goods would not hurt our balance of payments but ease the pressure on the exchange rate at a time when Bangladesh Bank is accumulating foreign exchange reserves and fighting appreciation pressure.

SANEM: Thank you so much for your time.

ZS: My pleasure.
First SANEM Training Program on Cutting Edge Methods in Applied International Trade to be held in Cox’s Bazar, Bangladesh

Organized by SANEM, a Training Program on Cutting Edge Methods in Applied International Trade is going to be held at Hotel Sea Crown, Cox’s Bazar, Bangladesh from 8-11 August, 2016. The training module will consist of lectures and hands-on sessions on advanced issues of international trade and tools to analyze trade flows with a focus on gravity modeling for trade policy analysis.

- Early Bird registration fee (before 30th June, 2016): USD 350
- Late registration fee (before 30th June, 2016): USD 500

The registration fee includes course fee, training materials, travel cost between Dhaka and Cox’s Bazar by air-conditioned bus, accommodation on a twin sharing basis, and meals during the training program. Interested applicants are encouraged to apply soon, as seats will be occupied on ‘first come first serve’ basis upon payment of registration fee.

A waiver (up to USD 150) on the registration fee will be provided to deserving candidates.

Instructors: Dr. Selim Raihan (Executive Director, SANEM) and SANEM’s Research Associates.

For further queries and application process, visit our website at www.sanemnet.org.

SANEM celebrated 2 years of Thinking Aloud

SANEM team celebrated 2 years of Thinking Aloud on 29th May 2016 at SANEM Office, Gulshan-2, Dhaka. It was attended by honorable guests, ex-research associates, SANEM employees and their family members. Dr. Selim Raihan (Executive Director, SANEM) provided special remarks at the beginning of the ceremony. Amongst the well-wishers, Dr. Taibur Rahman (Professor, Department of Development Studies, University of Dhaka), Dr. Abu Eusuf (Professor, Department of Development Studies, University of Dhaka), Dr. Kazi Marful Islam (Associate Professor, Department of Development Studies, University of Dhaka) and Dr. Sayema Haque Bidisha (Associate Professor, Department of Economics, University of Dhaka) were present. The celebration began with cutting a cake and it was followed by dinner.

Other Events

Discussion held at BIDS: A validation discussion on a study titled “Governance of International Supply Chains towards Sustainable and Inclusive Garment Industry” was held on 4th May 2016 at BIDS, Dhaka. Introductory remarks were provided by the team leader for the study Professor Yoshiteru Uramoto (Centre for Global Discovery, Japan), Md. Mahedi Hassan (Research Associate, SANEM) attended the discussion.

Discussion on budget held at MCCI, Dhaka: Organized by MCCI and Massranga Television, a dialogue on “Budget 2016-2017: Our Expectations” was held on 13th May 2016 at Chamber Building, Dhaka. Mr. A. M. A. Muhith (Minister of Finance) was chief guest of this event. Mr. Md. Jiljur Rahman (Research Associate, SANEM) attended the event.

 SANEM is a non-profit research organization registered with the Registrar of Joint Stock Companies and Firms in Bangladesh. Launched in January 2007 in Dhaka, it is a network of economists and policy makers in South Asia with a special emphasis on economic modeling. The organization seeks to produce objective, high quality, country- and South Asian region-specific policy and thematic research. SANEM contributes in governments’ policy-making by providing research supports both at individual and organizational capacities. SANEM has maintained strong research collaboration with global, regional and local think-tanks, research and development organizations, universities and individual researchers.