

Langhammer, R.

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R. Langhammer*

**The Relevance of 'Natural' and Policy-Induced Barriers
to South-South Trade. Preliminary Results from Empirical
Assessments**

I. Background

The underlying hypothesis of the following presentation is that both the structure and the volume of South-South trade are not only determined by economic growth rates and their differences between the various regional blocs in world trade as it seems to be assumed in the various projections on regional shares in world trade under different economic growth rate scenarios¹. Instead, focus is given to the implications of nationally and supranationally-induced barriers to South-South trade.

In this respect tariff and non-tariff barriers as well as "natural" barriers (transportation costs) are frequently cited as major disadvantages for South-South trade compared to South-North trade. The presentation of results and hypotheses will therefore be confined to these two aspects.

II. Results

1. The studies on transportation problems have centered on the relevance of transportation costs in South-South trade, measured both as ratios to transportation costs on South-North trade (the freight rate-induced disadvantage indicator) and as a tariff equivalent.

* This paper reports on research undertaken in a project on economic policy determinants of South-South trade which receives financial support from the VW foundation.

1 The recent UNIDO Industrial Development Survey for 1980 can be quoted for such scenario analyses.

* Institut für Weltwirtschaft, Kiel

As a first result it emerges that South-South trade actually faces a freight rate disadvantage against southern imports from developed countries in the same product. The statistical basis for this conclusion, however, is confined to Brazil, which to the present knowledge is the only developing country recording its imports fob and cif².

The disadvantage ranges between 3 percent at the minimum under the assumption of identical fob-values from both sources and 40 percent at the maximum. As the indicator the ratio between cif/fob import value ratios from three developed countries respectively regions (US, Western Europe, Japan) has been applied. The minimum value refers to Brazilian imports from South Korea, the maximum value to Brazilian imports from India.

It is important to note that the transport cost disadvantage differs by products and countries and does not show any positive correlation to the distance. Hence it is the quality and frequency of the transportation media rather than the distance in absolute terms which seems to affect freight rate disadvantages in South-South trade compared to South-North trade.

As a preliminary conclusion from this first point one may say that trade between advanced (and not land-locked) developing countries faces a freight rate disadvantage compared with imports to the North which does not seem to be extraordinary. It is evident that this conclusion is open to revisions once land-locked countries or countries with poor port facilities are included in the analysis. However, these countries do not play any significant role in South-South trade beyond pure neighbour trade.

2. The second hypothesis refers to the tariff equivalent of transportation costs. The tariff equivalent allows for comparing the protective effect of both tariffs and transportation costs. Again applied to the Brazilian imports from developing countries it emerges that on

2 See Rolf J. Langhammer, The Importance of "Natural" Barriers to Trade among Developing Countries. Some Evidence from the Transport Cost Content in Brazilian Imports. Kiel Working Paper No. 126, Kiel, March 1982.

the average tariffs comprise about two third of the total nominal protection and that freight rates only account for the residual one third.

With regard to the effective protection that is the question whether freight rates increase with the stage of fabrication and hence reinforce the escalation effect of the tariffs in favour of the domestic finished goods production, the estimates are inconclusive. Whereas for rubber and copper processing South-South trade in the finished goods seems to be hampered by freight rates increasing with the stage of fabrication, estimates for aluminium yield another result.

As a hypothesis for further research it may be argued that due to the larger volumes of the traditional South-South trade flow in bulky primary commodities the escalation effect still prevails and hence discriminates against South-South trade in finished goods. However, this may rapidly change once non-linear tariff cuts in South-South trade would provide a strong incentive to South-South trade in manufactures where tariffs are still the highest compared to raw materials or intermediates.

One may argue against these estimates that they are confined to a country, Brazil, whose tariffs are still high, higher than in other developing countries. This is true. However, the considerable discrepancy between tariffs and the tariff equivalent of freight rates yields that the hypothesis would hold even if tariffs would be cut by less than 50 percent. That means that also for countries with a lower average nominal tariff level than Brazil tariffs could prove to be more serious obstacles to trade than freight rates.

3. My third point refers to the differences between the structure of developing countries' imports from developed and developing countries on one hand and the tariff structure of the importing developing country on the other hand.

The sample of countries which enables us to cope with the role of tariffs in South-South trade and the effects of tariff concessions covers Algeria, Argentina, Brazil, India, Mexico, Saudi Arabia, South Korea,

Thailand and Tunisia. These countries comprised about 50 percent of non-oil South-South trade at the end of the seventies.

The first result suggests that the sectoral structure in both South-South and South-North imports is fairly homogenous irrespective of the countries concerned. Imports from developing countries focus on intermediates (about 60-70 percent) with two exceptions (Argentina 56 percent and Saudi Arabia 45 percent) whereas imports from developed countries centre on capital goods followed by intermediates. One may say that in both trade flows goods being complementary instead of substitutive to domestic production prevail.

Whereas consumer goods always play a minor role in the sample countries' imports from developed countries (not more than 16 percent at the maximum) the picture is much more diversified for South-South imports of consumer goods though consumer goods are generally more important import goods in South-South trade than in South-North trade. It is not amazing that Saudi Arabia whose average tariff level is only 3 percent holds the top rank as far as the percentage of consumer goods in its South-South imports is concerned (about one third in 1980). Mexico keeps the stern-light (8 percent), and this shows that there are country-specific differences in the South-South consumer goods import flows which do not exist in the intermediate goods imports.

The income level is evidently one essential determinant. However, the other one, probably linked to the first, is the tariff structure which discriminates against imports of consumer goods in all sample countries. Here seems to be one of the most essential barriers to South-South trade expansion; the high protection against price-elastic low-income consumer goods which of course are primarily supplied by domestic producers. That means that the trade structure responds to the tariff structure and that the actual imports of developing countries from each other are charged on the average with lower tariffs than those which are imposed upon imports from developed countries. Since the low-tariff intermediates prevail in South-South trade this should be regarded as a tariff structure-induced distortion. Again a non-linear cut of tariffs would in my view change the structure of South-South

trade in favour of low-income consumer goods considerably, and this would result in trade creation to the detriment of local producers rather than in trade diversion to the detriment of high-income consumer goods imports from developed countries.

4. This hypothesis leads to one of the main purposes of the assessments, the effects of multilateral tariff concession rounds among developing countries. For this end we have grouped the sample countries' imports from developed and developing economies by nominal tariff frequencies and, by using disaggregated Japanese import demand elasticities, have estimated trade creation effects on South-South trade under nine alternative tariff-cutting formulas. The formulas are the same which have been proposed by the industrialized GATT-members in the Tokyo-Round³. These proposals encompassed linear cuts across the board, non-linear so-called harmonization formulas with the percentage tariff cut higher, the higher the initial tariff as well as linear cuts with certain tariff floors and tariff ceilings.

Hence there is no item-by-item approach as applied in the very limited multilateral trade concession rounds among some developing countries during the late sixties and seventies (GATT Protocol, Tripartite Agreement) and this coincides with the UNCTAD Secretariat approach in the Global System of Trade Preferences, not to pursue time-consuming item-by-item approaches. The main problem which any attempt to measure trade expansion effects due to trade liberalization has to encounter, is that only the past volume of trade which itself is distorted by the tariffs can be taken into consideration instead of the future increment of trade. Furthermore no information exists with regard to the minimum prohibitive tariff level whose undercutting would generate trade. Thus the usually applied approach to multiply the relative tariff reduction by the import demand elasticity and the initial volume of trade systematically underestimates the amount of trade creation due to the existence of zero-trade in the high tariff lines.

³ See William R. Cline et al., Trade Negotiations in the Tokyo Round. A Quantitative Assessment. Brookings Institution, Washington, D.C., 1978, p. 77.

Bearing this in mind one should not wonder about the relatively low trade creation amounts which we gained although we tried to avoid the aggregation bias that means averaging high and low tariffs by choosing the disaggregation level of four-digit BTN items (about one thousand items for each country). At this level, however, it is impossible to estimate the probably much more important trade diversion effects of a discriminatory trade concession round, which excludes developed countries. Since domestic production data are needed to estimate the shift of imports from developed countries to developing countries due to discrimination⁴, an alternative estimate will be applied on the basis of industrial sectors (3-digit ISIC). At the time of the DÚI Workshop the results have not yet been available.

With respect to trade creation on the 4-digit BTN tariff item level, the trade creation effects of a 60 percent across-the-board tariff cut for instance would range from 18 percent of initial South-South imports in the case of Brazil and 3 percent for Saudi Arabia which has by far the lowest tariff level of the sample countries. A harmonization formula would not change this result very much in the case of countries with very high tariffs (say Brazil about 100 percent) because there has not been any trade in these tariff lines.

The highest trade creation effects emerge for a harmonization formula which incorporates a linear element as well⁵. This guarantees that some cutting occurs even for very low tariffs (where of course is the majority of South-South trade). Here a trade expansion of 23 percent of initial imports from developing countries occurs at the maximum (in the case of Tunisia).

What does all this mean for the ongoing discussion on the Global System of Trade Preferences? I would say that the proposal of the UNCTAD-Sec-

⁴ See for the empirical discussion of the trade diversion measure Robert E. Baldwin and Tracy Murray, "MFN Tariff Reductions and Developing Country Trade Benefits under the GSP". The Economic Journal, Vol. 87 (1977), pp. 30-46.

⁵ $y = (0.3 + 0.01 t_0)t_0$, where y is the tariff cut in percentage points and t_0 the original tariff in percent.

retariat⁶ to start with a very modest linear cut of 10 or 15 percent would result in an expansion of our sample countries' South-South imports of only 4 percent at the maximum, according to our calculations. One may argue that such expansion effects are "peanuts" and that they would not eliminate the problem of high effective protection against South-South imports due to discrepancies between low tariffs on intermediates and high tariffs on finished goods. Hence South-South trade would not be stimulated worth mentioning. Unless a harmonization formula is applied there will be no essential incentive to South-South trade. Of course the total trade expansion, that means the sum of trade creation and trade diversion will be higher simply because imports from the North are still much more important than imports from the South. However, trade diversion means a loss of real income for the importing developing country since the gain for the consumer is outweighed by the loss of tariff revenues for the government. Thus, developing countries' governments whose budgets depend on customs revenues should not welcome South-South trade expansion which is based on trade diversion. This leads to the last aspect of the fourth point, that is reciprocity.

Reciprocity in a strict economic meaning is senseless because trade liberalization is per se a gain for the importing countries' consumers and also producers, and trade liberalization can be achieved unilaterally without any intervention of other countries. However, no government in the world cares about such arguments and instead regards import expansion as a burden which should be shared equally. Hence reciprocity matters in reality especially in tariff reductions to be conceded by the more advanced developing countries. The most frequently used criterion of reciprocity is the average depth of tariff cut. This criterion does not consider the absolute level or absolute change in tariffs but the percentage change in the tariff which should be equal for all negotiating partners. The concept favours countries with low tariffs where of course the concession-induced trade expansion would be lower than for a country with high tariffs. Weighted with the

⁶ UNCTAD, A Global System of Trade Preferences among Developing Countries (GSTP). Outline of Possible Elements for the Initial Phase of the GSTP Negotiations. TD/B/C.7/47, 3 June 1981, p. 5.

initial amount of imports, an average depth of tariff cut would be equal to the tariff revenues forgone due to the tariff reduction. A linear cut would of course avoid the problem of reciprocity since then the average depth of tariff cut would be equal to the linear cut percentage. However, given the large differences in tariff levels among developing countries, any harmonization formula would make the extent of tariff revenues forgone very different for each developing country. If for example our sample countries would apply a so-called three-stage iteration approach by which in each stage the percentage cut in a tariff is equal to the initial tariff itself (the EEC proposal in the Tokyo Round), the range of tariff revenues forgone would be between 18 percent at the minimum for Saudi Arabia and 86 percent for Tunisia. It is likely that such discrepancies would not facilitate the negotiation process.

Thus, to summarize this fourth point, one might say that developing countries will face a tradeoff between substantial trade expansion based on trade creation and reciprocity. If they really want to liberalize and expand South-South trade then a harmonization formula is indispensable. Then, however, the reciprocity problem becomes relevant, and up to now this second aspect seems to have ruled the pre-bargaining discussion among the potential negotiators.

5. The fifth point refers to non-tariff barriers (NTBs), the probably most important barriers which mostly cannot satisfactorily be assessed in quantitative terms. An inventory approach⁷, which only enumerates the frequency of import licencing procedures in twelve developing countries without assessing their incidence on trade flows shows that import licencing in developing countries centres on five sectors (food, textiles, basic chemicals, non-electrical machinery and fabricated metal products). These are also the key sectors in the industrial growth process of the countries concerned. With regard to South-South trade in one of these sectors, textiles, import licencing seems to

⁷ Rolf J. Langhammer, "Sectoral Profiles of Import Licencing in Selected Developing Countries and their Impact on North-South and South-South Trade Flows". Konjunkturpolitik, Berlin, Vol. 28 (1982) No. 6.

hamper finished goods (clothing) imports more than trade in intermediates. Thus non-tariff barriers in the form of import licencing are likely to augment the rate of effective protection of finished goods and again contribute to discriminate against South-South trade in finished goods.

These results, however, are only based on inventories but not on an analysis of the incidence of import licencing. There are a lot of enquiries on developed countries NTBs which suggest that the frequency of NTBs applied does not necessarily coincide with the effectiveness of the NTBs. Thus, an empirically-based conclusion on the effects of NTBs in South-South trade is not yet possible.

To sum up the whole, South-South trade can effectively be expanded in case developing countries would agree in tariff-harmonizing approaches of tariff cuts. This would change the sectoral structure of South-South trade in favour of consumer goods, but also capital goods and would reduce the preponderance of intermediates. Furthermore, the sectoral change would also ease the transportation problem. This problem seems to be one of a lacking profitability of regular inter-regional liner services between advanced developing countries due to the low volume of finished goods rather than of a problem of traditional South-South bulk trade where South-South shipping facilities are better.