

# The Accommodation of Interests Between Developed and Developing Countries

Robert M. Stern ★

WE HAVE A REMARKABLE SITUATION in the World economy today in which the LDCs, following the example and leadership of the OPEC, are trying to pressure the advanced industrialized countries to pay them more for their primary commodity exports. The industrialized countries are thus on the defensive and, at least judging from their responses to date, seem to be in disarray on issues of commodity policies. This is certainly unfortunate. But what is somewhat surprising is that comparatively little attention seems to have been given to the possible accommodation of interests between the advanced countries and the LDCs by means of the Multilateral Trade Negotiations (MTN) that were officially launched under the auspices of the General Agreement on Tariffs and Trade (GATT) in Tokyo in September 1973.

The MTN are designed to reduce or eliminate tariffs and other barriers that impede trade in industrial and agricultural products, with the objective of increasing economic welfare in the participating countries. This increase in welfare will be consequent upon the realization of efficiency gains in production as resources are shifted to more highly productive uses and upon reduction in consumer prices as imports expand. In order to determine the size and distribution of these gains among the participating countries, we need detailed information on the existing

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★ Robert M. Stern is Professor of Economics at the Univ. of Michigan. This article has been reprinted through the co-operation of the Kathmandu office of the U.S. International Communications Agency and the Public Affairs officer, Mr. Jack Ritchotte. This article Previously appeared in the Journal of World Trade Law:

level and composition of trade and trade barriers and of domestic outputs and employment together with knowledge of the parameters that will indicate directly and indirectly how the trade and domestic variable may respond to reduction or removal of existing trade barriers. While the provision of such information is well beyond the scope of this article we will none-the-less attempt to show in the discussion to follow that the LDCs have much to gain from trade liberalization, and that the MTN offer an opportunity for the advanced countries to deal with LDC grievances and pressures in a substantive way.

## SOME BACKGROUND CONSIDERATIONS

In previous trade and tariff negotiations under GATT, the advanced countries have sought to grant mutual concessions to obtain balanced changes in trade and employment so as to minimize overall deflationary effects and costs of adjustment due to difficulties in shifting resources among industries. Since the advanced countries account for the bulk of world trade in industrial products and since past negotiations were oriented in large measure more towards achieving bilateral rather than multilateral balancing, there was a natural tendency for liberalization to be concentrated in products of interest mainly to the advanced countries.

Given that LDC exports to the advanced countries were highly concentrated in agricultural and mineral products that were subject to relatively low or zero tariffs in their raw or partially processed form, there was little incentive for the advanced countries to negotiate over existing barriers affecting these products. LDC industrial products were presumably explicitly recognized, however, when the GATT member advanced countries decided prior to the Kennedy Round not to request reciprocal tariff reductions from the LDCs. This departure from the Most-Favored-Nation principle was in reality mainly a token gesture because the advanced countries had almost coincidentally taken steps to restrict imports of cotton textiles from Japan and from several LDC exporting countries. It is well known of course that these restrictions have since been extended to cover synthetic-fiber textiles as well.

Reacting to LDC pressures emanating from the UNCTAD Conferences held in 1964 and 1968, the advanced countries agreed in principle to establish trade preferences favoring imports of manufactured goods from LDCs. This policy became formalized in the Generalized System of Preferences (GSP) and has been implemented by all the major countries including the U.S., which included a provision for the GSP in the Trade Reform Act passed by Congress in December 1974 and obtained congressional approval for implementation of its scheme in late

1975. While the notion of GSP seems to offer encouragement to LDC exports of manufactures, what little evidence we have, mainly from the experience of the European Community' indicates that the system invoked is not likely to have much additional impact. If this experience is true also for the other industrialized countries, it would appear that the GSP is of rather limited value to the LDCs. This conclusion is reinforced by the fact that the category of prime interest, LDC textile exports, is not covered by GSP and is subject to special restrictions.

The preceding discussion is not meant to divert attention from the very substantial gains that the LDCs have realized from participating in international trade through the exchange of their agricultural and mineral products for finished manufactures and temperate-zone food stuffs and materials produced in the advanced countries. This type of exchange is a clear demonstration of the principle of comparative advantage, according to which countries specialize in production and trade based upon their technical efficiency. Where the gains from trade are realized in terms of the difference in the cost of domestic resources required to produce the goods actually exported as compared to what it would have cost if the country had produced the imported goods at home. If comparative advantage works the way it is supposed to, both the advanced countries and the LDCs stand to gain significantly by their specialization in production and trade.

There is a problem, however, in that maximum realization of the gains from trade based upon comparative advantage requires that international exchange takes place under conditions in which countries lack the ability and power to affect their terms of trade and in which tariffs and other restrictions are not employed for nationalistic objectives. Moreover, it is taken for granted that comparative advantage will differ among countries according to their stage of development so that the advanced countries will be in a preferred position in the production and export of manufactures by virtue of their head start and greater ability to generate capital accumulation and technological improvement.

Because of these perceived differences in power, in the exercise of commercial policy, and in the dynamics of growth and trade, many LDCs have come to view the world trading system as being stacked against them and they have been seeking ways to redress the balance. They have embarked in numerous instances on programs of rapid industrialization with an emphasis on import substitution. But the results have often been disappointing and damaging to LDC economic welfare because of their inability to produce efficiently. More recently, however, the LDCs have given their attention to the possibility that maybe a better policy would be to orga-

nize their production and export of primary commodities in a way that would turn the terms of trade in their favor.

The remarkable success of OPEC in increasing world petroleum prices has created an example which other LDC producing groups would like to follow and we have already witnessed joint LDC efforts to limit output and raise in the cases of bauxite, bananas, and certain other commodities. How successful particular groups can be remains to be seen because, for many commodities, there may be too many producers to organize and control. Moreover, the success of commodity restriction will depend upon how responsive output and demand are to price changes for the goods directly involved and for close substitutes. It might be mentioned, finally, that increased commodity prices will raise input costs in the advanced importing countries with resultant increases in their domestic and export prices. As a consequence, LDCs may find that they are getting higher prices for their exports to the advanced countries, but that their imports from these countries may be correspondingly more expensive.

In any event, given the impetus for LDC producing countries to organize themselves, what options do the advanced countries have? The advanced countries are naturally interested in meeting their short-term import needs for raw material and foodstuffs with a minimum of instability with respect to volume and price and to fulfil their longer-term requirements subject to competitive market trends that are operative on the demand and supply sides. In turn, the advanced countries also need markets for their own exports primary commodities and manufactures that have these same characteristics of stability and growth. For their part, however, the advanced countries have often been motivated by national interests that may work to the detriment of the LDCs. This is most evident in the advanced country tariff structures that have been escalated according to the stage of processing and in the erection of nontariff barriers designed to protect industries that cannot compete effectively with imports. Viewed in this light, it may be asking too much of the LDCs to expect them to refrain unilaterally from trying to improve their bargaining positions *vis-a-vis* the advanced countries.

What then can be done? It so happens that the MTN provide an unusual opportunity for accommodating the interests of both groups of countries. What can be done is that in exchange for commitments by the LDCs to assure stable supplies of primary commodities and to refrain from restrictions designed to raise prices over time, the advanced countries can offer to "de-escalate" their tariff structures and to guarantee market access to products



Imported from LDCs. In order to determine the significance and consequences of existing tariff escalation and possible measures of de-escalation, it is worthwhile to review briefly the theory of tariff structure and to assess the evidence on the added or effective protection that escalated structures afford industries in the advanced countries.

### The Theory Of Tariff Structure

Traditionally, we think of tariffs as being imposed on final products so that the domestic price per unit of goods subject to protection will be equal to the world price plus the tariff. This is an oversimplification, however, because it assumes that all intermediate stages of production activities are integrated vertically within industries. Observation suggests that this is certainly not true. It is evident, furthermore, that a substantial part of world trade consists of intermediate goods that are inputs into final products. If there are tariffs on imported inputs, the industry using these inputs will be at a cost disadvantage unless otherwise compensated. It is common, therefore, for countries to escalate their tariff schedules according to the degree of processing or stage of production of their imported goods. We thus commonly observe national tariff structures with rates rising from crude materials and foodstuffs to semi-manufactures to investment and consumer goods.

Once it is realized that tariffs are imposed at differential rates on intermediate inputs and final products, the protection or antiprotection of a tariff structure has to be analyzed in terms of the value added by domestic factors of production in the various producing activities. This focus on the effect of tariffs on the value added, or process, of an industry is thus to be distinguished from the traditional effect of tariffs on the price of the protected industry's final output.

The difference between *nominal* and *effective* rates of protection can be simply illustrated. Imagine a country without tariffs in which shirts are produced and sold at a world price per unit of \$ 10. Suppose that the value added by domestic labor and capital in the final production process is \$2 and that the remaining \$8 represents imported inputs at world prices. Now assume that a nominal tariff of 10 per cent is levied on imported shirts, thus raising the domestic price of shirts to \$11, while leaving the prices of imported inputs unchanged. The *domestic* process of shirt production will then absorb \$3 per unit of output for domestic labor and capital as compared to \$2 prior to the tariff. Thus, while the *nominal tariff* has added 10

*per cent* to the per unit price of shirts, the *effective* protection afforded to the domestic processing of shirts is *50 per cent*.

Suppose now that there is a tariff on the imported inputs. This will be equivalent to a tax on the process using these inputs so that the rate of *effective* protection on processing will be less than before. Thus, if a nominal tariff of 5 per cent is imposed on the imported inputs the input costs will rise \$8 to \$8.40, leaving only \$2.60 for the value added by domestic labor and capital on shirts selling for \$11. The *net effective rate* of protection with this assumed structure of tariffs will then be *30 per cent*, which is obtained by expressing the difference between the value added under protection (2.60) and under free trade (\$2.00) as a percentage of the value added under free trade (\$2.00).

At first blush, the theory of effective protection has great appeal because it offers an explanation of why national tariff structures are escalated and the possible impact that escalation may have on the commodity composition and direction of world trade. Moreover, the theory has important implications for international negotiation of tariff reductions. Thus, using our example above, we might observe advanced countries with zero or relatively low tariffs on unprocessed or semiprocessed raw materials and foodstuffs and rates that would increase with the degree of processing. The greater the differences between these tariffs on inputs and on final products, the more effective protection will be afforded to domestic factors engaged in processing. Advanced country tariff structures may therefore prolong LDC specialization on relatively less processed goods for export, thus depriving the LDCs of the potential benefits from developing their own processing and other manufacturing industries.

By distinguishing tariffs on inputs and on final products, the Protection afforded an industry is better gauged therefore by the effective rate of protection rather than the nominal tariff rate. The effective rate may accordingly be a better indicator than the nominal rate of the net movement of resources to particular industries in response to the differential earnings that effective protection makes possible. The distinction between effective and nominal tariff rates thus has important implications for tariff negotiations because the degree of protection may be increased or decreased, depending on the distribution of tariff reductions as between intermediate inputs and final products.

Our sketch of the theory of effective protection has been purposefully simplified in order to demonstrate the essence and potential impacts of an escalated tariff structure. In recent

years, however, the theory has been subjected to severe criticism by various academic economists and it is important to be aware of what this criticism implies. It has been argued that effective tariff rates, as usually calculated, are not reliable indicators of protection, the reason being that these measures are premised on the assumption that the various inputs are combined in fixed proportions and thus take no account of possible substitutions due to changes in wage or interest rates or in the prices of imported inputs. Moreover, it is argued that effective rates cannot be used to rank industries by the degree of protection and to predict from this ranking how resources might move. This is because, in themselves, the rates cannot capture the complex interdependencies that exist among industries and that determine how resources move as industries expand or contract in response to change in tariffs or other similar variables.

The thrust of these criticisms has thus been directed at the comparative simplicity of the theoretical model underlying most calculations of effective rates of protection. The implication is that we need models of greater complexity which make allowance for input substitutions when the prices of productive factors change and for the interdependencies that exist among industries. Some progress has in fact been made along theoretical lines in developing more complex models, but these models have not yet been perfected to the point of yielding precise quantitative estimates of the inter-industry effects of changes in tariffs and related measures. Thus, we may have to make the best of the partial estimates of effective tariff rates that have been calculated for several countries subject to fairly restrictive assumptions. So long as we remain aware of the limitations of these measures and recognize that they represent only a part of the information input into policy formulation and evaluation, policy decisions taken are not likely to be grossly in error.

Having reviewed briefly the theory of tariff structure, let us now look at some of the empirical estimates of effective tariff rates that have been made for the pre- and post-Kennedy Round periods.

### **Empirical Estimates Of Nominal And Effective Protection**

In order to calculate effective tariff rates, information is needed on a country's nominal tariff rates for intermediate inputs and final products together with coefficients on the relationship between domestic production and inputs individual industries. Ideally, we would like to have input-output coefficients that would be applicable to a situation in which there was free

trade. But since this is rarely possible, it is often necessary to infer the input-output coefficients from the existing data that reflect the influence of protection. It is also necessary to average the individual tariff rates to make them correspond with the more highly aggregated industry categories in input-output tables or the census of manufactures. This creates difficulties since there is no neutral weighting system that can be devised. Substantial inaccuracies may therefore be encountered in empirical measurements of effective tariffs.

Bearing in mind these caveats, some indication of the pre-Kennedy Round average effective and nominal tariff rates for four commodity categories separately and combined is given in Table I for selected advanced countries. The information and relationships used relate to 1962 and the tariffs for the underlying 36 industries covered were weighted by the combined imports of the five areas. Intermediate products I refers to semimediate goods at higher levels of fabrication are included in intermediate products II. The escalation of both effective and nominal tariff rates is evident proceeding from intermediate products I to consumer goods and the effective rates were substantially in excess of the nominal rates, as the theory implies. The rates on investment goods were generally the lowest.

Table I refers to the effective and nominal rates applicable to imports from all sources for the countries shown. It is necessary therefore to distinguish advanced country imports from LDCs in order to determine the effective protection that LDC products face in advanced country markets. Some evidence for the pre-Kennedy Round period is given in Table 2 with respect to the processing of selected agricultural products in the U. S. and EEC. Estimates like these are difficult to construct because there is little systematic information on the structure of costs for processing industries in the advanced countries. However, other isolated examples for the pre-Kennedy Round period, cited in the source to Table 2, suggest substantial rates of effective protection on the processing of copper, crude vegetable oil and oil cake, cottonseed and soybeans.



Table 1

Average Effective and Nominal Tariffs for four Commodity Categories for Selected Developed Countries, 1962 a  
(Percentage)

Category	United States		United Kingdom		EEC		Sweden		Japan	
	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff
Intermediate products I ..	17.6	8.8	23.1	11.1	12.0	7.6	5.3	3.0	23.8	11.4
Intermediate products II ..	28.6	15.2	34.3	17.2	28.3	13.3	20.8	8.5	34.5	16.6
Consumer goods ..	25.9	17.5	40.4	23.8	30.9	17.8	23.9	12.4	50.5	27.5
Investment goods ..	13.9	10.3	23.0	17.0	15.0	11.7	12.1	8.5	22.0	17.1
All commodities ..	20.0	11.6	27.8	15.5	18.6	11.9	12.5	6.8	29.5	16.2

a Tariff averages weighted by combined imports of the five areas.

Source: Bela Balassa, "Tariff Protection in Industrial Countries; An Evaluation", Journal of Political Economy LXXIII, December, 1965, P 591.

Table 2

Pre-Kennedy Round Effective and Nominal Protection Of Processing Of Agricultural Products In The U.S. And EEC (Percentage)

Processing industry	United States		EEC	
	Effective Tariff	Nominal Tariff	Effective Tariff	Nominal Tariff
Coconut oil (refined) ..	57.5	5.7	150.0	15.0
Jute fabrics .. ..	5.3	3.1	39.6	23.0
Cigarettes .. ..	89.0	47.2	n.a.	n.a.
Hard fiber manufactures (cordage) .. ..	38.0	15.1	n.a.	n.a.

Source:- H.G. Johnson, Economic Policies Toward Less Developed Countries. Washington: The Brookings Institution, 1959, P. 91.

**Table 3**  
Effective And Nominal Tariffs On Manufactures  
Of Export Interest To Less Developed Countries, 1962 (Percentage)

Category	United States		United Kingdom		EEC		Sweden		Japan	
	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff	Effective tariff	Nominal tariff
<i>Intermediate</i>										
<i>Products Ia</i>										
Thread and yarn ..	17.6	8.8	23.1	11.1	12.0	7.6	5.3	3.0	23.8	11.4
Wood products ..	31.8	11.7	27.9	10.5	3.6	2.9	4.3	2.2	1.4	2.7
Leather ..	26.4	12.8	25.5	14.8	28.6	15.1	14.5	6.8	33.9	19.5
Synthetic materials	25.7	9.6	34.3	14.9	18.3	7.3	21.7	7.0	59.0	19.9
Other chemicals ...	33.5	18.6	17.1	12.7	17.6	12.0	12.9	7.2	32.1	19.1
<i>Intermediate</i>	26. <sup>6</sup>	12.3	39.2	10.4	20.5	11.3	9.7	4.5	22.6	12.2
<i>Products IIa</i>										
Textile fabrics ...	28.6	15.2	34.3	17.2	28.3	13.3	20.8	8.5	34.5	16.6
Rubber goods ...	50.6	24.1	42.2	20.7	44.4	17.6	33.4	12.7	48.8	19.7
Plastic articles ...	16.1	9.3	43.9	20.2	33.6	15.1	26.1	10.8	23.6	12.9
Misc. chem. Prod...	27.0	21.0	30.1	17.9	30.0	20.6	25.5	15.0	35.5	24.9
Ingots and other steel prod.	15.6	12.6	16.7	15.4	13.1	11.6	0.0	2.5	22.9	16.8
Metal manufacture	106.7	10.6	98.9	11.1	28.9	6.4	40.0	3.8	58.9	13.0
<i>Consumer goodsa</i>	28.5	14.4	35.9	19.0	25.6	14.0	16.2	8.4	27.7	18.1
Hosiery ..	25.9	17.5	40.4	23.8	30.9	17.8	23.9	12.4	50.5	27.5
Clothing ..	48.7	25.6	49.7	25.4	41.3	18.6	42.4	17.6	60.8	26.0
Other textile articles ..	35.9	25.1	40.5	25.5	25.1	18.5	21.1	14.0	42.4	25.2
Shoes ..	22.7	19.0	42.4	24.5	38.8	22.0	21.2	13.0	13.0	14.8
Other leather goods	25.3	16.6	36.2	24.0	33.0	19.9	22.8	14.0	45.1	29.5
Bicycles and motorcycles	24.5	15.5	26.4	18.7	24.3	14.7	20.7	12.2	33.6	23.6
Precision instruments ..	26.1	14.4	39.2	22.4	39.7	20.9	35.8	17.1	45.0	25.0
Sporting goods, etc	32.2	21.4	44.2	25.7	24.2	13.5	9.1	6.6	38.5	23.2
<i>investment goodsa</i>	41.8	25.0	35.6	22.3	26.6	17.9	16.6	10.6	31.2	21.6
Nonelectrical machinery	13.9	10.3	23.0	17.0	15.0	11.7	12.1	8.5	22.0	17.1
Electrical machinery ..	16.1	11.0	21.2	16.1	12.2	10.3	11.6	8.8	21.4	16.8
<i>All commoditiesa</i>	18.1	12.2	30.0	19.7	21.5	14.5	17.7	10.7	25.3	18.1
	20.0	11.6	27.8	15.5	18.6	11.9	12.5	6.8	29.5	16.2

aRefers to average for all the products in the category. Individual products listed refer to products of export interest to LDCs. Tariff averages are weighted by combined imports of the five areas.

Source: Same as Table 2, pp. 174-75.

Finally, in Table 3, manufactured products of export interest to LDCs have been identified *vis-a-vis* the aggregates shown already in Table 1 for the pre-Kennedy Round period. These estimates demonstrate clearly that advanced country tariffs posed substantial obstacles to imports of manufactures that the LDCs may have been capable of exporting. Whether the LDCs would in fact have done so if the tariffs were not present cannot of course be inferred directly from the calculations themselves. The outcome would depend on the degree to which the LDCs could expand their production of these goods *vis-a-vis* competing advanced country suppliers and on the extent to which the LDCs might be able to develop new export products. In addition we would have to know how responsive demand in the advanced countries was for increased manufactured imports from the LDCs.

Turning now to the more recent evidence, it is well established that tariffs were reduced substantially in the Kennedy Round. But there is nevertheless still ample evidence of relatively high rates of effective protection on exports of interest to the LDCs. For example, in the case of primary commodities, it is evident from Table 4 that the post-Kennedy Round (1972) tariff structure entails substantial effective protection for processing industries in the advanced countries. On the basis of the median tariff rates listed at the bottom of the table, Japan has the highest nominal (15.6) and effective (49.2) rates, followed by the EEC (12.0 and 36.1) and the U.S. (9.4) and (18.4). However, when account is taken of the variable tariff levies imposed by the EEC under the Common Agricultural Policy as well as nontariff barriers (NTBs) on textile products, the EEC registers the highest median effective rates (54.9 and 58.6) in comparison to the U.S. and Japan.<sup>1</sup>

It would be desirable to have information on the advanced country nominal and effective post-Kennedy Round tariff rates on total manufactures and manufactures of interest to the LDCs. Unfortunately, the relevant calculations are somewhat out of date, being based on input coefficients from the early 1960s and using 1964 imports for weighting purposes. The results are nevertheless of interest and are summarized in Table 5. It is evident that even though the Kennedy Round resulted in substantial reductions in nominal and effective tariff rates for the advanced countries listed, the post-Kennedy Round levels of effective protection were nearly twice the nominal levels with respect to total imports of manufactures. But what is especially

<sup>1</sup> Nominal and effective tariff rates are also given for Norway and Sweden in the second article by A.J. Yeats cited in Table 4.

noteworthy from the LDC standpoint is that nominal and effective tariff reductions in the Kennedy Round were less on products of interest to the LDCs than for total advanced country imports of manufactures. Thus, both the nominal and effective post-Kennedy Round tariff levels appear to be significantly more restrictive with respect to LDC exports of manufactures than for advanced country exports of manufactures.

The pre- and post-Kennedy Round tariff rates presented in the foregoing tables are by no means the last word on the subject. These rates have been calculated on the assumptions that input coefficients are constant and that interdependencies among industries can be ignored. Moreover the input coefficients and tariffs are prone to recording and classification inaccuracies and to possible biases due to the methods of aggregation and weighting employed for estimating purposes.<sup>2</sup> Despite all these problems, the message conveyed by the available data is that advanced country tariff structures provide substantial protection to their domestic labor and capital resources engaged in the processing of foodstuffs and raw materials and in the production of various industrial products. This protection is evidently more restrictive with respect to products of export interest to the LDCs than is the case for advanced country exports.<sup>3</sup>

### Accommodating the Interests of the Advanced Countries and LDCs in the MTN

It would appear from our discussion that a strong case can be built for multilateral tariff reductions that would be beneficial to both advanced countries and the LDCs. If the relevant advanced country tariffs were reduced substantially, structural changes would occur over

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<sup>2</sup> For an evaluation of the direction and magnitude of bias in effective rates due to the use of production coefficients pertaining to a previous period, see A.J. Yeats, "An Analysis of the Effect of Production Process Changes on Effective Protection Estimates," Review of Economics and Statistics, 58, February 1976, pp. 81-85.

<sup>3</sup> There is some evidence that the use of specific tariffs as compared to ad valorem tariffs in the advanced countries has a differential regressive effect on LDC exports. A.J. Yeats, "An Analysis of the Incidence of Specific Tariffs on Developing Country Exports", Economic Enquiry, forthcoming, shows, for example, that U. S. specific tariffs impose ad valorem equivalents on LDCs that are roughly double those imposed on industrial countries. It is interesting to note, furthermore, that existing transportation charges may weigh comparatively more heavily on LDC products because of the high bulk-low-value nature of their exports. Some estimates are given in J. M. Finger and A.J. Yeats, "Effective Protection by Transportation Costs and Tariffs: A Comparison of Magnitudes" Quarterly Journal of Economics, 90, February 1976, pp. 169-176.



Table 4

Estimated post-Kennedy Round (1972) Nominal and Effective Rates of Protection on Processed Materials in the U.S., Japan, and EEC (Percentage)

Commodity group	United States			Japan		EEC			
	Nominal Protection	Effective Protection		Nominal Protection	Effective Protection	Nominal Protection	Effective protection		
		Tariffs	NTBs				Tariffs	Var. Levies	NTBs
<i>Foods and feeds</i>									
Meat products . . . .	5.9	10.3	5.0	17.9	69.1	19.5	36.6	165.0	90.0
Preserved sea foods . . . .	6.0	15.6	20.0	13.6	34.7	21.5	52.6	52.6	50.0
Preserved fruit and veg. . . .	14.8	36.8	35.0	18.5	49.3	20.5	44.9	74.7	74.7
Cheese . . . .	11.5	34.5	50.0	35.3	174.7	23.0	58.8	276.0	180.0
Butter . . . .	10.3	46.7	70.0	45.0	417.7	21.0	76.5	1,327.7	900.0
Condensed and evap. milk . . . .	10.7	29.6	50.0	31.7	153.9	21.3	44.3	334.4	400.0
Corn milling . . . .	4.3	0.0	15.0	25.6	68.7	12.0	21.8	82.1	82.1
Rice milling . . . .	36.2	27.6	320.2	15.0	49.0	16.0	70.3	105.9	105.9
Prepared feeds . . . .	6.2	7.4	0.0	0.7	-21.2	5.6	0.0	-50.0	-20.0
Flour and cereal prep . . . .	10.9	34.8	70.0	23.8	75.4	20.1	48.9	94.7	94.7
Bakery products . . . .	1.9	0.0	-10.0	20.9	17.3	12.0	0.9	0.0	0.0
Pickles and dressings . . . .	9.4	-26.9	-20.0	21.9	59.8	20.1	25.9	25.9	25.9
Roasted coffee . . . .	0.0	0.0	0.0	35.0	137.1	15.2	35.7	35.7	35.7
Cocoa powder and butter . . . .	2.6	22.0	22.0	15.0	125.0	13.6	76.0	76.0	76.0
Misc. food products . . . .	2.7	0.2	5.0	28.6	58.2	12.0	6.7	6.7	6.7
<i>Wood, paper and rubber products</i>									
Wood products . . . .	10.4	18.3	18.3	12.4	22.0	8.2	9.5	9.5	9.5
Paper products and wood pulp . . . .	2.7	5.5	5.5	6.6	12.1	7.4	20.1	20.1	20.1
Rubber products . . . .	6.1	12.5	12.5	9.3	20.2	8.3	19.0	19.0	19.0
<i>Yarns, thread and fabrics</i>									
Wool yarn and thread . . . .	30.7	62.2	80.0	5.0	13.3	5.4	16.0	16.0	20.0
Wool fabrics . . . .	46.9	90.8	100.0	14.7	35.1	14.0	32.9	32.9	50.0
Cotton yarn and thread . . . .	8.3	12.0	10.0	8.4	25.8	7.0	22.8	22.8	30.0
Cotton fabrics . . . .	15.6	30.7	65.0	7.2	4.9	13.6	29.7	29.7	60.0
<i>Vegetable and animal oils</i>									
Coconut oil . . . .	9.4	16.3	16.3	9.0	49.2	11.5	132.9	132.9	132.9
Cottonseed oil . . . .	59.6	465.9	465.9	25.8	200.3	11.0	79.0	79.0	79.0
Groundnut oil . . . .	15.0	6.7	6.7	14.2	96.5	11.3	139.7	139.7	139.7
Soyabean oil . . . .	22.5	252.9	252.9	25.4	268.3	11.0	148.1	148.1	148.1
Rapeseed oil . . . .	20.8	60.9	60.9	15.1	22.3	9.0	57.2	57.2	57.2
Palm kernel oil . . . .	3.2	29.2	29.2	7.2	49.2	10.5	141.5	141.5	141.5
Animal and marine fats and oils . . . .	4.1	10.7	10.7	5.1	-1.9	5.2	-26.8	-26.8	-26.8
<i>Leather, tobacco and soap</i>									

Table 1

Summary of the results of the study of the effect of the treatment of the disease

No.	Sex	Age	Race	Religion	Occupation	Marital Status	Disease		Duration	Treatment	Result
							Onset	Course			
1	M	35	W	C	Teacher	M	...	...	...	...	
2	F	42	W	C	Homemaker	M	...	...	...	...	
3	M	28	N	C	Farmer	M	...	...	...	...	
4	F	55	W	C	Teacher	M	...	...	...	...	
5	M	60	W	C	Farmer	M	...	...	...	...	
6	F	30	W	C	Homemaker	M	...	...	...	...	
7	M	45	W	C	Teacher	M	...	...	...	...	
8	F	50	W	C	Homemaker	M	...	...	...	...	
9	M	38	W	C	Farmer	M	...	...	...	...	
10	F	48	W	C	Homemaker	M	...	...	...	...	
11	M	52	W	C	Teacher	M	...	...	...	...	
12	F	32	W	C	Homemaker	M	...	...	...	...	
13	M	40	W	C	Farmer	M	...	...	...	...	
14	F	58	W	C	Teacher	M	...	...	...	...	
15	M	65	W	C	Farmer	M	...	...	...	...	
16	F	25	W	C	Homemaker	M	...	...	...	...	
17	M	33	W	C	Teacher	M	...	...	...	...	
18	F	43	W	C	Homemaker	M	...	...	...	...	
19	M	53	W	C	Farmer	M	...	...	...	...	
20	F	63	W	C	Teacher	M	...	...	...	...	

Table 5

Averages Of Effective And Nominal Tariffs On Manufactured Products Before And After  
The Kennedy Round\*  
(Percentage)

	Tariff averages on the total imports of manufactures		Tariff averages on imports of manufactures from developing countries	
	Effective	Nominal	Effective	Nominal
<b>United States</b>				
Pre-Kennedy Round	20.0	11.5	35.4	17.9
Post-Kennedy Round ..	11.6	6.8	23.9	12.4
Ratio .. ..	58	59	68	69
<b>United Kingdom</b>				
Pre-Kennedy Round ..	27.8	15.2	37.3	
Post-Kennedy Round ..	16.0	9.1	27.6	14.1
Ratio .. ..	58	60	74	72
<b>European Economic Community</b>				
Pre-Kennedy Round ..	18.6	11.0	27.7	14.3
Post-Kennedy Round ..	11.1	6.6	16.9	9.4
Ratio .. ..	60	60	61	66
<b>Sweden</b>				
Pre-Kennedy Round ..	12.5	6.6	21.2	9.8
Post-Kennedy Round ..	6.7	3.8	14.6	6.6
Ratio .. ..	54	58	69	67
<b>Japan</b>				
Pre-Kennedy Round	29.5	16.1	36.7	18.0
Post-Kennedy Round ..	16.4	9.4	20.2	
Ratio .. ..	56	58	55	65

\*The pre-Kennedy Round averages differ slightly from the estimates reported in Tables 1 and 3 above.

Weights are based on 1964 trade.

Source: Bela Balassa, "The Structure of Protection in Industrial Countries and Its Effects on the Exports of Processed Goods from Developing Countries," in Part II of The Kennedy Round: Estimated Effects on Tariff Barriers. New York: United Nations, 1968, p. 208.

time in these countries, so that there would be less domestic processing of primary products and a shift in the composition of industrial production towards more technological and human-capital intensive goods. The mirror image of these changes in the LDCs would be to expand the domestic processing and export of materials and the production and export especially of standardized and relatively labor-intensive manufactured goods.

Adjustment problems would no doubt be encountered in the advanced countries as these structural changes unfolded, and each case might require somewhat different treatment. But, as we have noted, there may be compelling reasons for the advanced countries to confront these issues immediately and directly in order to counteract the incipient actions by many LDC producing countries to engage in joint efforts to restrict production and trade for the purpose of raising world prices of their primary exports.

The occasion of the MTN may be a propitious time for combining international action on trade liberalization with measures designed to assure stable supplies and prices of primary commodities in world trade. With respect to trade liberalization *per se*, the common objective of all participating nations in the MTN is to seek the maximum possible degree of liberalization that will most enhance their economic welfare. The increase in welfare will be greater, the lower the domestic adjustment costs encountered due to possible difficulties in effecting resource movements within and among industries.

Since the advanced countries especially may be anxious to minimize their adjustment costs, they will be reluctant to offer sizable tariff concessions on industries judged to be particularly vulnerable to competition from increased imports. While this reluctance is understandable, the result may be to circumscribe seriously the depth and coverage of tariff reductions in the MTN. Indeed, the record to date of advanced country commercial policy with respect to the LDCs is certainly not encouraging. We have already noted that the advanced countries resorted to quantitative limitations on textiles imports and have been urged frequently by domestic interests to do the same for other potentially vulnerable industries. The chances are that similar pressures would emerge if domestic processing industries were exposed to greater import competition. It is vitally important, if economically meaningful tariff reductions are to be made, that domestic interests be reassured of assistance in case of difficulty. The best means of reassurance is a liberal program of adjustment assistance combined with overall national measures to sustain full employment.



From the LDC standpoint, the issue is to gain access to advanced country markets with virtually complete certainty. Once access is obtained, the LDCs will be faced with the need to restructure their own domestic economies in order to take advantage of the increased export opportunities. Such restructuring will necessitate changes in the pattern of LDC protection, which in many countries has discriminated against the primary export industries and in favour of domestic manufacturing. Unless these changes can be successfully implemented, the LDC responses to trade liberalization may be limited in many instances.

An important issue that will require attention is how to relate advanced country tariff reduction to existing preferential arrangements that involve LDCs. The nominal and effective tariff rates cited earlier are based upon MFN tariffs. These rates may not reflect the impact of preference therefore, to the extent that preferences matter. While there are significant non-economic considerations at stake in the granting of preferences, it might be argued that multilateral tariff reduction by the advanced countries would benefit LDCs as a group. This could be important as a counter to the formation of LDC commodity blocs, particularly when some potential participants are not parties to existing preferential arrangements. In those instances in which the removal of preferences would create adjustment problems, the advanced countries might institute appropriate compensatory measures for the LDCs involved.

If trade liberalization is pursued multilaterally and market access in advanced country markets is unconditionally guaranteed, there would be no point in continuing the GSP. This would be no great loss because there is little evidence that GSP has much impact on LDC exports of manufactures. What should be stressed is that LDC efforts would have a much higher payoff in contrast to GSP if the LDCs were able to bring about reductions in existing advanced country tariff levels especially on processed materials and if they could exact commitments from the advanced countries to refrain from quantitative restrictions on textiles and other manufactures.

A final word is in order concerning whether nominal or effective tariffs should be used as the basis for the MTN. As already noted, the problems with effective tariffs are in obtaining detailed and up-to-date information on input coefficients and in working out practicable measures to take into account the effects of tariff changes on these coefficients and possible interdependencies among industries. Needless to say, these problems are difficult to surmount. However, it may not be necessary to do so since it turns out that effective and nominal tariff rates are

highly correlated for individual countries.<sup>4</sup> This does not mean that we can predict the tariff levels and industry rankings for one country based on another country's relationships. But if we have information on nominal tariffs by product or industry for given countries, this may be all we need, particularly if tariff reductions are concentrated on industries engaged in the processing of materials and in the production of consumer goods. For in this event, substantial reductions in nominal tariffs will result in comparable reductions in effective tariffs.

### Conclusion

The MTN provide a unique opportunity for accommodating the interests of the advanced countries and the LDCs. This accommodation can be achieved by tariff and related concessions by the advanced countries that would enable the LDCs to gain improved access for their exports in advanced country markets. In return, the LDCs would commit themselves to refrain from organizing commodity markets with price-raising objectives and to guarantee stable supplies of primary commodities.

There is a clear rationale for advanced country tariff concessions *vis-a-vis* the LDCs in view of the evidence that advanced country tariff structures are biased against actual and potential LDC exports of processed materials and finished manufactures. In addition, the advanced countries have taken other measures of commercial policy that have been similarly discouraging to LDC trade, as for example in the case of quantitative restrictions on textile imports. In this light, if the advanced countries are willing to reduce tariffs and ease their quantitative restrictions in order to encourage LDC exports, there will be less incentive for the LDCs to organize commodity producing interests for the purpose of limiting production and raising prices.

It is of the utmost importance that the advanced countries firmly commit themselves to the guarantee of market access for LDC products. Otherwise there will be little incentive for the LDCs to institute policies that will expand their domestic processing industries and production of finished manufactures for export. Guaranteed market access by the advanced countries means that they will have to insure that adequate programs of adjustment assistance are available to deal especially with transitional unemployment that may arise in industries that experience

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<sup>4</sup> See B.I. Cohen, "The Use of Effective Tariffs", *Journal of Political Economy*, 79, January/February, 1971, pp. 128-41.

difficulty in competition from increased imports. The LDCs, in turn, will need to liberalize their own tariff structures which have commonly been biased against primary products and in favor of importsubstituting industries.

If the advanced countries agree on substantial tariff reductions *vis-a-vis* the LDCs, these reductions should be offered on a multilateral basis to all LDCs. This would avoid arrangements that are discriminatory in favor of particular LDCs to the possible detriment of others. The multilateral extension of tariff reductions would mean that existing preferential arrangements for LDCs, including the GSP, be discontinued.

In order to measure the effect of protection when there are differential tariffs on intermediate inputs and final products, it was shown that effective tariff rates were preferred to nominal rates. However, there are many problems in calculating effective rates that are difficult to resolve. Fortunately, these problems may be sidestepped in view of pervasive evidence that industry rankings based on effective and nominal tariffs are highly correlated for individual countries. Tariff negotiations can be confined therefore to reductions in nominal tariffs, recognizing of course, that the greatest reductions should be concentrated on the parts of the tariff structure that will reduce effective protection especially on processed materials and consumer goods.