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EFFECTIVE PROTECTION AND INTERNAL TAXES

Note by the Secretariat

1. In the course of the work of Group 3(f), reference has been made to the implications of effective protection provided by the tariff structure in certain developed countries for exports of semi-processed and processed tropical products from developing countries. Mention has also been made of the application of internal taxes, especially selective taxes, to certain tropical items, in particular, the beverage products and bananas. Details of tariffs on semi-processed and processed products and internal taxes applied to tropical products are contained in the documentation which has been before Group 3(f).
2. During the preparatory work for the trade negotiations, the Committee on Trade and Development undertook a preliminary examination of certain aspects affecting trade in tropical products including effective protection and internal taxes on the basis of documentation provided by the secretariat. The Committee agreed that this documentation should be brought to the attention of any machinery established for the negotiations, so that full use could be made of the information provided.
3. The secretariat is accordingly bringing to the attention of Group 3(f), a note on effective protection and internal taxes originally issued as COM.TD/W/169/Add.2¹, which is reproduced hereafter.

¹The information contained in COM.TD/W/169 relating to tariffs, non-tariff measures and trade flows for certain tropical products was revised and issued as MTN/3F/W/3 and Addenda for consideration at earlier meetings of the Group.

EFFECTIVE PROTECTION AND INTERNAL TAXES - TROPICAL PRODUCTS

Note by the Secretariat
COM.TD/W/169/Add.2

1. At the twenty-third session of the Committee on Trade and Development, it was suggested that the secretariat might provide factual summaries of conclusions contained in existing studies of (i) effective protection provided by the tariff structure to the processing of tropical products in importing countries and (ii) the effects of internal taxes on trade and consumption of tropical products. While there is now considerable literature available on effective protection in general, studies related specifically to tropical products appear to be more limited. The following paragraphs summarize such information on these two aspects as has come to the knowledge of the secretariat. It is possible that other studies have been made, particularly on the impact of internal taxes on trade and consumption of tropical products, which have not been available to the secretariat in the short time provided for the preparation of this paper. Therefore, this note should not be treated as an exhaustive compendium of the material issued on the subjects under consideration.

Effective protection

2. A discussion of the technical aspects of effective protection is to be found in a number of publications including the reference "Effective Tariff Protection"¹, especially Chapter I entitled "A Non-Specialist Introduction to the Theory of Effective Protection, Policy Implications and Controversies" by H.G. Grubel. According to Grubel, the theory of effective protection² contributes substantially to the understanding of how the structure of nominal tariffs affects the production pattern of a country by specifying what effects tariffs have on the value added, or processes, of an industry rather than on the price of the protected industry's output. Thus, while the nominal tariff rate applying to an industrial product may

¹"Effective Tariff Protection" contains proceedings of a conference sponsored by GATT and the Graduate Institute of International Studies, Geneva, 17 to 20 December 1970.

²A summary of views expressed concerning the limitations of the concept of effective protection is contained in the Annex.

be defined as the difference between the unit price of an industry's output with and without protection, the rate of effective protection may be defined as the difference between the value added in processing per unit of output with and without protection.¹

3. Grubel also suggests that the low nominal tariffs on processed vegetable oils, roasted and processed coffee and cocoa butter in combination with zero tariffs on the raw material can provide a relatively high level of effective protection to the processing of these items in the developed countries and consequently militate against the development of processing industries for tropical products in the developing countries. He gives an example of this with regard to the processing of cocoa butter from cocoa beans.

4. In a study prepared by the GATT secretariat in 1966 on the First Six-Year Plan of Nigeria, a note on the effects of differential tariffs (pre-Kennedy Round) was included, showing calculations of the effective protection given to shelled groundnuts and processed groundnut products and cocoa and processed cocoa products of interest to Nigeria, in the markets of the United Kingdom, the European Economic Community and the United States. The study indicated that at that time the levels of effective protection were, in many cases, high in relation to nominal tariff rates. The Group of Experts on Trade and Aid Studies, when examining the secretariat note on the Nigerian Development Plan, expressed the opinion that, in connexion with effective protection on processed cocoa products, a reduction or elimination of these tariffs would be of substantial value to the processing industries of cocoa producing countries. The Group recommended that the CONTRACTING PARTIES devote attention to this problem in the Kennedy Round negotiations. With regard to groundnuts and their derivatives, the Group expressed the view, *inter alia*, that the reduction or abolition of tariffs on groundnut oil and raw and preserved groundnuts for direct human consumption would materially contribute to the alleviation of difficulties experienced by Nigeria.

¹As a simple example, Grubel refers to the situation of a country without tariffs in which automobiles are sold at the world price of \$10,000. The value added by labour in the final assembly process is assumed to be \$2,000, while the value of all the remaining inputs is \$8,000. For the sake of simplicity, it is assumed that the prices of all the non-labour inputs are equal to their world prices. If a nominal tariff at the rate of 10 per cent is imposed on imported automobiles, the price of cars is raised to \$11,000, but the prices of all the non-labour inputs remain unchanged. The domestic process of automobile assembly can thus spend \$3,000 per unit of output on the labour as contrasted with the \$2,000 per unit before the tariff. The theory of effective protection thus implies that under these conditions the nominal tariff of 10 per cent on the final product has resulted in an effective protection of 50 per cent for the assembly process on value added per unit of output. For any given nominal tariff rate, the effective rate is greater the smaller the value added of a process.

5. In connexion with the preparation of background material for balance-of-payments consultations with Ghana in 1968 (BOP/83/Rev.1), the GATT secretariat noted that the effective protection afforded by the structure of post-Kennedy Round nominal rates of duty on certain tropical products such as cocoa paste and cocoa butter would continue to be considerable. While the value added in processing for these two items was known to be less than 15 per cent, it was estimated that the effective rates of protection would be somewhere between six and ten times the nominal rates of duty applied in a number of importing countries. It was suggested that effective protection of these orders of magnitude went some distance to explaining why, with the exception of the United Kingdom, the proportion of cocoa imported into consuming countries in processed form was less than one tenth of the total. In its report on the consultations (BOP/R/26), the Committee on Balance-of-Payments Restrictions noted that there was need for early action directed particularly to the reduction of tariffs on Ghana's exports, especially those which were higher for processed goods than for primary products.

6. A manual¹, published in 1968, dealing with commercial policy matters of concern to developing countries refers, inter alia, to the protective effects of progressive tariffs. It is suggested that the smaller the value added in the fabrication process, the greater the protective (and possibly prohibitive) effect of progressive tariffs. In this connexion, the estimates provided in paragraph 5 with respect to value added in the processing of cocoa butter and cocoa paste are relevant.

7. A study² by Professor Bela Balassa of the possible impact of Kennedy Round concessions on exports of processed goods from developing countries shows, inter alia, the nominal and effective rates of protection on the basis of post-Kennedy Round duty rates in the United States, the United Kingdom, the EEC, Sweden and Japan. More recent estimates of effective protection in the United States have been made by the United States Tariff Commission.³ Although the estimates contained in the studies sometimes show different results and should be regarded as indicative of rough orders of magnitude, it remains apparent that the effective rates of protection on a number of processed tropical products are relatively high in certain importing countries. Thus for instance, for cocoa butter and cocoa powder, the effective rates of protection in the countries examined in the two studies vary between 15 and 19 per cent at the lower extreme and 126 per cent at the higher. For crude and refined groundnut or coconut oils, effective rates of about 90 and 180 respectively are indicated for the EEC and effective protection of 86 per cent is estimated for coconut oil in the United States and Japan. For manufactures of rubber, the estimates of effective rates indicate a much lower level of protection: between 6 and 11 per cent in the United States, about 10 per cent in Japan and 16 per cent in the EEC and Sweden.

¹H. Bachman - The External Relations of Less-Developed Countries; Praeger Special Studies in International Economics and Development.

²UNCTAD document TD/6/Rev.1, 1968.

³United States Tariff Commission Staff Research Studies, No. 2, 1972, page 117.

Internal charges

8. Internal revenue charges applied to primary commodities whether imported or domestically produced have been examined in a number of studies and discussed in certain international organizations in connexion with the effects of such charges on trade and consumption of these items. While representatives of producing and exporting countries of tropical products have expressed the view that internal charges have an inhibiting effect on trade and consumption, representatives of certain importing countries have stated that they have only a marginal effect because the price elasticity of demand for tropical products is generally low.

9. An early discussion of the effects of revenue charges on tropical products appeared in the Haberler Report.¹ The report stated that in addition to the obstacles created for imports by agricultural protectionism in a number of industrial countries, access was also limited by duties imposed exclusively or mainly for the purpose of raising revenue. In some cases fiscal duties were also applied at that time with the stated purpose of reducing, through higher prices, the consumption of goods regarded as non-essential or undesirable from the health or social viewpoint. Although fiscal charges that might be described as revenue duties on primary products were applied by some countries on bananas, spices and other tropical products, by far the heaviest incidence was imposed on coffee, tea, cocoa and tobacco which represented an important share of exports of developing countries.

10. The report concluded that domestic revenue duties were a more important obstacle to the expansion of the sale of some agricultural products (in particular, tropical beverages) in the industrial countries, than they were to the expansion of the markets for industrial production in the primary producing countries. The report also suggested that there was substance behind the feeling of disquiet in relation to this issue on the part of exporters of primary products.

11. In the Provisional Indicative World Plan for Agricultural Development², issued in 1969, FAO has, inter alia, considered the implications of commodity balances on the basis of aggregated demand and production objectives to 1985 and reviewed the main long-term issues posed by trade in particular commodities including certain tropical products. With regard to the scope for increasing import demand for coffee above the projected levels, the report suggested that this would require the abolition of import tariffs and turnover or other taxes which raised retail prices. While stating that substantial price reductions

¹Trends in International Trade; A Report by a Panel of Experts - GATT, Geneva 1958.

²Especially Chapter 14, Commodity Balances and Trade Policy Issues (CCP69/21).

could result in consumers shifting to better quality coffee without necessarily increasing the quantities consumed, it was pointed out that the situation varied from country to country. However, the overall indication of various studies was that some rise in imports could be secured.

12. Countries with substantial taxes and other restrictions on tea consumption accounted annually for about 3 per cent of the volume of world trade in tea. While the abolition of import duties and internal taxes on tea could have a significant effect on raising consumption in those countries, in the world as a whole, it was estimated in the FAO report that the increase would be less than 1 per cent. The reduction or abolition of taxes and duties on cocoa and chocolate products would be likely to result in only marginal increases in demand because the import price of beans accounted for a small proportion of the retail price and the price elasticity of demand was low.

13. With regard to bananas, past experience in a number of high income countries had indicated that per caput consumption of bananas in importing countries tended to level out at about 9 to 10 kilogrammes when income elasticity of demand approached zero. Per caput consumption in a number of high income countries had not so far reached that level. If duties and taxes in such countries were removed, it was estimated by the FAO that consumption in these areas could rise by as much as 500,000 tons.

14. Revenue duties and fiscal charges applied to primary products in developed countries have been the subject of discussion at each of the three sessions of UNCTAD on the basis of background material provided in UNCTAD documentation.¹ It was suggested in document TD/115 dated January 1972, that because the price elasticity of demand for tropical products was generally relatively low, the adverse effects of the existing duties on demand and imports (hence the potential export gains of the supplying countries from the removal of the duties) were small in comparison with the revenues collected by taxing authorities. However the point was made that imports were impeded to some extent and the additional consideration that the taxes - falling on consumers rather than taxpayers - were regressive, provided good reasons favouring the removal of taxes. As an alternative to the removal of internal charges on tropical products, the report suggests that part of the proceeds of such charges could be paid to the exporting developing countries involved.

¹Proceedings of UNCTAD, Volume III - Commodity Trade, 1964;
UNCTAD Second Session, 1968 - Volume II, Commodity Problems and Policies;
UNCTAD Third Session, 1972 - Commodity Problems and Policies (TD/115).

ANNEX

Effective Protection

The concept of effective protection offers an attractively simple explanation of the effects of tariffs on the conditions of production in the protected market. However, the reader should be aware of both the basic conceptual limitations of this analysis as it has been developed so far, and of the technical difficulties encountered in its application to empirical data.¹

The main conceptual limitation of the analysis consists in its partial equilibrium framework. This framework makes the analysis suitable for exploring the effects of changes in tariff protection on an individual industry when only the tariffs applying to that industry are changed, all other conditions remaining constant. When all tariffs are changed, whether by equal or unequal amounts, the situation calls for a general equilibrium analysis, since it must be assumed that the general change in tariffs will have repercussions on the relative prices of land, labour and capital, as well as on the equilibrium rate of exchange. In consequence of these changes, the relative proportions in which the basic productive factors are combined in individual lines of production must be expected to change, leading to a further change in the composition of output. An analysis of effective protection which could cope with all these developments has not yet been conceived. When a general reduction of tariffs takes place, the theory as presently developed makes it possible to conclude that effective protection will also be generally reduced; it does not, however, permit a comparison of individual industries in the context of the extent of effective protection they have lost, or the extent of effective protection they still enjoy.

The practical difficulties of measurement of effective protection stem essentially from two sources. First, the concept of effective protection is based on the difference of value added by manufacturing under protected and free-trade conditions. Since conditions of production without protection seldom exist, the "correct" value added cannot be measured with precision. The level of protection of inputs and outputs could be roughly estimated, but account cannot be taken of the distortions in the production process resulting from the application of protective measures.

¹All these problems are discussed in detail in Effective Tariff Protection, H.G. Grubel and H.G. Johnson, editors, Geneva 1971; see especially pages 1-41, 147-164, 247-260.

Second, since a production process only seldom yields one single commodity but, in most cases, results in a range of products, the value added and the cost of inputs cannot always be allocated precisely to one product. Calculations have therefore to be undertaken for a group of products which are subject to different rates of duty. The tariff averaging procedures applied in such cases also introduce a serious distortion in the calculation of effective rates.

For these two reasons, and for the fundamental theoretical reason discussed above, numerical estimates of the level of effective protection in individual industries cannot indicate more than very approximate orders of magnitude.