STATISTICAL COMMISSION
Ninth session
Item 5 of the provisional agenda

INDEXES OF QUANTUM AND UNIT VALUE FOR EXTERNAL TRADE

(Memorandum prepared by the Secretary-General)

1. At its eighth session the Commission adopted the following resolutions (E/2569, paras. 19, 20):

"The Statistical Commission

"Recommends that countries should endeavour to compile sub-indexes by commodity classes on the basis of the 'sections' of the SITC and suggests that countries may wish to compile summary indexes for the following categories:

(a) Food, beverages, and tobacco (SITC sections 0 and 1);

(b) Manufactured goods other than food, beverages, and tobacco (SITC sections 5, 6, 7 and 8);

(c) Crude materials other than fuels (SITC sections 2 and 4);

(d) Fuels (SITC section 3)."

"Requests that the Secretary-General obtain the views of Member Governments on the methods which they might employ for making a periodic check of the reliability of their indexes of quantum and unit value in external trade to determine, inter alia, whether or not a change of base is advisable."

2. The national indexes of the following countries are currently analysed on the basis of the sections of the SITC: Austria, Burma (imports only), Denmark, Japan,

1/ This paper continues the discussion of the topics treated in a paper (E/CN.3/171) of the same title considered by the Commission at its eighth session.

56-01276
Malaysia, New Zealand (export unit value index only), Philippines, Trinidad and Tobago, Union of South Africa and United Kingdom.

3. Australia, Ireland and New Zealand (for imports) are planning to analyse their indexes by sections of the SITC. Canada and the Netherlands have informed the Statistical Office that analysis based on the SITC of their indexes is under consideration.

4. In order to improve the reliability of their indexes of quantum and unit value, most Governments have recently recomputed them on a postwar base or are planning to do so. In addition, many Governments keep under review the homogeneity of the basic headings of their trade statistics and at intervals calculate indexes by both the Laspeyres and Paasche formulas to find the difference between the results of base period and current period weights.

5. If the commodity composition of its trade is widely diversified, a country often finds that the movement of its indexes of quantum and unit value is relatively independent of the particular choice among possible systems of weighting and that, therefore, a single index number can be used as if it had simultaneously the properties of index numbers computed according to a variety of formulas. If, on the other hand, the pattern of movement of the index is radically changed by changes in the weighting, index numbers can only be used for purposes to which their formulas specifically fit them; thus, for instance, in such a case, a Laspeyres quantum index on base 1953 (which is, by its formula, adapted to revaluing trade in other years at 1953 prices) might prove unsuitable for revaluing trade in 1954 prices.

6. Countries which principally export primary commodities find the movement of their export indexes greatly influenced by the choice of the period used to provide the weighting pattern. This is because of the fact that in such indexes there is a concentration of weights in a small number of commodities which are characterised by instability of prices and high elasticity of demand. The weights, being the export values in the period selected as the basis for weighting, may therefore vary widely between periods due to changes in quantity exported and changes in price. The effect of the recent trends in coffee prices on the indexes of countries which export important quantities of coffee provides an example of this difficulty. Where difficulties of this kind are acute, it is not always possible to use a single index for a variety of purposes. Countries whose exports are principally made up of a few primary commodities, may therefore find it necessary, in order,
for example, to revalue current exports first at 1953 and then at 1954 prices, to calculate two quantum indexes, one with the weights of the year 1953, the other with the weights of the year 1954.

7. As it will often be difficult for the Government of a country whose exports are concentrated in a few primary commodities to foresee all the uses to which its aggregate indexes of quantum and unit value may have to be put, the Government may wish, whenever it publishes time series in these indexes, to publish for the same periods quantum and unit value indexes for each of their principal export commodities. These data, together with a description of each aggregate index and information on the importance in the aggregate of each primary commodity, would enable anyone who cannot use the aggregate index in its original form rapidly to adjust it for his specific purpose. The Secretary-General therefore plans to invite the attention of countries whose exports are largely composed of primary commodities to the informative value of regular presentations of data on the principal components of their quantum and unit value indexes for aggregate exports. Such presentations would, as just explained, consist principally of time series showing the effect on the aggregate indexes of the behaviour of each principal export commodity.

8. The Commission may wish to take note of the progress being made in analysing indexes of quantum and unit value in terms of the sections of the SITC. The Commission may also wish to express its views on the presentation of analytic detail relevant to the use of national indexes of quantum and unit value.