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CONSTRUCTION OF PRICE AND QUANTITY INDEXES IN NATIONAL ACCOUNTING
(Progress report submitted by the Secretary-General)

I. Introduction

1. At its third session the Statistical Commission decided to include in its work programme the development of index numbers for use in deflating estimates of national income (E/795). During its fourth session the Commission, taking note of the views expressed in a paper prepared by the Secretariat, recommended that the Statistical Office (a) should continue its studies of the problems involved in obtaining series of national income estimates in terms of constant prices, and (b) should develop recommendations for expressing estimates of national income in constant prices, giving particular attention to the deflation of the components of national expenditure (E/1312). At its fifth session the Commission recommended that the Statistical Office should complete its work on the measurement of national income expressed in constant prices (E/1696, Rev.1).
2. The Statistical Office has collected and published available estimates of national income in constant prices over several years. Published data were given in Appendix III of National Income Statistics of Various Countries, 1938-1947; in Appendix II of National Income Statistics of Various Countries, 1938-1948; in Statistics of National Income and Expenditure, Statistical Papers, Series H, No. 1 and No. 2; and in certain issues of the Monthly Bulletin of Statistics and the Statistical Yearbook. In several of these publications the statistics were accompanied by brief descriptions of the methods of measurement used. Differences in concepts and methods were noted,

some of which tended to reduce the validity of inter-country comparisons of fluctuations in the national series. Statistical series of national income in constant prices for recent years are available for the following countries: Burma, Canada, Cuba, Czechoslovakia, Denmark, Finland, France, Greece, Netherlands, Norway, Peru, Poland, Portugal, Sweden, Switzerland, Turkey, Union of South Africa, United Kingdom, United States and Union of Soviet Socialist Republics.

3. The Secretariat has undertaken a preliminary analysis of the conceptual and statistical problems encountered in the compilation of estimates of national income and expenditure in constant prices. The following problems have been studied: (a) basis of valuation of major aggregates, particularly valuation at market prices or at factor cost; (b) choice of gross or net totals, and treatment of capital consumption allowances; (c) "national" versus "domestic" product and income concepts, and deflation of net investment income and other net factor income received from abroad; (d) treatment of national product and expenditure for countries with an open economy; (e) adjustments for changes in wants due to changes in external conditions; (f) changes in conditions under which production takes place; (g) effect of changes in the distribution of incomes; (h) choice of appropriate quantity units; (i) changes in quality, including changes due to technological progress, shortages and import restrictions, and changes in customs and habits; (j) services attached to the purchase of commodities; (k) treatment of government services and other services; (l) other problems such as appearance of new commodities, regional price differentials, and seasonal fluctuations.

4. Many of the problems encountered in the construction of index numbers of prices and quantities in national income analysis and national accounting are common to the construction of price and quantity indexes in general. The problems in national accounting are often more complicated because the index numbers must cover very wide groups of transactions, including services, and correspond as closely as possible to the economic concepts on which national income analysis is built. The Secretariat feels that ultimate recommendations, particularly with respect to the problem of expressing national product in constant prices, require to be related to the proposals respecting wholesale

price indexes which are to be discussed at the seventh session of the Statistical Commission.

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5. The Statistical Commission may wish to recommend:
 - (a) that the Secretariat continue to study methods of measuring estimates of national product and expenditure in constant prices and include in its study a description of methods used by various governments in compiling these estimates;
 - (b) that the Secretariat consult with countries, and experts if necessary, on methods of compiling price and quantity index numbers for a system of national accounts and the formulation of proposals for international standards in this field;
 - (c) that the Secretariat submit a progress report on this subject at the next session of the Statistical Commission, including a summary of comments received.
