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THE PROJECTIONS WORK OF THE ECONOMIC PROJECTIONS AND
PROGRAMMING CENTRE

(Report by the Secretary-General)

Methodological studies

1. The first volume on the methodology for long-term economic projections by the Economic Projections and Programming Centre (EPPC) is published under the title Studies in the Long-term Economic Projections for the World Economy: Aggregative Models. This is a revised version of a report originally presented to the meeting of a group of experts held in June 1962. Its purpose is to develop a framework for projections of world production and trade which would serve as a basis for estimating the external environment within which the developing countries may plan the acceleration of their internal economic development. In this publication, the countries in the world economies are grouped into the developed market economies, the centrally planned economies and the developing market economies, and an econometric model showing the principal economic interrelationships among these groups of countries is then constructed. As a first approximation, it is assumed that the rates of growth in the developed market economies are determined essentially on the basis of internal economic factors. These same considerations are also relevant in the centrally planned economies, although they are discussed in the context of plan targets. The rates of growth in the developing market economies are treated as a function not only of such internal variables but also of internal variables relating to their foreign trade and the inflow of official donations and long-term capital. With these assumptions, equations relating production, consumption, investment, savings

and foreign trade to their respective determinants have been formulated for each of these groups of countries and actual values have been assigned to these parameters by using data for the nineteen fifties. The aggregate model thus derived has been used to illustrate the policy implications of alternative rates of growth of the world economy projected for 1970 and 1975.

2. The Centre has initiated studies at the country and sectoral levels and is, at present, engaged in preliminary testing of alternative models at the country level.

Actual projections

3. In response to the request of the United Nations Conference on Trade and Development, the Centre prepared projections of the trade needs of developing countries in 1970, assuming an acceleration in their economic growth. These projections have been made by employing the basic aggregative model described in para. 1. The hypothetical value of combined gross domestic product of the developing countries in 1970 has been assumed to be the United Nations Development Decade target which calls for achieving "in each under-developed country a substantial increase in the rate of growth, with each country setting its own target, taking as the objective a minimum annual rate of growth of aggregate national income of 5 per cent at the end of the Decade (General Assembly resolution 1710 (XVI), operative para. 1). Estimates of the trade gap of the developing countries as a group and for major regions were then calculated on the assumption that the structural relationships which had existed in the nineteen fifties would remain unchanged in the nineteen sixties. The details of these projections have been reprinted in World Economic Survey, 1963.

4. In addition, a special study of the trends in import demand of the developed market economies for twenty-four major primary commodities in world trade and of projections to 1970 has been initiated. Here import demand for each commodity is, in the main, related to the aggregate gross domestic product of the developed market economies. An earlier study, narrower in scope, entitled "Prospective Demand for Non-agricultural Commodities: Problems of Definitions and Projection

Methodology" was submitted to the thirty-fourth session of the Economic and Social Council.^{1/}

Some problems encountered in use of published data

5. Apart from the general problems of the lack of international comparability and of the paucity of data for most developing countries, some of the specific difficulties encountered in using the published data for projection purposes were as follows:

(a) Deflation of gross domestic product: In many countries, gross domestic product by expenditure components is given only in current prices. It has been found by experience that such price indices as cost-of-living and wholesale prices, which are generally available in these countries, are not representative enough to be used as deflators. Under such circumstances, it has often been necessary to compile crude estimates of "appropriate" price deflators, but this procedure is obviously costly and the results are not always satisfactory. Furthermore, the deflation for gross domestic product by industrial origin is an even more difficult problem.

1/ The sources of data used in the above-mentioned works are as follows:

(a) for gross domestic product and its major components: United Nations, Yearbook of National Accounts Statistics; and national publications;

(b) for production indices: United Nations, Statistical Yearbook and The Growth of World Industry, 1938-1961; Food and Agriculture Organization of the United Nations, Production Yearbook; and national publications;

(c) for population: estimates by the Population Branch of the Bureau of Social Affairs of the United Nations;

(d) for foreign trade: various publications of the Statistical Office of the United Nations. A summary of the basic series used is presented in "Review of Trends in World Trade, Part II: Handbook of International Trade Statistics" (document E/CONF.46/12/Add.1);

(e) for trade in primary products: United Nations, Commodity Survey; and national publications;

(f) for international capital flows: International Monetary Fund, Balance of Payments Yearbook; and United Nations, International Flow of Long-term Capital and Official Donations.

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(b) Breakdowns of gross domestic product: It is often the case with the developing countries that breakdowns of gross domestic product are not available in terms of both expenditure components and industrial origin. This fact greatly hampers the projections work which needs to be expanded to take into account both expenditure patterns and the industrial structure of the world economy.

(c) Conversion of gross domestic product into a common currency unit: The practice of converting national economic series into a common currency unit by using official exchange rates has often led to biased results. The bias is especially obvious in the cases of multiple exchange rates countries. It would be extremely helpful if a comprehensive study to establish more appropriate conversion factors on the basis of the purchasing power parity of national currencies could be attempted.

(d) Valuation of transactions of the external sector: The concepts and methods of valuation of the transactions of the external sector as employed by the United Nations in national accounts statistics and by the IMF in balance-of-payments statements are not consistent. For example, estimates of apparent foreign savings on the basis of data from these two sources have often shown great discrepancies.

(e) Deflation of trade statistics: Price deflators for total world trade, trade by regions and trade in major commodities are generally compiled by averaging, with a given weighting system, the price deflators published by individual countries. However, this procedure suffers from the fact that these deflators themselves have not necessarily been compiled on the basis of comparable concepts and methods.

Seminars

6. A meeting of experts on the use of aggregative models for long-term economic projections was held in June 1962. As a sequel, and as part of its work programme, the Centre is now planning to hold a series of inter-regional seminars on economic projections. The first seminar in this series will be held in Copenhagen, Denmark, in August 1966. Its subject will be "Long-term Economic Projections for the World Economy: Sectoral Aspects". Participants in the seminar will be twenty-five to thirty senior economists or other civil service officials, drawn mainly from

planning agencies or governmental departments concerned with projections work in the developing countries. A number of consultants to the United Nations Secretariat who will prepare papers on various aspects of the subject will also attend the seminar. It is hoped that the seminar will provide an opportunity to evaluate the techniques employed for long-term sectoral projections by various organizations and institutions and to review the empirical results on sectoral levels so far achieved.

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THE PROJECTIONS WORK OF THE REGIONAL ECONOMIC PROJECTIONS AND
PROGRAMMING CENTRES

(Report by the Secretary-General)

1. In accordance with General Assembly resolution 1708 (XVI), regional economic projections and programming centres have been established in the secretariats of the Economic Commission for Africa (ECA), the Economic Commission for Asia and the Far East (ECAFE) and the Economic Commission for Europe (ECE); a regional centre for projections has been established in the secretariat of the Economic Commission for Latin America (ECLA). Recent activities of the regional centres are described below.

Regional Economic Projections and Programming Centre, Economic Commission for Africa

2. For the report of the UN/ECA/FAO Economic Survey Mission on the Economic Development of Zambia, a series of projections was made. The work included the preparation of a modified input-output matrix for Zambia.
3. A paper on projections of fertilizer consumption has been prepared for submission to the inter-ministerial meeting on economic co-operation in East Africa, which will be held in September 1965. Projections for this purpose have been made on an individual country basis for 1970 and 1980.
4. For West Africa, projections relating to 1975 have been completed for all sectors. Projections have also been made for per capita imports, in comparison with per capita income, in 1970 and 1975 for nearly 80 items in about 30 countries in Africa. In addition, projections relating to 1975 have been made for foreign aid, population and national income for the whole region.

5. The work now in progress includes projections pertaining to 1975 for investment, saving, exports, imports, import-substitution for about 60 industries, employment and foreign transfers.

Regional Economic Projections and Programming Centre, Economic Commission for Asia and the Far East

6. A methodological study entitled Problems of Long-Term Economic Projections has been published. This report was prepared by the Third Group of Experts on Programming Techniques appointed by the Commission. The report indicated the need to distinguish between policy targets, constraints given by policy considerations or structural relationships, and instruments in setting up an aggregate framework for long-term projections. It also presented a simple model to demonstrate the importance of consistent relationships between the basic magnitudes. Furthermore, the report examined a number of strategic components of economic growth, such as human resources, expenditure and output patterns, investment requirements and the foreign balance.

7. A report on "Projections of Foreign Trade of the ECAFE Region up to 1980" was submitted to the ECAFE Working Party on Economic Development and Planning at its eighth session in September 1963. An attempt was made in this report to project exports and imports of the ECAFE region and to study the various means for meeting the gap in balance of payments.

8. The Fourth Group of Experts on Programming Techniques reviewed the long-term economic projections available for the ECAFE region. Their report entitled "Review of Long-Term Economic Projections for Selected Countries in the ECAFE Region" was submitted to the Second Conference of Asian Economic Planners, held in October 1964.

9. The work currently in progress includes (a) energy projections to be submitted to the ECAFE Working Party on Economic Development and Planning at its ninth session, and (b) projections by sectors and by commodities, both national and regional, to be presented to the Fifth Group of Experts on Programming Techniques.

Regional Economic Projections and Programming Centre, Economic Commission
for Europe

10. Preparatory work is in progress for the 1966 meeting of Senior Economic Advisers to ECE Governments. Subject to approval by ECE at its forthcoming session, it will deal with the construction and practical application of macro-economic models for purposes of economic planning (programming) and policy-making. It is intended to concentrate the discussion on the characteristics of models actually applied and on the problems encountered in the use of models. An exchange of experience on this subject between experts from countries with centrally planned and market economies should be particularly useful.

Regional Economic Projections Centre, Economic Commission for Latin America

11. Work has proceeded on technical and practical studies relating to economic projections for Latin America. Long-term economic projection techniques applicable to conditions in Latin America have been studied and a critical review has been made of the methods used or advised by other national and international agencies and, in particular, of the model proposed by ECAFE experts. A systematic compilation of national accounts data over the past ten years has been started in order to provide the basis for specific projections.

12. A technical study of the preparation of optimum sectoral and over-all programmes has been made.

13. Work is now in progress on projecting import requirements and on constructing a general model for long-term projections. It is also hoped to start preparing over-all projections for each Latin American country.
