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(a) Review of the System of National Accounts (SNA)

REVIEW OF THE IMPLEMENTATION OF THE REVISED SYSTEM OF NATIONAL ACCOUNTS

Report of the Secretary-General

SUMMARY

At its nineteenth session the Statistical Commission requested a review of countries' experiences in implementing the revised System of National Accounts (SNA). The review, summarized here, was based on an analysis of country responses to the United Nations national accounts questionnaire and information available in national and international publications, as well as correspondence, seminar discussions and technical assistance experts' reports. After a brief introduction, section I (para. 6) suggests action the Commission may wish to take. Section II (paras. 7-25) describes the characteristics of the revised SNA, in order to give the review a concrete setting. Section III (paras. 26-31) discusses the findings of the review and section IV (paras. 32-97) contains a summary of proposals for future work. These include the preparation of new explanatory materials, the exploration of possible extensions of the system in several directions and improvement of the national accounts questionnaire to make it more useful for analysis. What is most important is that the review process should be a continuing one, with provision for regular consultation with users in the regions and a mechanism for proposing needed clarification, updating and extension.

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## INTRODUCTION

1. The Statistical Commission approved the publication of the revised System of National Accounts (SNA) at its fifteenth session in 1968, stating that "the work on the revision of the SNA has reached the stage where a suitable comprehensive document on the system can be prepared and issued for the use of countries in the international reporting of national accounting data ... The extended and revised SNA that has been worked out furnishes valuable guidelines for purposes of developing systems of statistics nationally ... and for the reporting of national accounting data internationally." <sup>1/</sup> At that time, the Commission requested the Secretary-General "to keep under review and to report to the Commission from time to time the progress made by countries in applying the new system, together with a any conceptual or practical difficulties encountered." (resolution 1 (XV) para. 9).

2. A decade has now elapsed, and a substantial amount of experience has accumulated in the use of SNA both as a basis for the development of national statistics and for international reporting. Accordingly, the Commission at its nineteenth session asked the Statistical Office to review this accumulated country experience. <sup>2/</sup> The review process had in fact begun somewhat earlier, with the Interregional Seminar on the Revised System of National Accounts. <sup>3/</sup> The present report presents the initial results of the review. A preliminary draft of the report was considered by the Working Party on National Accounts and Balances of the Conference of European Statisticians in February 1978. The report of the Working Party (CES/WP.22/55) will be available to Commission members as a background document.

3. The review had two principal parts. On the one hand, country and other international practices were examined, in order to determine where the recommendations of SNA have been found useful and where they have been departed from, where countries' priorities lie, where they find a need for additional elements not specified in SNA, and where policy requirements have changed in 10 years. On the other hand, since actual practices show only one side of the coin, attention was also given to comments and questions that have been raised about SNA: where extension is wanted; where updating is needed; where clarification would help. An attempt has been made to look at both producers' and users' points of view. It has not been possible, with the resources available, to conduct an in-depth study but major aspects have been surveyed.

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<sup>1/</sup> Official Records of the Economic and Social Council, Forty-fourth Session, Supplement No. 10 (E/4471), para. 14.

<sup>2/</sup> Ibid., Sixty-second Session, Supplement No. 2 (E/5910), para. 29 (d).

<sup>3/</sup> See Report of the Interregional Seminar on the Revised System of National Accounts, held at Caracas, Venezuela, 8 to 19 December 1975 (DP/UN/INT-72-104).

4. A relatively consistent picture has emerged from this review. There is, of course, wide variation in country practices. But there does appear to be a rather general consensus on priorities and on the kinds of national accounting information that are most useful for national purposes. The areas in which there are problems are widely recognized, as are the areas in which there is a need for complementing and updating the system.

5. This report is organized as follows. Section I contains proposed action by the Commission. Section II, after introductory paragraphs that are intended to set the revised SNA into context in terms of its relation to both earlier and later work, discusses the characteristics of the revised SNA, in order to establish a concrete basis for the review. Section III presents the results of the review and section IV presents a proposed programme for future work.

## I. ACTION BY THE COMMISSION

6. The Commission may wish to consider the work programme proposed in Section IV, below, in the light of the findings of the review of countries' experiences in implementing the revised System of National Accounts. In particular, the Commission may wish:

(a) To indicate desirable additions to or deletions from the work programme;  
and

(b) To recommend the priorities to be assigned to the various tasks.

## II. THE CHARACTERISTICS OF THE REVISED SYSTEM OF NATIONAL ACCOUNTS

### A. The origins of the System of National Accounts (SNA)

7. Although estimates of national income or national wealth have a long history, <sup>4/</sup> early work was usually confined to the calculation of a single aggregate. The focus of attention was abruptly changed, however, by the great depression of the 1930s. At about the same time in a number of countries, policy-makers' concern over the clear malfunctioning of the economy and economic theorists' attempts to explain what was happening led statisticians to try to extend the national income into a tool that would be more applicable to the problem at hand. Estimators of national income had long realized that there were alternative ways to derive the aggregate. One could add up what was produced by each industry or one could add up what was received by all of the people; in principle the two totals should be the same. With the emergence of theories emphasizing underconsumption, over-saving and equilibrium at less than full employment, the third possible breakdown, that by end use, came to be emphasized. Though much more difficult to estimate with the data then commonly available, the new tool for policy analysis had a sufficiently obvious usefulness so that rapid strides were made in the development of estimating techniques. By the end of the 1930s, the fundamental elements of a rudimentary national accounting system were in place in half a dozen countries. Theorists were beginning to develop symbolic representations in matrix form to display the basic interrelationships among the principal actors in the economic system. The importance of this early work was later recognized by the awarding of four of the first few Nobel prizes in economics to some of its main contributors: Ragnar Frisch, Jan Tinbergen, Simon Kuznets and Wassily Leontief.

8. In the United Kingdom, Canada and the United States, further great strides in both the theoretical apparatus and the empirical implementation of what was still

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<sup>4/</sup> For a complete survey, see Paul Studenski, The Income of Nations (New York, New York University Press, 1961), 2 vols.

generally called national income statistics 5/ were made during World War II, when Governments were suddenly called upon to expand by orders of magnitude their roles in the management of their economies. It was not until the time when the end of the war allowed for a period of consolidation, however, that the presentation of national income statistics was generally formalized into an accounting structure. In the immediate post-war period, such formal accounting structures emerged, inter alia, in the United States, the United Kingdom, Canada, the Scandinavian countries and France. 6/

9. On an international level, the League of Nations Committee of Statistical Experts had been interested in the topic of national income since its initial meetings in 1929. In 1945, a sub-committee on national income statistics was convened under the chairmanship of Richard Stone, who had been largely responsible for the United Kingdom work. The sub-committee included among its members representatives of most of the countries then active in the area. The report of this sub-committee, 7/ and especially Stone's appendix to it, has had enormous influence upon all subsequent international work.

10. During the early post-war period, great impetus was given to the development of national accounts in many countries of Europe by the Organisation for European Economic Co-operation (OEEC). Here again, the motive for the development of national accounts was the clear need of policy makers for information on the relation between the availability of resources and the needs they had to fill. In 1949, OEEC established a National Accounts Research Unit (NARU) at Cambridge University, under Stone's direction, with the purpose of establishing guidelines for the use of OEEC member countries on the structure of the national accounts, methods of compiling them and their analytic uses. NARU also served as a training centre, many statisticians who later became responsible for their own countries' national accounts spending periods of several months to several years working there. Out of the work of NARU as modified by the needs of the policy makers in Paris there emerged the OEEC Simplified System of National Accounts, later expanded and renamed the Standardized System as countries' capabilities of supplying data grew. SSNA was addressed to what was then seen as the most pressing

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5/ Frisch used the term "nasjonalregnskap" as early as 1935.

6/ United States, National Income, supplement to Survey of Current Business (Washington, D.C., Government Printing Office, July 1947); United Kingdom, "National income and expenditure of the United Kingdom, 1938 to 1946", Cmd. 7099, (London, H.M. Stationery Office, 1947); Canada, National Accounts - Income and Expenditure, 1938-47 (Ottawa, November 1948); Denmark, Nationalproduktet og Nationalindkomsten 1930-46 (Copenhagen, Statistiske Departement, 1948); France, Perspectives des ressources et de besoins de l'economie française (Paris, Commission du bilan national, Décembre 1947).

7/ "Measurement of national income and the construction of social accounts; report of the Sub-Committee on National Income Statistics of the League of Nations Committee of Statistical Experts", Studies and Reports on Statistical Methods, No. 7 (United Nations publication, Sales No. 1947.II.6). Appendix by Richard Stone: "Definition and measurement of the national income and related totals".

problem of the OEEC member countries: how to meet the acute need for increased investment to rebuild productive capacity while at the same time satisfying at least the minimum consumption requirements of the population, in a way that would best avoid inflationary pressures. In its initial versions, it contained five accounts for production, private consumption, public consumption, saving and investment, and external trade. Later versions introduced some increased complexity (in distinguishing income generation from redistribution, for example) and provided a place for substantially increased amounts of data in the form of industry breakdowns and other disaggregations.

11. When the United Nations convened its first expert group on national accounts, it drew heavily upon both the people and the ideas of OEEC's SSNA, the group being chaired by Stone. It is not surprising, therefore, that the basic structure of the first United Nations system of national accounts published in 1952 <sup>8/</sup> greatly resembled that of SSNA. Some additional features were included, however. Tentative steps were taken in the direction of expanding the information on financial flows underlying the process of saving and investment. Provision of this kind of information had been recommended in the League report. The capital reconciliation accounts suggested for SNA were, however, highly summary and rudimentary. Input-output relationships were omitted altogether, although independent work on input-output was well advanced in several countries and OEEC had developed an experimental form integrating input-output with the sectoral income and production accounts. <sup>9/</sup>

12. During the interval between the development of the first version of SNA in 1952 and the beginning of work on its major revision in about 1963, there were a number of developments that influenced the direction the future work was to take. On the one hand, in the industrialized countries there had been a great deal of work both by Governments and by private researchers on the expansion of the national accounts into such areas as input-output, flow-of-funds and national wealth and over this period the advantages of integration of all of these forms into a single framework came to be recognized among practitioners of national accounting. Among users, the rapid growth in the complexity and variety of econometric modelling led to a demand for comparably sophisticated data and policy analysts were also appreciative of the usefulness of integration. On the other hand, the new concern with the problems of the developing countries raised the question of whether new kinds of data specially tailored to the needs of these countries should be sought. Given the widespread lack of financial independence among the developing countries, it was suggested that these countries primarily needed data relating to production and that the emphasis on income and expenditures in the old SNA was of less relevance to them. A final consideration in the revision was the desire to facilitate comparisons with the System of Balances of the National Economy (MPS) used in countries with centrally planned economies.

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<sup>8/</sup> A System of National Accounts and Supporting Tables (United Nations publication, Sales No. 52/XVII.4).

<sup>9/</sup> Richard Ruggles, National Income Accounting and its Relation to Economic Policy (Paris, Economic Cooperation Administration, 1949).

13. The revised SNA published in 1968 <sup>10/</sup> (hereafter referred to as the "Blue Book") reflected these pressures. The new system was viewed as providing a framework for planning basic economic data collection in an integrated way. As such it was a highly developed, elegant formulation, capable of a rather wide range of adaptation and amenable to the inclusion of almost unlimited amounts of detailed data. It integrated interindustry transactions into its main framework and included information on financial flows in its capital finance accounts. In extensions of the accounts foreshadowed in the 1968 version and later implemented, input-output tables, balance sheets and reconciliation accounts, statistics on tangible capital assets, price and quantity statistics and income distribution statistics were added. Throughout the system, detailed classifications were provided. The expert group charged with the revision of SNA (again chaired by Stone) considered that it represented a breakthrough of great importance, capable of serving all of the purposes that existing international and national systems served and much more besides. Its emphasis on production rather than income and outlay was regarded by the group as in keeping with newly emerging major policy needs and its use of a different sectoring system for the production accounts and the income accounts was considered to simplify greatly the task of collecting data while reflecting the actual situation more accurately, without sacrificing analytic utility.

#### B. The structure of SNA

14. One consequence of the degree of elaboration, complexity and flexibility of the revised SNA is that the term "SNA" is not always used with the same scope and coverage. To establish a concrete basis for the discussion of implementation that follows, this subsection will briefly review the content of the Blue Book and the publications deriving from it. The Blue Book presents the system qua system in two alternative ways, in chapter II in matrix form and in chapter VIII in accounting form. In addition to the formal presentation of the system, the Blue Book contains flow definitions and classifications in chapters V-VII and supporting tables in chapter VIII. Chapter IX contains an adaptation for developing countries. Account also needs to be taken in this review of the questionnaire which is the basis for international reporting and of the supplementary publications on balance-sheets, income distribution, price and quantity statistics and tangible capital asset statistics issued since the Blue Book was published.

##### 1. The matrix approach

15. The discussion in chapter II of the Blue Book gives the fundamental theoretical basis for the revised SNA; it is clear that to the Book's authors and the expert group it is this chapter that describes the essence of "the SNA". What emerges is an extended matrix - not the summary versions actually shown in the printed book

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<sup>10/</sup> A System of National Accounts (United Nations publication, Sales No. E.69.XVII.3).



but a form containing many more columns and rows. This extended form is of course a theoretical construct, never intended for statistical implementation. Countries were expected to choose from this wealth of possibilities the subset of the information they deemed useful and feasible for their own purposes. The possibilities offered by the idealized matrix are indeed immense. The approach taken to the construction of the matrix, furthermore, in principle permits its extension in any direction a particular user may consider desirable. The actual content of the matrix in terms of rows and columns specified is therefore not the essential feature. What is important are two new principles not characteristic of earlier conceptions. The first is that an "account" - a row and column - may be introduced on many different bases. Where earlier systems of accounts demanded consistency in the definitions of sectors and reporting units on the basis of institutional character, functional purpose, kind of activity or some other single principle, the view presented here is that all of these (and possibly others) are useful and that all can be accommodated within a single framework. Thus the matrix contains accounts for institutional sectors such as households, accounts for industrial sectors such as manufacturing and accounts for functional activities such as consumption. But it is not proposed that the relations among all of these accounts should be completely spelled out. It is here that the second new principle enters. A number of dummy rows and columns, or transformation accounts, are introduced to avoid the necessity for showing certain cross-classifications: they gather up the data distributed according to one principle of classification and redistribute them according to another principle of classification, in effect showing only the marginals of the cross-classification. Thus, for instance, the income originating in various kind-of-activity sectors is gathered up into a total which is then distributed to various institutional sectors of receipt, without a cross-classification. This, clearly, greatly reduces data requirements. The user, of course, does not have to employ this device; where cross-classifications are wanted, they can be introduced.

16. It is apparent that, thus conceived, the system is indeed one of great generality adaptable to almost any form a compiler may require. Perhaps unavoidably, this very generality has led to some confusion. Chapter II, in effect, requires the compilers to do more than adapt - they must really design their own system. It is for this reason that those looking for more definite recommendations have tended to concentrate on other parts of the Blue Book. It was the intention of the authors that this should be so.

## 2. Flow definitions and classifications

17. Partly because the matrix is so general, many producers of data consider that the definitions and classifications presented in chapters V-VII of the Blue Book are the heart of SNA. The definitions and classifications have been much used by countries newly embarking upon national accounts and for such countries they have proved to be very valuable. They are concrete and specific and they leave relatively little for the compiler to decide. Indeed, where they are unclear or open to varying interpretations, there is an insistent demand for better specification. To practitioners making this demand, the arrangement of the flows in matrices, accounts or tables is of less importance than the definitions and classifications of the flows. To some extent, the arrangement of the flows

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*changed by editor  
from "taking this view"*

is seen as a matter of convenience - something that can be altered as desired. This is, however, only partly correct. The flow definitions are not and cannot be independent of the sectoring and accounting structure within which they have been conceived. The flow definitions and the classifications presented in chapters V-VII are for the most part in fact keyed to the standard accounts presented later in chapter VIII rather than to the matrix of chapter II and a different set of standard accounts would have led to different flows, with different definitions.

### 3. The standard accounts

18. Chapter VIII of the Blue Book contains an accounting form of presentation. The accounts are divided into three classes and within each class there are several types of accounts. Class I accounts are the consolidated accounts for the nation as a whole. Class II accounts, called "production, consumption expenditure and capital formation accounts", are deconsolidated by kind-of-activity sectors. Class III accounts, called "income and outlay and capital finance accounts", are deconsolidated by institutional sector. Six different types of accounts are distinguished. Account 1 is the production account, account 2 relates to consumption expenditure, account 3 to income and outlay, account 4 to capital formation, account 5 to capital finance and account 6 to external transactions. These types of accounts are fitted into the various classes as appropriate. Class I includes accounts 1, 3, 5 and 6 for the nation as a whole. Class III includes accounts 3 and 5 for five specified institutional sectors and a number of recommended subsectors. Class II includes accounts for both goods and services and activities. For goods and services, accounts 1, 2 and 4 are combined into one, but five subaccounts are shown and a number more are recommended for different kinds of goods and services. For kinds of producers, only account 1 is shown. Industries and other producers are divided into four kinds of sector within which accounts are recommended for nine kinds of activity.

19. The accounts shown are described in the Blue Book as a selection of the material contained in the idealized matrix. They are not intended to show the system in its entirety but only what were considered to be the more important parts of it, suitable as a more or less immediate goal for implementation. It was expected that the accounts as shown would have a shorter life than the theoretical system itself and that as experience accumulated and needs changed a different selection might become more appropriate. The selection from the idealized matrix presented in the standard accounts in annex 8.2 of the Blue Book differs somewhat from the selection contained in the illustrative matrix of chapter II, table 2.1. In some respects, the standard accounts are more consolidated than the illustrative matrix and in others they are less consolidated. Also, some parts of the information shown in the illustrative matrix are omitted from the accounts. The standard accounts in chapter VIII are not presented as recommendations for countries to adopt in the form shown but rather simply as examples. However, the standard accounts do play a very important role: it is largely the accounts that determine the flow definitions and when the data are compiled in accordance with these flow definitions the accounting structure is implicit in them. They are, in effect, the visible manifestation of the theoretical system.

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4. The supporting and supplementary tables

20. In addition to the standard accounts, chapter VIII presents a set of 26 supporting and supplementary tables. They are intended to furnish guidance on actual data series which countries may find it useful to compile. The tables are related to the standard accounts in several different ways. Some repeat, sometimes in a different arrangement, information called for in the accounts. Some present more detailed breakdowns in particular areas. Some provide for additional cross-classifications or alternative breakdowns. Five of the tables call for constant-price data. The coverage of the tables is not exhaustive; they do not include all of the information required to complete the accounting structure. Thus, countries basing their data compilation efforts upon the table forms will not obtain a complete set of national accounts; rather they will have selected national income statistics. This approach, while simpler in some respects, does lose one of the major advantages of the accounting approach, namely the automatic consistency requirements imposed by a balancing double-entry accounting system.

5. The adaptation for developing countries

21. Chapter IX presents three new kinds of accounts not included in the main system: accounts for regions (or for urban and rural areas), accounts for key sectors and accounts for the public sector. Overlaid upon these kinds of accounts, two new schemes of classification are also proposed, into modern and traditional modes of production and into public and privately owned or controlled establishments. The format of these accounts is somewhat compressed relative to that of the main system, either through consolidation or through omission of certain flows. The structure of the accounts is altered in certain respects, primarily the treatment of trade and transport margins and the treatment of imports. Chapter IX also includes two additional supplementary tables, one of them a table on the supply and disposition of commodities offered as a substitute for the input-output tables called for in chapter VIII. The proposals in chapter IX are not offered as substitutes for the kinds of information called for in the main structure but rather as supplements - they are suggested as additional kinds of information that developing countries may find useful.

6. The questionnaire

22. From the very beginning of work on the revision of SMA, the development of a new questionnaire based upon the revised system to be used for the international reporting of national accounting information was seen as a very important part of the whole endeavour. The Statistical Commission attached great importance to the design of the questionnaire, emphasizing that while simplification and selection were necessary it was also important to retain the skeleton of the accounting framework.

23. In actual practice, the questionnaire was not based on either the matrix or the accounts but rather was drawn mainly from the supporting tables, somewhat simplified and consolidated. In addition, however, it includes three summary

tables that are related in a general way to the Class I accounts and one table drawn from the adaptation for developing countries (the supply and disposition of commodities). Like the tables from which it is drawn, the questionnaire is neither complete nor systematic; rather it is intended to display the most readily available and important series.

#### 7. The supplementary publications

24. The initial programme laid out in the Blue Book envisaged a number of supplementary publications to fill out parts of the system not covered in full there. To date, four of these have been published; namely, Input-Output Tables and Analysis; Guidelines on Principles of a System of Price and Quantity Statistics; Provisional International Guidelines on the National and Sectoral Balance-Sheet and Reconciliation Accounts of the System of National Accounts; and Provisional Guidelines on Statistics of the Distribution of Income, Consumption and Accumulation of Households. 11/ Five more are in preparation, namely, guidelines on statistics of tangible capital assets (a draft is before the Commission as E/CN.3/508), a manual on sources and methods for accounts in current prices, a manual on national accounts in constant prices, a manual on public sector statistics (a progress report is before the Commission as E/CN.3/509) and a manual on flow of funds. Although all of these supplements were intended to fit the system as laid out in the Blue Book, they do nevertheless show some variation. The variations arise from two sources. On the one hand, each of the special topics imposes some constraints of its own and these are not always directly and fully compatible with the matrix structure and/or the classifications and flow definitions of the Blue Book. Variations arising from this cause can be and largely have been identified and accounted for, of course, but they do lead to slightly differing treatments. A second source of variation in these supplementary publications arises simply from the fact that they are later: they take account of some changes in point of view and some new requirements. Again, the variations are not large - but they can be confusing.

25. These differing treatments in the various elements of SNA are (for the most part) reconcilable. But the reconciliation is not always simple and straightforward and it is often not explicitly made. A first step towards the clarification and simplification of SNA, therefore, would seem to be the integration of all of these aspects of the system into one coherent fabric. Such an integration would be especially beneficial for statisticians in countries newly embarking on the compilation of national accounts.

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11/ United Nations publications, Nos. E.73.XVII.11, E.77.XVII.9, E.77.XVII.10 and E.77.XVII.11, respectively.

### III. THE IMPLEMENTATION OF THE REVISED SNA

26. A first requisite of a review of the implementation of SNA by countries is a decision on what "implementation of SNA" means. The view taken in the present study is essentially a pragmatic one, reflecting the kinds of information at the disposal of the United Nations Statistical Office. It is an intermediate position, more or less in the middle of the possible extremes. On the one hand, it was considered that something more than conformity with the definitions of the main aggregates such as gross domestic product was required, since the main aggregates by themselves hardly constitute a system of national accounts. On the other hand, it was considered that the idealized matrix was too general to furnish a concrete basis for measuring implementation. The study therefore concentrates upon chapters V-VIII of the Blue Book, together with the questionnaire. Implementation of SNA will be discussed in terms of conformity to (a) the flow definitions and classifications of chapters V-VII, (b) the essential characteristics of the accounts and tables of chapter VIII and (c) the questionnaire. These criteria are often interlocking, since use of a significantly different accounting structure would probably result in different flow definitions. But it is of course possible to use the table forms either of chapter VIII or the questionnaire without conforming in detail to the flow definitions.

#### A. The limits of statistical examination

27. In conducting a review of countries' experiences with the revised SNA, two sources of statistical evidence are available for examination. The first is country responses to the national accounts questionnaire and the second is national and international publications. Beyond this, one must rely on comments - what national statisticians say, not what they do.

28. The limitations of a statistical investigation are obvious. The questionnaire responses, of course, tell nothing about the reasons for failure to supply what is not supplied, although it must be presumed that the most usual reason is lack of the requisite basic data. But this is not always the case. Sometimes, information is not supplied because it is not available in exactly the form requested, while other countries in similar circumstances will make the necessary adjustments or will supply the data with foot-notes explaining differences. In some cases, countries have information not asked for. The entire questionnaire is not sent to all countries, but only a selection of tables covering slightly more information than the particular country has supplied in the past. Even national publications may not reflect all of the work that is going on in a country, since they show only what has been completed, not what is in progress.

29. Nevertheless, it is considered that the criteria outlined above constitute an appropriate basis for the review. From the very initial stages, establishment of a foundation for international reporting was regarded as one of the important purposes of developing the revised SNA; the questionnaire responses are the best available evidence of the extent to which that purpose has been met. Furthermore, the questionnaire responses are important evidence of the use of SNA for national

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purposes. The questionnaire tables are a relatively simplified and consolidated set, which it should be possible for any country that has implemented SNA in terms of chapters V-VIII of the Blue Book to fill out. In cases where countries use definitions, classifications and table forms that are so different from those proposed in chapters V-VIII that they cannot supply the data requested in the questionnaire, it is debatable whether what they have implemented can be considered to be the revised SNA.

30. Considering in addition to the questionnaire national and international publications other than those of the United Nations makes it possible to examine what countries use for their own purposes rather than what they report to the Statistical Office. The main purpose of this part of the review is to consider what kinds of adaptations countries have found it useful to make and what kinds of information they have that the questionnaire does not ask for. Although this part of the study is as yet far from complete, a sample of national and international publications has been surveyed.

31. In order to address the kinds of questions that cannot be answered through examination of the data actually compiled - problems, difficulties, questions; gaps in the coverage of the system; areas in which the system needs updating - this section will also cover some of the non-statistical material.

#### B. Survey of questionnaire responses

32. The survey of questionnaire responses was based upon replies received from 110 countries covering the years 1970-1974. Of these 110 countries, 26 are classed as developed countries and 84 as developing countries. 12/

33. The questionnaire consists of 17 tables, some of which have a number of subparts. Tables 1-3 are summary tables for the economy as a whole based upon the Class I accounts. Tables 4-6 give various breakdowns of production by kind-of-activity categories. Tables 7-9 give detailed breakdowns of final expenditures. Tables 10-16 relate to income and outlay, tables 10 and 11 in summary form and tables 12-16 for detailed institutional sectors. The final table, table 17, relates to external transactions.

##### 1. Tables supplied by countries

34. As a first approach, an examination of which tables countries supply is in itself illuminating. Table 1 in the present document summarizes this information, separately for developed and developing countries. This table shows the percentage of countries providing any information at all for any year for the table in question. Even with as loose a criterion as this, the table shows something of interest. Virtually all countries make some attempt to supply the three major summary

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12/ The classification is that which appears in the United Nations Standard Country Code (United Nations publication, Sales No. E.70.XVII.13).

Table 1. Country responses to the United Nations national accounts questionnaire

Questionnaire table numbers	Percentage of countries supplying table	
	Developed (total 26)	Developing (total 84)
<u>Accounts for the nation as a whole</u>		
1. GDP by end use and cost structure	100	96
2. Income and outlay, consolidated	100	81
3. Capital finance, consolidated	92	61
<u>Kind of activity breakdowns</u>		
4. GDP by kind of activity	88	99
5. Domestic factor incomes by kind of activity	36	26
6. Supply and disposition of commodities	15	5
<u>Detailed breakdowns of final expenditures</u>		
7. Government final consumption	69	38
8. Private final consumption	88	29
9. Gross capital formation	96	81
<u>Income and outlay and capital finance</u>		
10. Income and outlay, summary, all sectors	73	17
11. Capital finance, summary, all sectors	73	14
12. Corporate and quasi-corporate enterprises, detail	27	11
13. Financial institutions, financial transactions	27	6
14. General government, detailed subsectors	92	48
15. General government, purpose	27	11
16. Households	65	15
<u>External transactions</u>		
17. External transactions	92	57

breakdowns of GDP, by end use, by cost structure and by kind of activity. All countries, without exception, supplied at least one of these breakdowns and all but one or two supplied two. For developing countries, however, the information supplied falls off very rapidly once one passes beyond these three tables. There is considerable interest in gross capital formation and in external transactions. Not quite half supply some information on general government. For the remaining tables, the fractions range from about a quarter downwards. Of special interest is the small number of developing countries (4) attempting table 6, the supply and disposition of commodities, since this table is identical with the one specially recommended in chapter IX of the Blue Book for the use of the developing countries. For the developed countries, the percentages are of course higher, most of the countries being able to supply some information on both production and income and outlay. With these countries what is perhaps most interesting is to notice the tables not supplied. Once again, only four countries attempted the table on the supply and disposition of commodities, even for one year. Apart from this, it is mostly the tables calling for the most detailed breakdowns that are missing.

35. There is a remarkable similarity among countries in the priorities which they attach to the different kinds of information, as evidenced by the order in which the tables are supplied. It is also clear that the ordering of priorities of developing countries does not differ greatly from that of developed countries.

36. The complete national accounts questionnaire consists of 95 pages. Most of the 17 main tables have many parts. Not all countries are asked to fill out the complete questionnaire, however. A system has been developed for selecting the table forms to be sent to a specific country which takes into account both the information supplied by that country in prior years and the relative frequencies with which all countries complete the tables. The package sent to any given country includes those tables completed in prior years, plus the next few tables in the frequency list. Thus, a country with an unusual constellation of data may not be asked for some kinds of information it could supply. This method of distribution does, to some extent, enforce the triangularity of the result, in so far as countries are only asked for tables lower on the frequency list if they have already furnished the tables higher on the list. But the application of this rule is not intended to be rigid and where information is known to exist it is asked for. In this connexion, country publications and other available sources are examined.

37. In the examination of country responses, the 17 tables of the questionnaire were divided up into their constituent components. For the most part, these components are distinguished in the questionnaire and separately coded. In a few cases, however, it was considered that even the smallest numbered table segments contained essentially separate kinds of data susceptible to independent estimation and in these cases further breaks were introduced. This is the case primarily for the sector income and outlay and capital finance accounts, where the questionnaire does not distinguish the three segments identified in the Blue Book (income and outlay, gross accumulation and its finance, and net acquisition of financial assets and liabilities). Table 2 in the present document uses the number and letter



designators employed in the questionnaire. In table 3, the segments which are not numbered in the questionnaire are identified by the addition of small roman numerals (i, ii, iii) to the table numbers of the questionnaire.

38. Table 2 shows, for each of the 84 table segments identified, the total number of countries supplying any data for that table segment for any year, together with the number of developed countries and the number of developing countries. In table 3, the same information has been rearranged in the order of frequency of developing-country response. For convenience, table 3 also groups the information: group 1 includes those tables supplied by half or more of the developing countries; group 2, those supplied by 15-50 per cent of the developing countries and group 3, those supplied by less than 15 per cent of the developing countries. The totals shown in tables 2 and 3 may differ slightly from those shown in table 1 since table 1 counts broader groups. Thus, for instance, a country filling out any of the segments of questionnaire table 4 would be counted as supplying table 4 but the counts on individual segments may be lower since not all countries supply the same segments.

39. As far as major priorities go, the picture that emerges from tables 2 and 3 is consistent with that shown in table 1. The kinds of information that countries most frequently supply include gross domestic product in its three principal breakdowns (by kind of activity, end use and cost structure); income and outlay and capital finance for consolidated institutional sectors; capital formation by type of good; the current account of the balance of payments; and a minimum of constant-price information.

40. The more detailed information on table segments does make it possible to identify more closely the kinds of information that countries do not supply. It is clear that in addition to the tables on the supply and disposition of commodities previously noted, the tables that are missing are some of those dealing with detailed subsector information and the detailed breakdowns of expenditures (especially where cross-tabulations are called for) and all those dealing with changes in assets and liabilities. The majority of countries supply some information on the household sector and the consolidated general government sector, for instance, but the numbers decline rapidly for the subsectors of general government. For the corporate and quasi-corporate non-financial enterprises sector, only 14 countries supply any information even for the consolidated sector and virtually none supplies information on the detailed subsectors. The same is true of financial institutions. It is possible that more countries could supply information on a consolidated enterprise sector, including both non-financial and financial enterprises, but the questionnaire does not ask for this.

41. Comparing the developed with the developing countries, it does appear that the developing countries supply the tables featuring kind-of-activity breakdowns somewhat more frequently than other types. For these tables, the percentages of developing countries approach those of developed countries much more closely than for other tables. Conversely, the final-use breakdowns tend to be relatively more often supplied by the developed countries. (These are, of course, different facets of the same phenomenon.) Apart from this, however, the table does not

Table 2. Country responses to the national accounts questionnaire: detailed information

Questionnaire table numbers	Number of countries responding		
	All countries (110)	Developed countries (25)	Developing countries (85)
1. Expenditure on the gross domestic product:			
a. at current prices:			
A. Expenditure on the gross domestic product in purchasers' values	107	25	82
B. Cost structure of the gross domestic product	104	25	79
b. at constant prices	67	24	43
2. National income and national disposable income	94	25	69
3. Capital transactions of the nation	75	23	52
4. Gross domestic product by kind of activity in producers' values:			
a. at current prices:			
(a) Industries	103	22	81
(b) Producers of government services	96	22	74
(c) Other Producers	68	22	46
Supplement: selected industries	45	14	31
b. at constant prices:			
(a) Industries	67	17	50
(b) Producers of government services	58	17	41
(c) Other producers	35	15	20
Supplement: selected industries	29	12	17
5. Domestic factor incomes according to kind of economic activity:			
(a) Industries:			
02 Compensation of employees	31	10	21
03 Operating surplus	29	8	21
(b) Other producers:			
01 Producers of government services	27	9	18
02-04 Other Producers	21	7	14

Table 2 (continued)

Questionnaire table numbers	Number of countries responding		
	All countries (110)	Developed countries (25)	Developing countries (85)
6. Supply and disposition of commodities:			
a. at current prices	8	4	4
b. at constant prices	0	0	0
7. Government final consumption expenditure according to Purpose in purchasers' values, at current prices	50	18	32
Supplement. Government final consumption expenditure according to cost composition and purpose in purchasers' values at current prices	24	8	16
8. Private final consumption expenditure:			
a. by object, in purchasers' values, at current prices	47	22	25
b. by object, at purchasers' values, at constant prices	37	22	15
c. by type of expenditure, in purchasers' values, at current prices	22	13	9
9. Composition of gross capital formation, in purchasers' values:			
a. at current prices:			
A. By type of capital goods:			
(a) Gross fixed capital formation	91	24	67
(b) Increase in stocks	85	24	61
B. Gross fixed capital formation by kind of economic activity of owner:			
(a) Industries	49	21	28
(b) Producers of government services	43	20	23
(c) Producers of private non-profit services to households	18	13	5

Table 2 (continued)

Questionnaire table numbers	Number of countries responding		
	All countries (110)	Developed countries (25)	Developing countries (85)
b. at constant prices:			
A. By type of capital goods:			
(a) Gross fixed capital formation	53	23	30
(b) Increase in stocks	49	23	26
B. Gross fixed capital formation by kind of economic activity of owner:			
(a) Industries	25	15	10
(b) Producers of government services	22	14	8
(c) Producers of private non-profit services to households	4	0	4
10. National income and distribution of national disposable income	33	18	15
11. Distribution of capital flows	31	18	13
12. Income and outlay and capital transactions of enterprises:			
a. Non-financial corporate and quasi- corporate enterprises:			
01 All enterprises:			
Income and outlay	14	5	9
Capital accounts	11	5	6
Transactions in assets and liabilities	7	4	3
02 Private enterprises:			
Income and outlay	5	3	2
Capital accounts	3	3	0
Transactions in assets and liabilities	3	3	0
03 Public enterprises:			
Income and outlay	5	3	2
Capital accounts	3	3	0
Transactions in assets and liabilities	2	2	0

/...

Table 2 (continued)

Questionnaire table numbers	Number of countries responding		
	All countries (110)	Developed countries (25)	Developing countries (85)
b. Financial institutions:			
01 All enterprises:			
Income and outlay	12	6	6
Capital accounts	11	6	5
Transactions in assets and liabilities	7	4	3
02 Private enterprises:			
Income and outlay	5	3	2
Capital accounts	5	4	1
Transactions in assets and liabilities	3	2	1
03 Public enterprises:			
Income and outlay	4	3	1
Capital accounts	5	4	1
Transactions in assets and liabilities	3	2	1
13. Financial transactions of financial institutions:			
01 All financial institutions	12	7	5
02 Central bank	9	5	4
03 Other monetary institutions	11	6	5
04 Insurance	10	7	3
05 Other financial institutions	11	6	5
14. Income and outlay and capital transactions of general government:			
a. Total:			
Income and outlay	60	23	37
Capital accounts	43	20	13
Transactions in assets and liabilities	11	6	5
b. Central government:			
Income and outlay	46	20	26
Capital accounts	33	18	15
Transactions in assets and liabilities	9	3	6

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Table 2 (continued)

Questionnaire table numbers	Number of countries responding		
	All countries (110)	Developed countries (25)	Developing countries (85)
c. State and local government:			
Income and outlay	34	17	17
Capital accounts	25	13	12
Transactions in assets and liabilities	6	4	2
d. Social security funds:			
Income and outlay	21	13	8
Capital accounts	16	13	3
Transactions in assets and liabilities	4	3	1
15. Selected outlays of general government by purpose (consolidated):			
01 Final consumption expenditure	16	7	9
04 Subsidies	15	7	8
05 Social security benefits, social assistance grants and unfunded employee welfare benefits	13	6	7
06 Other current unrequited transfers	15	6	9
07 Gross capital formation	15	7	8
08 Capital transfers	13	6	7
09 Net acquisition of assets of quasi- corporate government enterprises	4	1	3
11 Purchases of land and intangible assets, net	3	1	2
16. Income and outlay and capital transactions of households including private non-financial unincorporated enterprises:			
Income and outlay	30	16	14
Capital accounts and transactions in assets and liabilities	17	10	7
17. External transactions:			
External receipts and disbursements, current	72	23	49
External transactions on capital account	52	18	34
External transactions in financial assets and liabilities	24	12	12

Table 3. Country responses to the national accounts questionnaire:  
detailed information by frequency of response

Questionnaire table numbers		Number of countries responding		
		All countries (110)	Developed Countries (25)	Developing countries (85)
<b>GROUP 1</b>	<b>(Over 50 per cent of developing countries responding):</b>			
1aA	Expenditure on GDP, current	107	25	82
4a(a)	GDP by kind of activity, current, industries	103	22	81
1aB	Cost structure of GDP, current	104	25	79
4a(b)	GDP by kind of activity, current, producers of government services	96	22	74
2	<b>National income and national disposable income</b>	94	25	69
9aA(a)	Gross fixed capital formation, current, type of good	91	24	67
9aA(b)	Increase in stocks, current, type of good	85	24	61
3	Capital transactions, consolidated	75	23	52
4b(a)	GDP by kind of activity, constant, industries	67	17	50
17(i)	External transactions, current	72	23	49
4a(c)	GDP by kind of activity, current, other producers	68	22	46
1b	Expenditure on GDP, constant	67	24	43
<b>GROUP 2</b>	<b>(15-50 per cent of developing countries responding):</b>			
4b(b)	GDP by kind of activity, constant, producers of government services	58	17	41
14a(i)	General government, income and outlay	60	23	37
17(ii)	External transactions, capital account	52	10	34
7	Government final consumption expenditure by purpose	50	18	32
4a Supp.	GDP by kind of activity, current, selected industries	45	14	31
9bA(a)	Gross fixed capital formation, constant, type of good	53	23	30
9aB(a)	Gross fixed capital formation, current, industries	49	21	28
9bA(b)	Increase in stocks, constant, type of good	49	23	26
14b(i)	Central government income and outlay	46	20	26
8a	Private final consumption expenditure, current, by object	47	22	25
9aB(b)	Gross fixed capital formation, current, producers of government services	43	20	23
5(a)02	Compensation of employees, industries	31	10	21
5(a)03	Operating surplus by kind of activity, industries	29	8	21
4b(c)	GDP by kind of activity, constant, other producers	35	15	20
5(b)01	Domestic factor incomes, producers of government services	29	9	18
4b Supp.	GDP by kind of activity, constant, selected industries	29	12	17

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Table 3 (continued)

Questionnaire table numbers		Number of countries responding		
		All (110)	Developed countries (25)	Developing countries (85)
14c(i)	State and local government income and outlay	34	17	17
7 Supp.	Government consumption by cost composition and purpose	24	8	16
8b	Private final consumption expenditure, constant, by object <b>disposable income</b>	37	22	15
10	<b>National income and distribution of national/</b>	33	18	15
14b(ii)	Central government capital accounts	33	18	15
5(b)02	Domestic factor incomes, other producers	21	7	14
16(i)	Income and outlay, households	30	16	14
14a(ii)	General government capital transactions	43	20	13
11	Distribution of capital flows	31	18	13
<b>GROUP 3</b>	<b>(less than 15 per cent of developing countries responding):</b>			
14c(ii)	State and local government capital accounts	25	13	12
17(iii)	External transactions, financial assets and liabilities	24	12	12
9bB(a)	Gross fixed capital formation, industries	25	15	10
8c	Private final consumption expenditure by durability	22	13	9
12a01(i)	Non-financial corporate and quasi-corporate enterprises, income and outlay	14	5	9
15-01	General government final consumption by purpose	16	7	9
15-06	General government other current transfers by purpose	15	6	9
9bB(b)	Gross capital formation, producers of government services	22	14	8
14d(i)	Social security funds income and outlay	21	13	8
15-04	General <b>government</b> subsidies by purpose	15	7	8
15-07	General government gross capital formation	15	7	8
15-05	General government social security benefits etc. by purpose	13	6	7
15-08	General government capital transfers by purpose	13	6	7
16(ii)	Household capital accounts and transactions in assets and liabilities	17	10	7
12a01(ii)	Non-financial corporate and quasi-corporate enterprises, all, capital accounts	11	5	6
12b01(i)	Financial institutions, all, income and outlay	12	6	6
14b(iii)	Central government transactions in assets and liabilities	9	3	6
9aB(c)	Gross fixed capital formation, private non-profits	18	13	5
12b01(ii)	Financial institutions, all, capital accounts	11	6	5
13-01	Financial institutions, financial transactions, all	12	7	5
13-03	Financial institutions, financial transactions, other monetary institutions	11	6	5



Table 3 (continued)

Questionnaire table numbers		Number of countries responding		
		All countries (110)	Developed countries (25)	Developing countries (85)
13-05	Financial institutions, financial transactions, other financial institutions liabilities	11	6	5
14a(iii)	General government transactions in assets and/	11	6	5
6a	Supply and disposition of commodities, current	8	4	4
9bB(c)	Gross fixed capital formation, private non-profits	4	0	4
13-02	Financial transactions, central bank	9	5	4
12a01(iii)	Non-financial corporate and quasi-corporate enterprises, transactions in assets and liabilities	7	4	3
12b01(iii)	Financial institutions, all, transactions in assets and liabilities	7	4	3
13-04	Financial transactions, insurance	10	7	3
14d(ii)	Social security funds, capital accounts	16	13	3
15-09	Net acquisition of assets of quasi-corporate government enterprises, by purpose	4	1	3
12a02(i)	Private non-financial enterprises, income and outlay	5	3	2
12a03(i)	Public non-financial enterprises, income and outlay	5	3	2
12b02(i)	Private financial enterprises, income and outlay	5	3	2
14c(iii)	State and local government, transactions in assets and liabilities	6	4	2
15-11	General government purchases of land and intangible assets, net, by purpose	3	1	2
12b02(ii)	Private financial institutions, capital accounts	5	4	1
12b02(iii)	Private financial institutions, transactions in assets and liabilities	3	2	1
14d(iii)	Social security funds, transactions in assets and liabilities	4	3	1
12b03(i)	Public financial institutions, income and outlay	4	3	1
12b03(ii)	Public financial institutions, capital accounts	5	4	1
12b03(iii)	Public financial institutions, transactions in assets and liabilities	3	2	1
12a03(ii)	Public non-financial enterprises, capital accounts	3	3	0
12a03(iii)	Public non-financial enterprises, transactions in assets and liabilities	2	2	0
12a02(ii)	Private non-financial enterprises, capital accounts	3	3	0
12a02(iii)	Private non-financial enterprises, transactions in assets and liabilities	3	3	0
6b	Supply and disposition of commodities, constant	0	0	0

reveal any striking differences in the rank ordering for developed and developing countries. None of these results should be particularly surprising. Perhaps the most encouraging feature is the fairly widespread ability to supply consolidated income and outlay information in addition to production information.

## 2. Conformity to SNA definitions and classifications

42. In so far as it is possible to discover from the information supplied, the aggregate data in countries' questionnaire responses do roughly conform to the SNA definitions. This is true, however, only for the larger aggregates and only for the quantitatively more important aspects of the definitions. In detail, there are widespread departures from the SNA recommendations not only in terms of definitions of specific flows but also in terms of classifications and sectoring. Some of these departures affect only the more detailed breakdowns but some influence the major aggregates. Enough time has elapsed since the adoption of the revised SNA to suggest that this is not a temporary phenomenon. Particular instances of such departures from SNA definitions are discussed in the background documents which will be available to Commission members during the session.

43. With regard to classifications, the situation is somewhat more complex. The classifications embedded in SNA are of two types. Some are essential to the structure of the system but others are not. The classification by kind of economic activity, for instance, is of the latter type. While it is convenient for international reporting for a standard list of kinds of activity to be used, it need not affect the aggregates if the breakdown employed by countries is somewhat different. The same is true of the detailed breakdowns of expenditure categories. There is variation in what countries supply; indeed few countries supply the more detailed breakdowns at all. But in a sense these deviations are not important. They have little impact either on over-all comparability or on the way the data can be used for analysis.

44. This is not true, however, of all the SNA classifications. The classification of government revenues into direct and indirect components, for instance, is fundamental to the definition of national income. (While national income as an aggregate does not appear in the revised accounts, its essential components do.) There is wide conformity in the classification of some kinds of taxes into direct and indirect categories but there are other kinds of taxes where treatment varies. Particular difficulty seems to arise in the case of those kinds of taxes for which SNA recommends a different treatment depending upon the identity of the payer. In the case of newly important kinds of taxes such as value-added taxes (VAT), SNA provides little guidance and country practices vary.

45. A second area in which classifications do not seem to follow the SNA recommendations fully is in the breakdown of production. Although the distinction between commodities and other goods and services and the corresponding distinction between industries and other producers is a basic feature of the revised SNA, very few countries seem to make the distinction in the way the Blue Book specifies. Nor do countries, often, preserve the distinction between the reporting units called for in the production accounts and those called for in the income and outlay

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accounts; producers of government services, for instance, are often identical with the institutional units of general government.

46. There are a number of other areas in which sectoring departs from the SNA recommendations. Private non-profit institutions serving households are seldom shown separately. Quasi-corporate enterprises are often combined with unincorporated enterprises. The subsectoring of the enterprise sector that SNA calls for is generally not supplied and the subsectoring of the general government sector that is supplied frequently differs from SNA recommendations, especially for the social security subsector and the central bank subsector.

47. In terms of valuation, there is great variation in the questionnaire responses. The questionnaire itself calls for the use of several different valuation bases. In the tables on gross domestic product by kind of activity (table 4 of the questionnaire), the standard SNA producers' value is called for. The table on supply and disposition of commodities (table 6), however, being based on the chapter IX adaptation for developing countries, calls for a different treatment of trade and transport margins and import duties. The remaining tables generally call for purchasers' values. The country responses contain not only these variants but several others as well. Some countries do not distinguish import duties from other types of indirect taxes and allocate none of them by kind of activity, thus providing an activity classification based on factor cost. Others classify some kinds of indirect taxes by industry but not others. Some go the other way, allocating all indirect taxes either to the trade sector, to domestic industries producing similar items or to the purchasing industries.

### C. Review of country practices and comments

48. A thorough review of all aspects of countries' national accounting systems is of course a very sizable undertaking. In order to limit the task to manageable proportions, the number of countries whose publications were examined in detail had to be restricted. This is a continuing project and the number of countries included will gradually be increased. The publications of a number of countries were surveyed generally and those of 12 countries and the European Economic Community (EEC) were examined in more detail. The 12 countries chosen represent a variety of regions, stages of statistical development and types of economy. Within the regions, the countries examined had relatively well developed national accounting systems, since of course it is only these that can provide insight into what countries actually find useful. For this reason, also, developed countries are relatively over-represented, amounting to seven of the 12. <sup>13/</sup> In addition to what appears in published statistics, however, account was also taken of points that have arisen in correspondence, seminars, working groups and published commentaries. Only the major points are summarized below.

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<sup>13/</sup> The countries included are Argentina, Brazil, Canada, Federal Republic of Germany, France, India, Japan, Kenya, Sweden, United Kingdom, United States of America and Zambia.

49. A number of the countries examined have made explicit efforts to move their national reporting systems in the direction of the revised SNA, though in some cases this is not yet reflected in the published statistics. The discussion that follows will first consider the sectoring and accounting structure of the published accounts. It will then move to a consideration of countries' treatment of related data, a summary of the discussions relating to the special needs of developing countries, other extensions of the accounts, classifications and definitions and information content, and finally a summary of the views that have been expressed about the objectives of the national accounts.

#### 1. Sectoring and accounting structure

50. The standard accounts of SNA are, as noted in paragraph 18, divided into three classes, which also reflect the sectoring systems. Class I accounts are consolidated accounts employing no sectoral breakdown. Class II accounts are sectored by kind of activity and class III accounts by institutional groupings. The need for some form of summary consolidated accounts seems to be universally recognized and quite a few of the countries examined do compile summary accounts that closely resemble the SNA class I form. Departures from this format are most often in the direction of still further consolidation, collapsing the four accounts of SNA into one or two. Countries that have moved beyond consolidated accounts for the nation as a whole typically do employ some form of institutional sectoring like that of the class III accounts. Kind-of-activity sectoring like that of the class II accounts, however, occurs much less frequently in the core accounts. This does not, of course, imply that kind-of-activity data are not compiled. As the Blue Book suggests, many (perhaps most) countries employ production data as their primary source. But few seem to find it convenient to arrange the data in the form of the SNA class II accounts. The kind-of-activity breakdown appears most frequently as a separate table, not articulated into the sector accounting system; production accounts are often shown either only in the form of consolidated accounts for the nation as a whole or on the institutional sectoring basis.

51. As a consequence of this treatment, the accounts of several countries show a high degree of uniformity and regularity that is not present in SNA. The same groups of transactors (sectors) are used throughout and the same accounts (and within the accounts, the same transactions) are shown for all sectors and for the economy as a whole.

52. The accounts of France <sup>14/</sup> are an example of this approach. Six accounts are shown for each of six main institutionally defined sectors. The accounts are the same for all sectors (except in so far as some flows are by definition zero). The first two accounts include the kinds of information contained in the SNA production accounts, the next two correspond to the SNA income and outlay account and the final two to the SNA capital finance account. Thus in format the French accounts closely resemble those called for by EEC for its European System

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<sup>14/</sup> Institut national de la statistique et des études économiques, Systeme élargi de comptabilité nationale (Paris, May 1970).

of Accounts. Kind-of-activity information appears in the form of an input-output table. The institutional sectoring employed in the French accounts emphasizes financial sectors, showing several sectors and subsectors for public and private financial institutions and substantial detail on financial transactions. Unincorporated enterprises that are not considered quasi-corporations are combined with households.

53. The national accounts of the Federal Republic of Germany take a somewhat similar approach. These accounts were last revised extensively in 1968. <sup>15/</sup> Thus they were under development at approximately the same time as the revised SNA and account was taken of a number of its conceptual and definitional requirements. But the accounting structure contains a number of features that are different from SNA. As in the French accounts, sectors are defined institutionally and one set of institutional sectors is retained throughout the accounts. The German accounting structure emphasizes the derivation of the familiar aggregates as the balancing items in specific accounts. Thus there are seven accounts for each sector to derive that sector's contribution to (a) gross domestic product (b) net domestic product at factor cost, (c) national income, (d) disposable income, (e) saving and (f) the financing requirement. The balancing item in the final account is the statistical discrepancy. In addition to the accounts for institutional sectors, a consolidated product and expenditure account and a consolidated rest-of-the-world account are provided for the economy as a whole. The input-output table is regarded as a deconsolidation of the consolidated product and expenditure account, not as an integral part of the sector accounts.

54. A unique feature of the accounts of the Federal Republic of Germany is the treatment of unincorporated enterprises. Unlike SNA, saving of unincorporated enterprises that is retained in the business is distinguished from the income withdrawn for household use. <sup>Corr. 1</sup> ~~These items are~~ <sup>These latter</sup> shown on the capital transactions accounts of both the household and enterprise sectors, as a use of funds by households and a source for enterprises. A second interesting feature is the treatment of non-profit institutions. Though still included in the household sector, non-profit institutions are provided with separate production accounts from those of households proper. An intent has been expressed to provide complete accounts for the non-profit institutions subsector at some time in the future.

55. The 10 remaining countries studied can be divided roughly into three groups. The first includes other countries that have either explicitly or implicitly taken steps to move towards the revised SNA. The second includes countries still using the old SNA and the third, countries employing systems not based on either version of SNA.

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<sup>15/</sup> Organisation for Economic Co-operation and Development, Structure and Sources of National Accounts in Germany (Paris, 1975).

56. The first group includes five countries: Sweden, Zambia, India, Kenya and Canada. <sup>16/</sup> The extent to which the resulting country accounts resemble those of chapter VIII of the Blue Book, however, differs substantially between the first two of these countries and the last three. Sweden has accounts that are very close to the SNA class I and class III accounts, except that private non-profit institutions are combined with households. Instead of the class II accounts, however, a table is substituted showing the cost composition of GNP at basic value for industries (including private non-profit institutions serving households and the services of domestic servants) and for producers of government services. Zambia uses the class I accounts and shows class II accounts for (a) seven subsectors of industries, (b) producers of government services and (c) private non-profit institutions and domestic servants combined. Class III accounts are limited by data availability but they are shown for general government and financial institutions. In addition, Zambia provides detailed information on the composition of final expenditure and a table on the supply and disposition of commodities similar to that shown in chapter IX of the Blue Book. These two countries do preserve the distinction between commodities and other goods and services and between industries and other producers.

57. In India and Kenya, the resemblance to the SNA accounts is much less close. India uses the class I accounts, with a few changes in the items shown. The remaining information departs significantly from the SNA chapter VIII form but does incorporate some features of the chapter IX proposals. There is considerable emphasis upon the public sector, defined to include administrative departments, departmental enterprises and non-departmental enterprises. The remainder of the economy is divided into organized and unorganized sectors but complete accounts are not shown for these sectors, either for production or for income and outlay. Factor incomes (compensation of employees, interest, rent, profits and dividends and mixed income from self-employment) are shown for these broad sectors and for 16 kind-of-activity subsectors (without division into industries and other producers). The accounts of Kenya are less complete but they emphasize the same kinds of division: first into monetary and non-monetary and, within monetary, into traditional and modern and into private and public.

58. The Canadian accounts represent a very interesting example of national adaptation to the revised SNA. Accounts are provided for production, income and outlay, and capital finance, as called for in SNA. But the production account is shown only in the form of a consolidated account for the nation as a whole. Only the income and outlay and capital finance accounts are deconsolidated by sectors; the sectors used are essentially the institutional sectors of the revised SNA except that non-profit institutions are not shown separately. As a result of this

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<sup>16/</sup> Sweden, "Nationalräkenskaper 1963-1975", Statistiska meddelanden, N 1976:7.4.; Zambia, "National accounts: 1970" (Lusaka, Central Statistical Office, February 1973); India, "National accounts statistics, 1960-61-1974-75" (Delhi, Central Statistical Organisation, October 1976); Kenya, Statistical Abstract, 1975 (Nairobi, Central Bureau of Statistics); Canada, National Income and Expenditure Accounts, vol. 3, (Ottawa, Statistics Canada, September 1975).

adaptation, only an institutional sectoring system is required. Input-output information is once again provided as a deconsolidation of the consolidated production account, in this case employing make-and-use matrices much like SNA's. Since they do not break the production account down at all, the Canadian accounts do not need the commodity/other goods and services break or the industry/other producers break and this classification is not used in the input-output tables.

59. The second group of countries, those still using the old SNA, includes three countries of this sample: Argentina, Brazil and Japan. <sup>17/</sup> In the case of Japan, a major revision is in progress designed to move the accounts to the revised SNA basis but this has not as yet influenced the published account. The Brazilian and Argentine cases, however, are representative of a rather sizable group of countries. These include countries at an intermediate level of statistical development which had developed national accounts on the basis of the old SNA prior to 1968. In the Argentine case, the accounts provided are essentially the current accounts of the old SNA, together with a consolidated capital finance account for the nation as a whole. In addition, a breakdown of the cost-composition of gross output is given for nine industries. The Brazilian accounts show somewhat more modification to meet national needs; in particular, there is a considerable emphasis upon geographical distribution.

60. The final group of countries consists of the United States of America and the United Kingdom. In these countries, national accounts long antedate the revised (or even the old) SNA. In small respects, alterations in the national statistics in the direction of the revised SNA have been made in both sets of accounts. Both, for instance, now show gross domestic product, although they retain national concepts as their main emphasis. Nevertheless, the accounting structures are essentially unchanged from the versions in use before the revised SNA was developed. Both incorporate relatively complete sector accounts for institutionally defined sectors. Input-output data are treated, as in several of the national systems already discussed, as deconsolidations of the production account for the economy as a whole. The United States of America uses the product-whenever-made concept to derive a single square input-output matrix; the United Kingdom uses the dual make-and-use matrix approach.

61. In the case of the United Kingdom, a plan for the future development of the national accounts has been published <sup>18/</sup> and it may be interesting to note the directions in which further work is contemplated. In terms of the basic estimates,

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<sup>17/</sup> "Sistema de cuentas del producto e ingreso de la Argentina" (Buenos Aires, Banco Central de la República Argentina, 1975); "Contas Nacionais do Brasil" (Rio de Janeiro, Fundação Getulio Vargas, 1972); Japan, "Annual report on national income statistics" (Tokyo, Economic Planning Agency, 1977).

<sup>18/</sup> J. Hibbert and J. W. S. Walton, "Developments in national accounts", Economic Trends (July 1977), pp. 97-109.

it is anticipated that increased use will be made of data derived from the production side to support the estimates now principally derived from income data. This, of course, is also the thrust of the revised SNA. In terms of extension of the accounts, there is interest in further subsectoring, especially of the household sector by social and demographic characteristics. The development of estimates of wealth and its distribution is considered to be an important aspect of this. Geographical distributions are of increasing interest. Finally, there are a number of questions relating to valuation in which there is interest, both from the point of view of international comparisons and from the point of view of intertemporal comparisons. In connexion with the latter, the implications of the various forms of inflation accounting are being explored. In the United States, a volume containing a number of review articles on the national accounts was published in 1971. <sup>19/</sup> While the publication is too long and varied to summarize here, it is interesting to note that a number of the above points were made in it.

## 2. The related forms of accounts

62. The accounting structure of the revised SNA incorporates into its main framework many of the related forms of data such as input-output and flow of funds, reflecting the fundamental concept of the role of SNA as an organizing vehicle for the whole range of economic statistics. When the revised SNA was developed, it was well in advance of country practice; in those cases in which countries did compile the related forms of data these data were often not integrated with the national accounts. Many more countries now compile these related forms and their relationship to the main accounts has been the subject of much discussion.

63. Input-output information is a key element of the revised SNA system, basic to the methodology proposed for construction of the class II production accounts and by implication even the class I gross domestic product account. For the developing countries, the supply and disposition table is substituted but the philosophy is the same. It does not appear, however, that most countries yet look upon input-output information in this way. Input-output data are regarded as extremely important for bench-mark purposes but not as something to be compiled as frequently as the national accounts. It is interesting to note that even in EEC, in which most countries have well-developed national accounts, it has not yet been found feasible to implement EEC's requirement for simplified annual input-output tables. Production data are frequently the basis for estimation of the aggregates but data limitations prevent many countries from completing the full input-output structure. It is perhaps for this reason that the class II accounts seem to be the part of SNA that is least frequently adopted by countries for their own use. Instead, a breakdown of GDP by kind of activity is often found, sometimes also with a similar breakdown of gross capital formation.

64. Flow-of-funds accounts are an area where country experience is accumulating rapidly. When the SNA guidelines in this area were first drawn up, there was little

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<sup>19/</sup> United States Department of Commerce, Office of Business Economics, The Economic Accounts of the United States: Retrospect and Prospect, in Survey of Current Business, fiftieth anniversary issue, vol. 51, No. 7, part II (July 1971).



*Corr. 1* actual country experience on which to base them. For balance-sheets and ~~revaluation~~ *reconciliation* accounts, the SNA guidelines are still well in advance of what most countries do, but interest in this area is rising. The impact of world-wide inflation is particularly felt in the new field of inflation accounting; in this context a need is frequently expressed for further study of the methodology of compiling sector balance-sheets and for a reconsideration of the analytic consequences of the SNA recommendations relating to revaluation. Questions have also been raised about the data requirements of the SNA recommendations from the point of view of the probable reliability and validity of the resulting estimates.

65. There is widespread interest in public sector accounts. On the one hand, there is much concern over the problems of reconciling the SNA approach to the public sector with that taken in the International Monetary Fund draft "Manual on government finance statistics". Both national accounts technicians and government finance technicians have frequently emphasized the desirability of a unified approach. The plan for the revision of the United Nations draft manual on public sector accounts was drawn up in close collaboration with the International Monetary Fund and it seeks to ensure that the two manuals will be fully compatible. So long as the two groups retain different interests and objectives, however, they will be likely to emphasize different aspects of the data. On the other hand, quite apart from the question of reconciliation of the SNA and IMF accounts, questions have also arisen having to do with the role of the public sector in the core SNA accounts, including such matters as compatibility of sector definitions and the appropriate level of consolidation. Questions arise, in particular, on the definition and treatment of public enterprises, the social security subsector and the central bank or monetary authority.

66. The question of the integration of balance-of-payments data into the national accounts is one that was last looked at many years ago. Much has changed in the realm of international monetary arrangements since then and the need to bring SNA up to date has been pointed out repeatedly. The version of the IMF Balance of Payments Manual with which the revised SNA was reconciled has been superseded and the present version differs from SNA in many particulars. There are also other bodies of data such as the international trade data compiled by the United Nations where a need for reconciliation has been expressed.

67. A final area in which integration is important is in the relation of the national accounts to social and demographic information. Here the work being done in the Statistical Office on the methods of integration of social and demographic statistics is highly relevant; an expert group met in March 1978 to consider the question. The increasing availability of micro data and the increasing ability of countries to utilize them effectively will inevitably have an impact upon all types of distributional data, which until now have been poorly integrated with the national accounts. This topic will be discussed under item 7(b) of the provisional agenda but it should be considered in this context as well.

### 3. The adaptation for developing countries

68. Apart from what can be observed in country publications, there has been continuing discussion of the needs of developing countries. Here, the Report of the

Interregional Seminar on the Revised System of National Accounts held in Caracas in December 1975 <sup>20/</sup> is interesting. Most of the participants felt that what was needed was not a special developing-country version of the accounts but rather some modification of the main system to take their needs into account. The kinds of questions in which the developing countries are interested, it was argued, are also questions that are of interest to the developed countries. They include key sector accounts, data on sources and uses of funds, data on the role of transnational corporations, questions of the adequacy of the data base and the treatment of non-market transactions. The kinds of information discussed in chapter IX of the Blue Book are relevant; however, the Caracas Seminar participants preferred to see them included in the main system. In a strictly formal sense, this is not difficult. Although a great deal of additional developmental work would be needed to make the guidelines in these areas truly useful either for compilers of data or analytic users, accommodating these kinds of information seems to be more a matter of emphasis than of changes in the system.

69. Participants in the Caracas Seminar did, however, stress the need for guidance on methods of adapting the system to meet the needs of individual countries. It should be possible to add or leave out detail without destroying the balance or completeness of the system. To some extent this is a question of the principles of consolidation employed; some simplification here would make adaptation to special circumstances more straightforward. To some extent also, it is a question of the availability of adequate explanatory materials; developed countries can and do develop their own systems but developing countries do not have the necessary resources.

#### 4. Other extensions of the accounts

70. In both the developed and developing countries, the area in which calls for extension of the accounts are most frequent is that of non-market flows. For development planning and for assessment of the success of development efforts, information is needed on a wide variety of activities which sometimes do not fall within the range now covered in SNA. In industrial countries, marked changes in labour force participation rates have led to an interest in time-use patterns and other non-monetary information. The kinds of non-market flows that are of concern differ in developed and developing countries but the problems they raise are strikingly similar. There are conflicting demands, on the one hand, to include more imputations for non-market activities and, on the other, to keep market transactions undiluted. Both of these concerns are legitimate. For many kinds of economic and financial analysis, only market transactions are relevant. But for social questions and questions dealing with the welfare of the population, consideration of market transactions only is likely to be highly misleading. To date, countries have not exceeded the production boundary of SNA; indeed they often do not include all the types of non-market production that SNA suggests. They do, however, employ classifications different from SNA's which are designed to highlight these problems. A consensus seems to be emerging that the solution lies in showing the market and non-market flows separately; however, a good deal of further study is needed to work out the implications of this conclusion both for the accounts and for basic data collection.

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<sup>20/</sup> See foot-note 3 above.

71. Closely related to the question of non-market imputations are the problems involved in distinguishing traditional and modern modes of production. Several countries have experimented with such classifications and with others such as organized/unorganized, and a substantial amount of work has been done both in countries and by such organizations as OECD <sup>21/</sup> in exploring their implications. To date, the weight of opinion seems to be against the identification of a separate traditional sector, at least partly on the ground that it is not possible to develop a truly satisfactory definition for such a sector. The tendency, rather, is to fall back on more conventional criteria such as size of establishment and, kind of activity.

72. There are several subject-matter areas in which interest has increased greatly since the revised SNA was developed. Notably, these include energy and the environment. Energy might suitably be treated as a key sector; working out the problems involved would clarify the general principles for the integration of key sectors into the main framework of the accounts. The question of the environment, however, is rather different. Some aspects of environmental questions are readily incorporated into the existing accounts without any adaptation as, for instance, pollution abatement costs, and some countries have begun to incorporate them. But the wider environmental questions are less simple and would require much further work before any decisions could be reached. This is an area in which, despite the interest in the topic, there is much resistance to including any measure of the use of environmental resources in the accounts at the cost of impairing their usefulness for other purposes. A division of the accounts into market and non-market components might also be helpful in meeting this problem.

##### 5. Classifications, definitions and information content

73. It is apparent that conformity to SNA definitions is highly related to accounting structure. Countries that have taken steps to move towards the revised SNA accounting structure have usually adopted, at least in broad terms, the definitions of the revised system. Where the old SNA is still in use, the old definitions and classifications are used. Even in countries using neither the old nor the new SNA, however, the existence of international standards has had some impact; compilation of gross domestic product as at least a supplemental aggregate is now almost universal. Nevertheless, national variants do appear, to some extent in the major aggregates but especially in the more detailed flows. Some of these are discussed in the background documents which will be available to Commission members during the session. The discussion below will be confined to the major aggregates and the information content of the national systems examined.

74. In terms of the aggregates around which the system is organized, the revised SNA represents some break with earlier practice in that such familiar concepts as gross national product at market prices and national income at factor cost do not appear. The use of domestic rather than national product in the production accounts

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<sup>21/</sup> A study session was held in Paris in October 1977 on the topic, "Towards distinguishing between traditional and modern activities in the national accounts of low income countries."

is carried over from the old SNA. In the revised consolidated accounts for the nation (the class I accounts), the new concept of national disposable income at market prices replaces both gross national product and national income. Valuation at factor cost has been replaced, in the context of input-output relationships, by the new concept of basic value, in practice modified to approximate basic value. Everywhere else, valuations are in terms of market prices. There is new emphasis on the location of the market, however, in that producers' prices are distinguished from purchasers' prices.

75. In one sense, there is great variety in the aggregates found in national publications. Seven of the 12 countries examined use for their own purposes one or both of the aggregates called for in the revised SNA, i.e., gross domestic product at market prices or national disposable income. Six use (either in addition or instead) gross national product at market prices and national income at factor cost. Most countries, however, make use of both domestic and national concepts and both market and factor valuations. (The general absence of approximate basic value may be noted.) It is among the developed countries with long-established national accounting systems that gross national product at market prices and national income at factor cost continue to play a major role. Countries with more recently developed statistics seem readier to adopt the aggregates of the revised SNA.

76. In another sense, however, the range of variation is very narrow. In no country has any real departure been observed from the concepts essentially developed 35 to 40 years ago in the context of the great depression of the 1930s and the war needs of the 1940s. Although the importance of such questions as environmental quality, developmental expenditures and resource exhaustion has been widely recognized and much discussed, countries have not found any suitable way of embodying these concerns into the national accounting framework. The expert group on welfare measures to supplement the national accounts and balances, which met in March 1976, concluded that any attempt to alter the existing accounts to take account of these concerns would be premature, in that it would endanger their usefulness for meeting demonstrated needs without any assurance that it would be possible to meet the newly perceived needs satisfactorily. Nevertheless, these concerns do remain of pressing importance and some way of dealing with them is worth exploring.

77. The differences in sectoring and accounting structure also have other consequences for the information content of national systems. Countries appear to find it useful to apply both institutional and industrial classifications to all aspects of economic activity. The dichotomy of SNA is seldom found. (Even SNA, in the end, breeches it; supporting table 17 classifies factor incomes by institutional sectors and kind-of-activity sectors.) Industrial breakdowns of income shares and of saving and investment and institutional breakdowns of output by commodity frequently occur. This does not mean, of course, that countries are unaware of the problems which led to the SNA solution. Rather, it means that the information involved is really needed for policy purposes. Information on savings and investment transactions on an industry basis is required in order to understand the saving and investment process; the behaviour of manufacturing companies for

*Supporting table 20 classifies income and outlay and capital finance transactions by*

*Comm. 1*

instance, differs radically in this respect from that of public utilities. Closely associated are industrial differences in the distribution of various types of property income. In the same way, production accounts may be required for institutional sectors; the production functions of public and private corporations and unincorporated enterprises are likely to differ substantially even within the same industry. It is nevertheless clear that the natural unit for compiling data on production is the establishment and the natural unit for compiling data on savings and investment transactions and on the distribution of property income is the enterprise. This is a problem with which national accountants have long struggled; the effort to find a better solution to it is important.

78. One aspect of the information content of national accounting systems which reflects both classifications and accounting structure has to do with the ease of consolidation. In SNA the relationships between either the class II or the class III accounts and the class I accounts are not simple - the Blue Book requires two pages of equations merely to set them out. Countries, generally, take simpler and more straightforward approaches to deconsolidation. Most, furthermore, find a use for a level of consolidation involving three to five major decision-making sectors. Such a structure is analytically far more useful than the consolidated accounts for the nation but is still sufficiently concise to provide a comprehensive over-all view of the operation of the economy. At the same time, it should be possible to move easily from this level of consolidation to the much greater level of detail called for in SNA; what appears to be needed is the specification of uniform principles of consolidation, simpler in operation than the Blue Book's.

79. Development of accounts at such an intermediate level would have a further consequence, which is reflected in the publications of some countries. It is often the case that it is neither desirable nor possible to develop the full set of class II or class III accounts for detailed subsectors, for reasons of cost and data availability. An alternative approach is to make use of supporting tables to carry the detailed breakdowns for those aspects of the system where the detail is actually wanted. The double-entry accounting structure can then be limited to those relationships in which articulation is significant - that is, to those flows <sup>for</sup> in which it is important to know what the to-whom, from-whom relationships are. Consolidation based on this principle would involve not only a hierarchical interrelationship of sectors but also a grouping of the flows within accounts to eliminate unneeded detail.

## 6. Purpose and objectives of national accounts

80. The discussion that took place at the Caracas Seminar is typical of a large group of comments and questions relating to the objectives of the national accounts, both as a general concept and in the particular form embodied in SNA. Several views were presented, which led naturally to different conceptions of the proper role of a national accounting system and the priorities for its implementation. On the one hand, some viewed the national accounts primarily as a systematic way to organize economic statistics. Its main value, to these participants, lay in its consistent classifications and definitions and in its display of the

interrelationships among various parts of the economy. In terms of priorities, this view leads to an emphasis upon the improvement of basic statistics rather than a concern with building a comprehensive accounting system. As the basic statistics become strong enough to warrant it, the accounts can gradually be expanded; however, a premature attempt to compile aggregates is regarded as unsound.

81. A more prevalent view, however, was that the national accounts had a unique contribution to make to economic analysis in its very comprehensiveness and in its structuring so as to facilitate the study of interrelationships. (For those who took this view, the specific form of structuring adopted was of great importance.) One or two participants expressed the view that the SNA would stand or fall on the basis of whether it provided in principle a satisfactory framework for presenting data in a suitable way for objective decision making and whether in practice the data compiled were actually used by decision makers in government and the private sector. What appeared to be simply a technical question of national accounting was in fact of great importance to the user, because the structure of the accounts and the definitions employed determine very largely what sort of analysis can be carried out, both in national research and in international comparisons. Indeed, the form of the accounts even influences thinking about economic and social issues. Some of those who took this view laid great emphasis upon the need for improved materials on methodology and sources to help those who struggle with the actual problems of tailoring a programme to a country's requirements, setting priorities and working out a sequence of steps to produce an appropriate system of accounts. There was wide support for this call for better explanatory materials, not only for sources and methods but also for explaining the logic of the system itself and how it could be adapted to typical country situations and for elaborating upon the uses of a national accounting system. The need for this last was pointed up by several participants who said that in their countries national accounts were compiled because they were required by donors of external aid, not because they had any perceived domestic use.

#### IV. PROPOSED PROGRAMME FOR FUTURE WORK ON NATIONAL ACCOUNTS

82. What emerges from this review of experience with the revised SNA is, despite the great variety of individual points raised, a relatively clear picture of the directions in which further work on the system of national accounts would be useful. The subject may conveniently be discussed on two levels: on the one hand, the substantive content of the work and, on the other, the kinds of end-products, in terms of manuals and other publications, that would be useful.

##### A. Substantive content

##### 1. Clarification and integration

83. The revised SNA is a general and complete statistical system which, to be fully useful, must be readily understood both by those who are charged with compiling the data and by those who make use of the resulting data for analysis. In order to compress into a single volume the discussion of as wide a range of topics as are covered in the Blue Book, much had, of course, to be left out. As a consequence, the discussion of concepts, definitions and classifications is sometimes cryptic. Also, it has become clear that there are some points of inconsistency that need to be resolved and some new concepts that need explanation. A first priority for future work, therefore, is the clarification of concepts and classifications where problems have arisen. Some of the more important topics that might be included are questions affecting the definition of gross fixed capital formation, the coverage and treatment of non-marketed production, indirect taxes and banking and insurance. These topics might suitably be the subject of technical reports which would survey country practices, explore alternative treatments and suggest preferred solutions for further discussion.

84. The integration of all of the aspects of the revised SNA into one consistent presentation is also of high priority. In this process, the types of consolidations provided for are of central importance. Both on the basis of what countries do for their own use and on the basis of comments received, it is clear that accounts at an intermediate level of consolidation would be useful. This is, furthermore, the level that would most appropriately form the basis for the national accounts questionnaire; the development of such an intermediate set of accounts would be a very useful preliminary step in the improvement of the questionnaire and the publications based upon it.

##### 2. Extensions to meet new needs

85. There does appear to be considerable consensus on the subject-matter areas in which extensions of the national accounts would be useful and on appropriate ways to approach such extensions. Research is clearly needed on ways to accommodate non-market activities without impairing the usefulness of the data for the analysis of market activities. The kinds of non-market activities that need to be considered are quite various. For the developing countries, they include not only the types of activities with market analogues that are now in principle within

the production boundary of SNA but a number of further extensions in terms of activities taking place within the household and communal activities. For all countries, questions relating to the environment are important. There is also much interest in the developed countries in non-market activity taking place within the household, both from a human-capital, developmental point of view and for the analysis of the impact of changing labour force participation patterns.

36. Research is also needed on the question of the appropriate treatment of the kinds of information recommended in chapter IX. Whether these kinds of information are considered to be especially needed by the developing countries or of more general relevance, the possibility of bringing such kinds of information as key sector accounts, regional accounts and public sector accounts into the main framework of SNA should be investigated. Such concepts as traditional and modern modes of production need to be considered from the point of view of practical feasibility. In this context also, distributional data are increasingly important and methods of ensuring their compatibility with the aggregate accounts need to be explored, again in terms of what is practical for countries at various stages of statistical development.

37. A final aspect of the extension of SNA is the adaptation of classifications in such areas as kind of activity (the International Standard Industrial Classification of all Economic Activities, ISIC), goods and services (the International Standard Classification of all Goods and Services, ICGS), end use and functions of government and non-profit institutions. Continual work is needed to incorporate information on newly important topics, including not only major questions such as energy and the environment but much more detailed points arising from the appearance of new products and the disappearance of old, changes in production processes and so on. This is a part of the long-range programme of work on classification, aimed at the eventual development of a combined trade-production commodity classification. The development of such a classification, which was approved by the Statistical Commission at the nineteenth session 22/ would, of course, greatly facilitate the compilation of national accounts, in that it would permit the integration of trade and production data in a way that is generally not possible now.

#### B. Prospective publications

38. Discussions such as those that took place at the Caracas Seminar make it apparent that the publications now supplementing SNA do not fully meet the needs of either national accounting technicians or prospective users of the national accounts. Better explanatory materials are needed in three areas: a publication explaining the system itself (i.e., up-dating the Blue Book), a manual on the uses of national accounts for planning and policy development and for monitoring performance and a publication with an expanded discussion of sources and methods for compilers of national accounts.

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22/ Official Records of the Economic and Social Council, Sixty-second Session, Supplement No. 2 (E/5910), para. 123.

*"kinds of documentation  
of SNA now existing" was in orig. manuscript  
discussed and changed to printed words.  
NR doesn't like.* 1...



89. Because the SMA is so complex, it is essential to describe and explain it in a way that is not complex and that can readily be followed by interested practitioners. This should be the primary objective of a new explanatory publication. Requiring that the exposition be understandable does not, of course, imply that it should be any less complete or exact. It may well be found that a series of publications covering different aspects of SMA will be more feasible and effective than a single volume.

90. It is not enough, however, to explain what SMA is. There is also a great need for pedagogical materials describing the simpler kinds of uses of national accounts and national accounting data. Although it is true that the field developed in response to demonstrated needs of policy makers, it does not follow that the potential uses of national accounts are always readily perceived. Analysts and policy makers do to some extent tend to learn by doing. There is often an oral tradition and techniques which have been developed are passed on from one generation of government analysts to the next without benefit of formal documentation. But many developing countries do not yet have this kind of experience. Therefore, the transfer of national accounting technology ought to include not only the techniques of constructing national accounts but also the techniques of using them.

91. The final kind of documentation needed relates to sources and methods. A technician working on the compilation of national accounts must always adapt the sources of data and the methods used to the particular circumstances; to some extent the success of the effort will depend upon the individual practitioner's resourcefulness and imagination. One of the best sources of inspiration, however, is a knowledge of what others have done in similar cases. An important contribution can be made by gathering, collating and codifying this sort of information and by the comparative analysis of country experiences.

#### C. Conclusions of the Working Party on National Accounts and Balances

92. The Working Party on National Accounts and Balances of the Conference of European Statisticians that met in February 1978 expressed its general support of the above programme. It was agreed that the Statistical Office should be asked to bring forward for consideration proposals concerned with updating and clarification. With regard to proposals involving modifications of SMA, the majority view was that where the review revealed a general and continuing failure to follow SMA recommendations, the Statistical Office should be encouraged to study the situation to determine whether modifications should be proposed and to develop such proposals where they seemed needed.

93. The following issues were considered to be of particular importance and to deserve special attention in deciding on the priorities to be given to the different items:

(a) Clarification of concepts and classifications where problems have arisen in the interpretation and application of SMA. In the view of the Working Party this issue should be given the highest priority in further work;

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- (b) Review of the national accounting questionnaire;
- (c) Guidance on the use of national accounts;
- (d) Guidance on the preparation of quarterly accounts;
- (e) Further guidance on the compilation of national accounts in constant prices.

#### D. Timing

94. Depending upon the resources available, work can proceed simultaneously on several aspects of the programme. Initial work in the various areas can go on in a relatively independent way, although of course all aspects must be brought together eventually. Work on the provision of new and better explanatory materials has already started, namely, the revision of part I of the provisional "Handbook of national accounting (ST/ESA/STAT.77)", which deals with sources and methods for compiling the production accounts in current prices. The next logical step would be the completion of part II of the Handbook, which is to be concerned with sources and methods for the income and outlay and capital finance accounts.

95. At the same time, it must be recognized that the programme outlined here is a large one and one that should not be carried out hastily. It is important both that the work be done thoroughly and that it reflect a consensus of those interested in this topic. It may reasonably be expected that it would be possible to prepare for the Statistical Commission at the twenty-first session the following:

(a) A progress report on the development of explanatory materials including an outline of an up-to-date Blue Book, a document (possibly by a consultant) on the uses of national accounts and part II of the Handbook together with a summary of further anticipated work on sources and methods.

(b) An outline of a programme of technical reports on specific topics where clarification and updating are needed, such as (i) problems associated with the definition and classification of gross fixed capital formation; (ii) the treatment of non-market production; (iii) indirect taxes, including the treatment of public corporation profits and losses and VAT; and (iv) banking and insurance. A start could be made on the execution of such a programme.

96. Simultaneously, attention will be devoted to improvement of the national accounts questionnaire in the light of past response. It should, on the one hand, provide a more complete overview of countries' economic situations and, on the other, reflect data availabilities in a more realistic way. There is, for instance, clearly interest in including some form of SNA tables 17 and 20 to enhance the questionnaire's usefulness for analysis. Care will be exercised, however, to ensure the continuity of the data series now provided.

97. An important part of such a programme is the establishment of a continuing review activity, including a mechanism for regular consultation with regional bodies and national statisticians. A part of the activity should be the development of proposals for updates and modifications as they seem to be needed. It would be very useful to convene an expert group during 1980 to take stock of the existing situation, including any technical reports completed by then, and to evaluate the longer-term proposed programme of work.