

COMMENTS ON THE OVERALL PROGRAMME

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From time to time any branch of the international statistical community has to consider the revision of a complex system of definitions and classifications. A long-standing example of this need is provided by the history of the International Statistical Classification of Diseases, Injuries and Causes of Death. In this case the utility of a uniform classification was recognized as far back as 1853 at the first International Statistical Congress held at Brussels. A first classification was agreed in 1855, nearly a hundred years before the international standardization of the national accounts was a problem to anybody, and reached its eighth revision in 1965.

Work of this kind has a number of characteristic features in whatever field it is undertaken. First, statistics are used for many practical purposes, and so a practical taxonomic system objectively involves compromises, independently of the preferences of the individuals taking part in its formulation or revision. Second, in some periods what is described by the statistics and the uses to which they are put may be comparatively static, in others great changes may be taking place, so that at some times the main need is to consolidate the position reached and at others to push forward into new territory. Third, there is an inevitable conflict between the desire for comparability with the past and the need to recognize the world as it has evolved. Fourth, changes in the techniques of collecting and processing statistics may be such that improvements can be introduced which could not have been contemplated at an earlier period. Finally, possible changes arrange themselves into three groups: those that are ripe for international standardization; those that have reached a point at which individual statistical offices could reasonably introduce them; and those that require further discussion, clarification and experimentation before the value of proceeding with them can be ascertained.

Turning to Mr Kurabayashi's paper, I shall say at the outset that I will not attempt the impossible task of discussing in detail all the issues he mentions, but will confine myself to a general appraisal of the programme. It is a very large programme and I think it will be a triumph if the Statistical Office manages to complete it by 1990.

I am sympathetic with the aims of the programme as I understand them. I think the main need at the present time is to simplify the work of national statistical offices rather than to introduce major innovations. Simplification will result from tidying up the concepts and definitions of the 1968 revision and harmonising them as far as possible with those used by other international organizations. The handbooks should also help in spelling out the details of the system.

I greatly welcome work on the disaggregation of the household sector, on balance sheets and reconciliation accounts, and on a regional dimension to the system. I hope that these topics, in the order named, will eventually form an integral part of the SNA, though this may not be wholly achieved in the present revision. The failure to disaggregate households was recognized as a shortcoming in 1968. There would have been great difficulty at that time in obtaining uniform information, but the position has probably improved so that by now it may be worthwhile to make the extension. It seems to me a sufficiently important element in the description of an economic system to be included in the SNA even though many countries may not be able to provide it. But then I must confess that I have always thought of the SNA as providing guidelines, not as a system which could be filled in in complete detail by every country in the world.

As I have said, I consider the programme outlined by Mr Kurabayashi highly appropriate at the present stage of development of the system. I think, however, that it would be useful if there were some recognition that quantitative economic description is an ongoing process and that there are a number of issues that deserve mention even if they are not ready for international standardisation. I shall mention four.

First, I attach importance to an integration of macro and micro data on the lines of the outstanding work of Richard and Nancy Ruggles. Here I think we need country experience. In view of the great differences between countries, it is not clear to me what form any attempt at international standardization should eventually take.

Second, I have long been interested in the adjustment and completion of the entries in the national accounts by the method of least squares or some similar procedure. In the last decade we have seen some applications, but there are still very few people engaged on the subject, and a recognition of the importance of such work would be useful.

Third, I have been much interested in the effort made by the UN to form links between the SNA and the MPS. I hope this will continue and that we shall eventually have an accounting framework which accommodates both systems.

Fourth, having got as far as it has in formulating systems of economic, socio-demographic and environmental statistics, I hope the UN Statistical Office will see what can be done to present all this material in a related manner.

2. ODD AUKRUST

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Since Mr. Kurabayashi's paper is in the way of a report on work done or planned, there is nothing here which I have to disagree with. I shall use my time therefore, to offer one proposal and one observation.

I. PROPOSAL FOR AN ADDITION TO THE "COORDINATED WORK PROGRAMME"

My proposal is for one new item to be added to the list of issues on which special studies are to be undertaken. We could call it: "The axiomatic foundation

of national accounting". It should answer the question: What are the elements which we try to observe and measure in our accounting system?

At issue are the fundamental concepts of "transactions," "transactors" and "flows." The traditional answer is, of course, that "a transaction is something which gives rise to a payment"; what we measure are "payment flows" or, more precisely, "flows of payables." Such flows are sometimes "imputed flows." They normally take place between two "transactors" and are recorded as a "payable" at one end and as a "receivable" at the other.

I have never been entirely happy with this approach. For instance, I like to think of the entries in an input-output table as in some way representing commodities, not "payables." The construct of "imputed payables" is definitely not an attractive one. And finally, there is the problem of attaching meaning to balancing items such as "product," "saving" or "export surplus." Such items are clearly not "flows of payables" in any ordinary sense. If not, what are they?

There are ideas around from which perhaps a more attractive conceptual framework might be derived. I shall mention two:

(i) One idea, which in Norwegian tradition dates back to work on national accounting by Ragnar Frisch during the 1930's, is to start with the concept of "an economic object." What we observe, in this approach, are economic objects and things that happen to economic objects. A distinction is made between "real objects" (goods and services) and "financial objects" ("means of payments" and "claims" of all kinds). A "transaction" is defined as something which happens to an economic object. For instance, a real object can be produced, consumed, given away free, or sold. If given away free, we would be faced with a "real transfer." If sold, we would be faced with two "requited" transactions: a real object flowing from the seller to the buyer and a financial object flowing in the opposite direction. A recording of this phenomenon would in principle require four entries in our book keeping system: one "real" and one "financial" entry in the accounts of each of the two units carrying out the operation. Transactions are aggregated into flows. Next, we introduce prices (current or base-year) assuming that each object has a known "price-tag" attached to it. We are now able to clarify the important distinction between "flows" and "balancing items." A flow (such as "exports" or "imports") can be defined in a logical sense as a class ("basket") of objects. No reference to prices is needed. In contrast, a balancing item, such as "export surplus," cannot be defined in this way. The reason is that it makes no sense in logic to deduct "a basket of imports" from "a basket of exports." However, with prices given you can estimate the *value* of exports and the *value* of imports and compute the *algebraic* difference between the two.

(ii) Another promising idea has been put forward recently by Utz-Peter Reich. In the present SNA it is assumed, by way of postulate, that a transaction always involves exactly two parties. Reich points out that this is not always the case in the real world: Consider a visit to a medical doctor. The service rendered is always from the doctor to the patient. The payment for the service, however, may come, wholly or in part, from some third party. The situation is similar when elements of private consumption are paid for by an employer for his employees.

Most of the ideas just referred to are reflected in papers before this conference. For instance, Heinrich Lützel, in a paper also included in this issue of the *Review*, confesses that he has not fully understood the transactor/transaction principle. The paper by Milot and Teillet includes a section called “a critical review of the overall accounting set-up.” I find viewpoints here which are very similar to those which have dominated Norwegian thinking over the years—including the idea that four entries are needed in principle to record required transactions. Chantraine and Newson have a long section where they endorse Reich’s idea about “tryadic” relationships (transactions involving three economic units).

There is a presumption that the SNA would look different if it were to incorporate some of these ideas. For this reason I would like the Inter-Secretariat Working Group to consider hiring a consultant to have a fresh look at what I have called “the axiomatic foundation” of national accounting. The outcome of such an exercise presumably would not influence the *content* of the system in any fundamental way. It might, however, contribute towards making possible a clearer *presentation*.

II. ON THE PURPOSES OF NATIONAL ACCOUNTING

Much has happened since the first attempts were made during the late 1940’s to standardize national accounting practice. Since I have been in on most of this, it may be helpful if I say a few words on one particular aspect of these developments. What I have in mind is our changing views over time on the purposes which the national accounts are to serve.

In the early days it was taken more or less for granted that a national accounting system could serve all conceivable purposes if only it was made detailed and flexible enough. This changed with Ingvar Ohlsson’s doctoral thesis in 1953. Ohlsson listed a number of purposes which the national accounts would have to serve, including (in his terminology):

- (i) Statements of results (by which he meant measurement of production and welfare).
- (ii) Income behaviour and business cycle analysis.
- (iii) Structural analysis.

He argued convincingly that these purposes were in conflict with each other in the sense that they called for different solutions in the national accounts. In view of today’s discussion of “core” and “satellite” accounts and all that, it is interesting to note that all these ideas were anticipated by Ohlsson in his conclusions 30 years ago. The national accountant, said Ohlsson, had three options:

- (i) He might construct different national accounts systems for different purposes.
- (ii) He could construct a general purpose system from which the special purpose system could be extracted.
- (iii) He might construct one special purpose system (a “core”?), together with a list of corrections for those items for which different treatment was required for different purposes.

Ingvar Ohlsson’s study came too late to influence the first standardized accounts of OEEC and UN. Both these systems were overwhelmingly directed

towards what Ohlsson later termed "measurement of results": the correct measurement of product and welfare. In this light we must see the many imputations in the system, the discussion of the production boundary, and the treatment of, e.g., the banking sector, life insurance and pension funds.

In the SNA revision of 1968 correct "measurement of results" remained the single most important purpose. However, room was also given to other considerations. An important step in the direction of what Ohlsson called "structural analysis" was taken by making input-output statistics part of the system. Attempts were made to serve the data needs of behaviour and business cycle analysis by introducing the dual functional-institutional sectoring of the system and by increased attention given to income and capital accounts. However, we were still faced with *one* system intended to serve manifold purposes.

A study of the papers in this conference shows that a change is taking place as regards the purposes which the next SNA are to serve. I have noted four such trends.

(i) First, there is a strong request for making the "SNA double revised" more compatible with different internationally standardized systems, notably those of IMF. Whereas traditionally the weight was on achieving international comparability of the main aggregates such as GDP much more attention is now being paid to comparability *in detail*, i.e. in individual flows. With the advent of international political groupings such as EEC this is understandable and a legitimate request.

(ii) Second, we are facing a number of proposals for re-definition of old concepts, or for giving new concepts a place in the system side by side with old ones. Notable examples are proposals to broaden the concept of capital to include consumers' durables, and a variety of proposals relating to imputations.

(iii) Third, there are proposals for integrating micro- and macro-data and for developing the national accounting system in the direction of a general information system.

(iv) Finally, perhaps somewhat surprisingly, there are authors who are willing to sacrifice perfection (theoretically ideal definitions) in the interest of statistical feasibility. Carson and Tice have a paper entitled "Pragmatism versus Elegance." They are not alone, however. I find arguments in the same direction in the papers by Saunders, by Rushbrook and Wells, and by Levin and van Tongeren. feasibility. Carson and Tice have a paper entitled "Pragmatism versus Elegance." They are not alone, however. I find arguments in the same direction in the papers by Saunders, by Rushbrook and Wells, and by Levin and van Tongeren.

To this list I would like to add one request of my own: Keep the system so simple that the non-specialist user can understand it—at least in aggregated form. This implies two things: (i) we should keep our definitional equations as simple as possible, and (ii) we should avoid confusing the reader by including in the system a number of concepts which are *nearly* identical, but not quite so.

III. CONCLUSION

Where does all this lead us? I do not know. In the interest of flexibility we shall probably end up with something along the lines of the Dutch "core accounts"

and “building blocks” or—perhaps more realistically—the French “central framework” and “satellite accounts.” However, in searching for improvements don’t let us forget that the present SNA has, after all, served us well as a general purpose system. Remember also that Statistical Offices in most cases work with strictly limited resources. They may well find it more important to improve the quality of what they already have than to extend their system in directions called for by some particular analytical need.

3. UMA DATTA ROY CHOUDHURY

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The paper under discussion makes a comprehensive review of the progress made so far on the development of the System of National Accounts and its harmonization with other related statistical systems like Input-Output, Distribution of Household Income and External Trade. Different aspects of the subject, viz., organization of the work, proposed expert group meetings and consolidated work programmes are discussed in different sections of the paper thus giving a clear picture of the coordinated effort being made to obtain the final revised version of the SNA by 1990.

I have been requested to examine the problem from the point of view of the developing countries. Before going into these details it will be useful to point out one very basic difference in the situation of the statistically advanced countries and the developing countries with respect to the SNA and its implementation. For countries where estimates of national income had already been prepared for some time when the system of National Accounts was introduced by the UN, the question was one of making changes in their own systems which had already been evolved and were in use. Thus it was a question of modification and adaptation and the exercise was not of primary importance and it did not hamper their regular programme of work. Thus even today we have the French System and the European System of Accounts besides different systems being used in the U.S.A. and other countries. For most of the developing countries, on the other hand, when the work on preparation of National Accounts was initiated or formalized the framework of the UN System of National Accounts was already available (the original UN System of National Accounts and Supporting Tables was published in 1953) and was expected to be used as the standard guide. The understanding of the SNA, its interpretation and implementation are therefore of primary importance for these countries. The applicability of the System to the special situations of these countries and revisions required to make it so therefore become important points for consideration.

I can say from my experience in national income work in Asia and Africa that the understanding and implementation of the SNA in its totality is not easy and raises several problems of interpretation of the concepts leading to problems of measurement. Thus for example, the production boundary, the coverage of the household sector, the definition of the informal sector and the measurement of its activity are all important questions to be resolved if the estimates of national

income in these countries are to be realistic. These are questions faced by the developing countries all the time in the course of their estimation work. Some of the countries have attempted to resolve the problems in their own way while others have either left them unresolved or ignored them. It is very gratifying to note that the UN Statistical Office has now recognized most of these problems and is considering the question of resolving such problems and clarifying the concepts etc. so that these countries would be able to act more positively when such problems arise and also the SNA as a whole becomes a more useful system for the developing countries.

Coming back to the paper by Mr Kurabayashi, where developments of the SNA in different directions have been listed, the points can broadly be classified into four groups viz.,

- (1) clarification and simplification of the System,
- (2) modification of the System,
- (3) harmonization of the System of National Accounts with other related Systems, and finally
- (4) extension of the System to cover aspects not considered so far.

The more important of the aspects which could be classified under each of these categories are:

(1) *Clarification and simplification* of institutional sector classification particularly between public, private and non-profit-making bodies, incorporated and unincorporated, general government and departmental enterprises, the informal sector and the definition, coverage and statistical measurement of services output and value added.

(2) *Modifications of the system* which are being considered cover a number of aspects which in the past have been found to be difficult to implement. The most important of these aspects of modification is the introduction of greater flexibility within the SNA by the introduction of "core accounts" and "building blocks" or by providing for complete accounts including production accounts and balance sheets for all institutional sectors thus modifying the present SNA with respect to the classifications in terms of establishments and institutional units and in particular enterprise units. Another major aspect of modification being considered is a dual breakdown of consumption by sector incurring the expenditure and by type of consumption (individual and collective) and corresponding changes in income concepts, to the extent necessary. A few of the other items where modifications are being thought of are treatment of subsidies, pensions and life insurance transactions, interest and imputed bank service charges.

(3) *Harmonization* of the SNA with several other related systems such as the public sector accounts, functions of government, balance of payment transactions, household sector accounts and income distribution guidelines, financial flows and money and banking statistics, national and sectoral balance sheets, and financial assets and liabilities, input-output standards and classifications and finally the MPS with the object of bringing them closer to SNA conceptually.

(4) *Extensions* of the SNA which are currently being actively considered cover all aspects of deflation such as the use of chain indices in national accounts, purchasing power parities and deflation in time and space, inflation accounting,

financial leasing, and measurement of terms of trade and its effect on real national disposable income; preparation of regional accounts and quarterly accounts; measurement of subsoil assets and its incorporation into the accounting framework; and finally establishing a link between macro and micro data in a manner which will establish the national accountant's role in coordinating basic statistics besides expediting their collection.

All the aspects covered in the above programme of development of the SNA are to some extent linked and have to be covered at different stages of the work. However from the point of view of the developing countries it would be helpful if some of these get greater priority over the rest. Thus though all clarifications and simplifications with respect to institutional sector classification will facilitate the work very much in the developing countries the particular decisions to transfer departmental enterprises to the enterprise sector or to combine unincorporated and incorporated enterprises and treat all enterprises together leaving the household sector to households only will not only make national accounts more meaningful for developing countries but would also make the comparisons with the developing countries more meaningful. However the definition and coverage of the informal sector should receive priority over other items and its scope in relation to the subsistence economy or the small scale household industries or the monetised sector of the economy must be defined carefully in the context of the production boundary of the SNA. Also, the informal sector should in no way be linked with the underground economy or illegal production, none of which have a direct relationship with the informal sector. Production within the informal sector is an integral part of the productive system of the developing countries and the main issue is that of covering the production in the informal sector within the national accounts and its importance for the developing countries.

In this context it might be important to mention that the exclusion of the informal sector for a country like India would not only reduce the current levels of gross domestic product substantially but would not present the complete picture. It is possible that for many of the countries in Africa the coverage of these activities will present a different and true level of national income and per capita income.

The suggestions regarding the "core accounts" and "building block" approach become relevant in this context. The current SNA has three divisions to its set of tables and accounts and has enough scope for adaptability. In this respect I think we can more or less agree with the conclusion in the paper. However the section makes two very important points which need consideration. Firstly, should the core accounts be restricted to market transactions only or should they have an expanded production boundary? Secondly should we consider modification of the income and outlay accounts for a fully articulated system of institutionally sectorised accounts? From the point of view of developing countries restricting core accounts to market transactions only will certainly not be desirable. On the other hand expanding the production boundary to include the informal sector which is well defined and covers all subsistence production and small scale establishments will give a better picture for international comparison. In India, to the extent data are available, an attempt is made to cover all economic activities both in formal and informal sectors where the informal

sector covers all subsistence production (except that which is confined within households in general, and housewives services in particular). All establishments which have formal annual profit and loss accounts are defined to be in the formal sector while those without accounts are in the informal sector. Thus total agriculture is in informal sector while only a very small proportion of financial institutions (financial intermediaries who do business in lending money generally under mortgage conditions at very heavy rate of interest) are in the informal sector. In the case of Zimbabwe on the other hand, the major part of agriculture in commercial farms is in the formal sector while communal farming in rural areas should be informal. Financial institutions in the case of this country have no informal sector according to current level of data availability.

Another aspect which requires clarification in this context is a clear definition of the subsistence economy and its measurement in the context of national accounts of developing countries. As I understand it, and what we follow in India, "the subsistence economy" is distinct from the informal sector and also from the "self-service economy". "Subsistence economy" refers to economic activities which rightfully fall within the production boundary and should therefore be incorporated in the main aggregates of the SNA though often they are non-monetized in character. The subsistence economy is therefore part of the informal sector but not equivalent to it. The self-service economy, on the other hand, is more equivalent to the household sector and housewives' services and should be treated differently from the subsistence economy or the informal sector. All this only emphasizes the point that for developing countries conceptual clarification of these measures and their proper incorporation within the SNA is essential.

A different problem, which is of special interest to the developing countries, is the harmonization of the SNA with the concepts and measures in household accounts and household income distribution. "Household" in this case should preferably refer to households as consumers so that the accounts become more meaningful and also internationally comparable. Also, the main aggregates in the accounts should not only harmonize, to the extent possible, with the corresponding measures in the SNA but should be well defined and amenable to estimation using household survey data. For these countries, it is also necessary to ensure that the household survey data can be incorporated into the national accounts compilation process so that the reliability of the estimates is gradually improved. However, the concepts of "income" to be used for measuring household income through survey data and also for harmonizing between SNA and household income distribution should not result in sacrificing concepts like "available income" and "disposable income" which are meaningful and relevant for policy purposes. However it is essential to clarify and standardize the treatment of insurance contributions and benefits etc. so that the treatment in SNA is consistent with that in household income.

Lastly it is important to review the treatment of "imputed bank charges" and similar other transactions so that the transactions become consistent particularly in the Input-Output Table. In the I-O table for India treatment of interest and inputed bank charges is according to what is being suggested now, i.e. final consumer expenditure has a component of bank charges.

Though there are many more points of detail which could be discussed, these are not being referred to now because I feel the changes in such cases which are being suggested are generally acceptable.