

## REMARKS ON THE DIRECTION OF THE DEVELOPMENT OF NATIONAL ACCOUNTS AND BALANCES

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In the papers presented to the 14th IARIW Conference and in the discussions carried on elsewhere, the national accounts and balances are often criticized as failing to measure economic and social performance in that they are not sufficiently welfare oriented. Drastic restructuring of the national accounts has been proposed by several authors which, in their opinion, will improve methods of appraising performance and give more correct indications of changes in welfare.

The critics challenge the concepts of national product or income as a goal of national effort and believe that changes in definitions should be introduced or new concepts invented which would measure such changes in production as are destined to the growth of welfare only (increase of goods desired by the subjects). They should, unlike GDP, allow for the disamenities associated with industrial growth, particularly damage to the environment and its consequences for present and future human happiness; for expenditures which are regrettable necessities rather than consumption; and for changes in leisure time. At the same time the critics advocate the inclusion of non-market productive activities carried on in households in the concept of production. The problem of inequalities in the distribution of income should also be accounted for in evaluating the performance of the economy.

The economists defending the present conceptual framework of national accounts draw attention mainly to practical difficulties of constructing measures of welfare to quantify what cannot be quantified, to value what cannot be valued. They admit, nevertheless, that some changes in national accounts could and should be made to render them more welfare oriented and, as G. Jaszi who may be regarded as one of the eminent economists who are opposed to far-reaching changes in national accounts stated, the national accountant should "steer his ship firmly between the two extremes".

In the discussion there is not, to my mind, sharp enough distinction between two different problems: "whether it is right in theory or not right in theory" and "whether it is feasible or not feasible to make meaningful estimates". If the answer to the first question is yes, then the answer to the second question has to be sought, but there should always be a clear idea about the former.

Let us start with a fundamental question as to the aim for which national accounts and balances are compiled and the conceptual identity between the purpose of final results of production and that of welfare.

If the production process is defined as "the use of scarce alternatively applicable means for the satisfaction of classifiable wants" it does not immediately follow that the final result of production is exclusively directed to the increase of

\*The opinions expressed in this note are those of the author and do not necessarily reflect those of the ECE secretariat.

the satisfaction of wants. The process of production treated as a macro-economic concept directed, in principle, to the satisfaction of human needs creates, and has always created in history, desired and undesired effects. Furthermore, certain satisfactions of needs cannot be regarded as increasing the welfare of humanity. Some economists, to which group I myself adhere, would consider that disarmament rather than increased armament brings a feeling of security, others regard tobacco consumption as evil rather than good and still others, excessive consumption of alcohol, etc.

I believe in a sharp distinction between a measure which quantifies the changes in the volume of production understood as volume of social labour expended (present and past) or, using SNA terminology, volume of factors of production used in production, on the one hand, and changes in welfare resulting from that production and secondary phenomena connected with it, on the other. The same change in the volume of production brings in different historical, geographical and socio-economic conditions a different increase in welfare which may be more or less proportional to the increase of production. It may be noted in passing that in the present world situation we witness rapidly declining relations between the growth of production and the growth of welfare.

The present SNA approach could tentatively be called a market approach. Production boundaries are defined by the market and imputations are limited to a few most outstanding situations for which it is thought they are indispensable for the needs of current analysis and decision-making. The imputations are, in principle, restricted to production which is consumed or accumulated by units under the same ownership (banking imputations are the major exception). In all other instances market transactions are recorded.

In this system intermediate input can be defined as the value of commodities purchased by transactors and used in production. Final expenditure equals the value of commodities and other services (a) which have been purchased (including imputations) by transactors and not used for production purposes this year, (b) which have not been purchased by any particular transactor.

In practical compilations several statistical conventions have to be followed (distinctions between current and capital repairs, between services and transfers, etc.). The very important convention from the point of view of the problems discussed here is that the expression "used in production" is to be interpreted as "included in the costs of production".

In the existing system classification of transactions is based not on the physical aspects of commodities or their place of "physical" utilization, but on their market relations. The same product or service used for the same purpose is thus treated differently if the market mechanism indicates such a difference. The above has been said to point out that the present system has its own logic which should not be destroyed by the introduction of partial changes based on another logic.<sup>1</sup>

<sup>1</sup>The changes in the existing system which I believe should be recommended relate to the introduction of additional classifications of intermediate inputs, final expenditure and capital formation by purpose. They should give a basis for additional analytical recalculation of national accounts data according to different needs of economic analysis. It has to be recognized that practical possibilities of implementation will be heavily limited especially for capital formation expenditures (multi-purpose capital formation).

In this connexion, for example, the proposition to treat anti-pollution expenditure of both enterprises and government in the same way, i.e. either as intermediate input or as final expenditure, is—for me—against the existing logic of the system. Besides, if this is done, similar procedures should be adopted for the expenditures of industries accruing to households and for several types of general government expenditures.

Thus, generally speaking, I have some doubts if it would be a fruitful approach in practice to extend the SNA to such a system in which “the existing national income accounts form a core of the system; the extensions are added as supplementary data” as is proposed by R. and N. Ruggles. Several SNA conventions and the general philosophy of the system do not allow for such changes as are necessary for another type of economic analysis which under the present conditions has to be developed for multiple policy purposes, that is the “non-market analysis” and especially welfare oriented ones. The changes cannot be limited to the additions of non-market activities and balance sheets but will result in substantial restructuring of the national accounts.

What seems to be necessary is the elaboration of another separate set of data based on a fundamentally different approach, linked only to the present SNA (or MPS). The two approaches in question should not be regarded as contradictory; they are complementary since each of them is to allow for answers relating to different questions. Links between them are necessary above all to study the interrelations between the market mechanism and structural changes in the economy as well as of welfare policy.

While I have called the SNA approach “market approach”, the other approach to be developed could be called the “actual flow approach”, or the “physical approach”. This approach would result above all in the provision of the more comprehensive information necessary for analysis concerning utilization of resources, for all structural studies, input-output relations, studies of the consumption pattern and of some aspects of welfare. According to it intermediate input should be defined as the value of products and services actually used for current production purposes by the unit in question independently from the source of finance and existing cost calculations, final consumption as actual consumption in a given period of time by households, capital formation as actual accumulation of tangible and intangible producer goods and services and consumer durables in productive units (industries, producers of government and non-profit services) and in households independently of the source of finance, since the distinction between consumption and capital formation should be the distinction between resources devoted to current and future needs. The boundaries of production should be drawn in such a way as to include (impute) all actual important non-market activities.<sup>2</sup> It should be noted, however, that leisure time is often mixed very closely with non-market economic activity.<sup>3</sup>

<sup>2</sup>These imputations relate mainly to households but in theory not only to them: one could also think about imputations relating to defence activities (labour input of conscripted soldiers), to certain services which are rendered free of charge or at a reduced price to specific consumers (e.g. free railway tickets for railway employees).

<sup>3</sup>Dangers of the overestimation of household services should be noted in this connexion especially in the field of education (teaching of children by parents is often a great pleasure and relaxing for them) and of agricultural activities (work in the garden results not only in growing fruit and vegetables but is often one of the most pleasant forms of relaxation).

In practical implementation, conventions based on subjective judgment and rough estimates will have to be used to a much greater extent here than in the case of the present SNA (or MPS) since it is not feasible to find a firm definition of actual input or actual consumption. This smaller reliability is the reason why one should try rather to incorporate all estimates concerning problems of environmental damage in this set of data.

It should be noted that in this approach, as very generally presented, there is, in principle, no place for general government as a final consumption unit. The final consumption financed by government has to be completely split up among those units which actually use goods and services (industries, households). An alternative solution would be that some government expenditure of a general character be treated either (i) as general costs of the socio-political system and deducted from the sum of value added without a breakdown by branches, in the same way as the value of financial services is deducted now in SNA, or (ii) as losses of the product (personally I should be inclined to treat defence expenditure as losses, general administration and similar expenditure as general costs debited conventionally to industries; this is, of course, a very subjective judgement but several judgements of similarly subjective character will have to be made if extensive imputations are to be introduced).

The subjective character of estimates and low accuracy of data inclines one to think that the set of data in question should be compiled not every year but, say, every five years. Fortunately the very character of the information makes it suitable rather for long-term analysis where there is no need for current estimates.

The approach described above is rather well suited for analysis of the allocation of resources. Certain basic reservations related to analysis of productivity should be stressed since in non-market activities input measures for the time being will have to be used in the majority of cases as approximate measures of output. Thus, analysis of productivity will have to be restricted, in principle, to production directed to the market where proper output measures can be used. More complex information on inputs connected with this production will, however, be secured by the new approach.

Finally, it would seem that data compiled according to the "physical approach" concept could give a better starting point for welfare oriented analysis. Nevertheless, this information should not be regarded as sufficient for complex analysis in this field and for measuring changes in welfare.

In such analysis it seems indispensable to use not only value indicators but also certain other indicators. It may be questioned if there is a real need for a single aggregated index measuring welfare. It should be noted that even in the traditional field of national accounts there is a decreasing demand from the users for information on GDP as one single indicator. A set of co-ordinated data is rather necessary for decision-making.

In analysing the welfare situation one of the possible solutions feasible in practice may consist of distinguishing several fields<sup>4</sup> of human need and then attempting to find measures describing the situation in each field separately.<sup>5</sup>

<sup>4,5</sup>Footnotes on following page.

Great flexibility seems to be needed and uniform methods by which different fields are to be characterized should not be developed. In several cases but certainly not in all, it will be possible perhaps to set certain standards, similar to the minimum income level concept, and compare the actual with the standard situation (estimating the “distance from the standard”). Those standards should be very carefully selected and be of “similar level of ambition” in each field. Comparisons could be based on several types of core indicators which should be chosen with a minimum of subjectivity or by evaluating the necessary undertakings to achieve such standards (the necessary total costs needed to create conditions and facilities accessible to society, securing the desired standard of the satisfaction of needs). This is a rather pragmatic approach, but may be helpful in practice in the preparation of programmes aiming at the improvement of the conditions of life. The relative change in time of the resources needed to achieve the desired standards would give some indication of progress or lack of progress.

It may be noted, finally, that an alternative approach which could give evaluation of welfare phenomena from another angle is based on methods dealing with subjective elements of well-being (individuals are questioned about various aspects of living conditions and how well-off they believe themselves to be). These methods could be used parallel with, or supplementary to, the so-called “objective methods” (impersonal) and exclusively in the fields for which “objective” measurement is not feasible at all.

<sup>4</sup>The author has proposed 12 different broadly understood fields of main human needs which are similar to the fields listed in the UN draft guidelines on social indicators.\*

*The author's tentative propositions*

- I. Nutrition
- II. Health
- III. Education
- IV. Housing and environment in the place of life
- V. Recreation and related environment
- VI. Culture
- VII. Employment and working conditions
- VIII. Social security
- IX. Public order and safety
- X. Distribution of income, consumption and wealth
- XI. Social stratification and mobility
- XII. Family and sex

*UN recommendations*

- I. Population
- II. Learning and educational services
- III. Earning activities and the employment services
- IV. Distribution of income, consumption and net worth
- V. Social security and welfare
- VI. Health and health services
- VII. Housing and its environment
- VIII. Public order and safety
- IX. The allocation of time and the use of leisure
- X. Social stratification and mobility

\*United Nations, Draft Guidelines on Social Indicators, E/CN. 3/488, April 1976.

<sup>5</sup>This type of approach was applied (in 1966) by Drewnowski and W. Scott in the studies on “The Level of Living Index” (UN Research Institute for Social Development); the authors weighted indices calculated for different fields to get finally one index. Their methods of calculation of individual indices and methods of weighting can be criticized as extremely subjective.