

Harmonisation of national accounts: form and substance

BRIAN NEWSON*

INTRODUCTION

This paper will tackle briefly three aspects of harmonisation of national accounts: firstly the harmonisation in theory, with the recently completed revision of SNA; secondly actual comparability in practice drawing on experience within the European Union; and lastly I will add a few philosophical thoughts about the meaning of certain aggregates when their values are expressed in market prices.

THE SNA 1993¹

The System of National Accounts 1993 has just recently been published. This represents the culmination of a ten-year process of studies and consultations at European, OECD and world-wide levels involving directly experts from 40 countries and indirectly many many more through regional meetings. Never has a statistical standard been so thoroughly reviewed and discussed, or the subject of so much consultation.

The SNA is the premier world statistical standard and its Introduction claims the publication of the new System represents the biggest event in official statistics for the last 25 years and this is probably true in a number of ways.

The former SNA had been in use since 1968. Since the first 1947 version the coverage had expanded rapidly from the original six countries, to the whole OECD, all developing countries and recently the former centrally-planned economies too. The revised version therefore draws on over 40 years broadly-based experience, it has been tested and has proved its worth. The new SNA is an evolution from this solid base.

SNA is the premier statistical system adopted by virtually every country in the world as the basis of the national accounts and therefore of its economic analysis, forecasting and policy formulation. In addition the SNA influences international methodological recommendations in basic statistics and, within countries, the needs of national accounts influence collection of basic statistics. SNA is therefore both an international and a national system.

* Office statistique des communautés européennes, Bâtiment Jean Monnet, Rue Alcide De Gaspari, L-2920 Luxembourg

1. "System of National Accounts 1993" UN/OECD/Eurostat/IMF/World Bank available in Switzerland from OSEC, Stampfenbachstrasse 85, CH-8035 Zürich.

Managing the revision process was a joint collaboration effort of five international organisations the UN, OECD, Eurostat, IMF and the World Bank. While their role was primarily one of organisation, they also contributed substantially to the discussions, the preparation of documents and so on. The five organisations have sometimes different objectives and indeed working styles, but brought to this common project a considerable dedication. In the foreword to the SNA signed by the Heads of the 5 participating organisations it was hailed as “a model for future collaborative work on the development of improved statistical systems and standards”.

So, what is new in the ‘new’ SNA?

One of the objectives set by the UN Statistical Commission was the removal of differences between 1968 SNA and related statistical systems – a source of inconvenience to producers and users and a severe limitation on international comparisons of macro-economic data. This objective was very largely achieved. The new SNA and the new 5th IMF Balance of Payments Manual published within a couple of months of each other are (almost) totally compatible; work is also in hand in the IMF on a new system of Government Finance Statistics. At the same time Eurostat and the countries of the European Economic Area are revising the ESA (European System of integrated economic Accounts) to be consistent with SNA but to deal with certain specificities of this group of countries more clearly than could be done in a world-level system. One of the most irritating sources of difference – the difference between the 1970 NACE and ISIC – had already been removed through the UN/Eurostat sponsored revision of ISIC finished in 1989.

The new SNA also had to take account of new economic phenomena that emerged since 1968. These are typically rather detailed issues like VAT, financial leasing, increased importance and complexity of social protection and pension plans, new financial instruments, the measurement of inflation and of its effects on income through holding gains and losses². Though individually not always very significant, they add up to a fairly substantially revision.

The revision was also the opportunity to incorporate the results of work done in the 1970’s and 1980’s and published in the United Nations methods series: most notable were the manuals on accounts at constant prices and on balance sheets. The new SNA fully incorporates balance sheets, integrating stocks of assets, transactions in the period, price changes and other volume changes. The assets boundary was clarified and extended to include all assets that are economic assets: ie. that can bring economic benefits to their owners either as regular income or through selling them. This therefore includes a

2. A complete description of new features is given in Annex I of the SNA, “Changes from the 1968 SNA”.

number of categories of natural assets, including for instance land, forests and sub-soil assets, but not those assets we all share such as clean air, climate or oceans.

This inclusion of economic natural assets and their depletion and degradation in the other change in volume of assets accounts was felt by the national accounts experts to be as far as they could go in the direction of environmental accounting at this stage, in particular calculation of adjusted national accounts aggregates ('Green GDP') reduced by the effects of man's activity on the environment was felt not to be possible given the present state of knowledge. However, a special chapter on satellite accounts shows how this might be done and this certainly represents a major research area for further development in the coming years.

COMPARABILITY IN PRACTICE WITHIN EUROPE

While the world-level SNA gives the basic concepts and rules for structuring and compiling national accounts, some further guidance or specification may be necessary in some regions and this is the main function of the ESA. At world level, economies and the analysis of economies become ever more international. An important characteristic of all macroeconomic issues and public debate about them is that they are always expressed in numerical terms, more specifically through the main statistical aggregates from national accounts: GDP growth, inflation, government deficit, unemployment, etc. Within the European Union and the European Economic Area macroeconomic policy decisions will increasingly need to be coordinated and indeed to be negotiated. For this, the Community Institutions (particularly the Commission and the European Parliament) need data and the Member States need reliable and comparable data on each other.

Despite the present political difficulties (which I hope are temporary) between the European Union and Switzerland, the needs for Switzerland to compare its economy with that of neighbouring countries plead strongly for application of ESA by Switzerland.

Traditional macro-economic analysis will gain increasing importance in achieving and managing Economic and Monetary Union. Another feature of recent developments in the European Union is the institutionalised use of national accounts data for administrative and budgetary purposes. The GNP has been used for several years as the basis of the so-called Fourth Resource of the budget and more will be said of that below. The ESA is cited in the Protocol to the Union Treaty (Maastricht) itself on the avoidance of excessive government debt and deficit, as a precondition for achieving Economic and Monetary Union. To ensure a sufficiently high level of comparability for this operational and potentially high-profile and sensitive use of national accounts, Eurostat and the Member States are involved in intensive analysis of exactly what is included in the sector of general government in the countries, which assets and liabilities are shown and how are they valued. To give just one example the Dutch government employees have a pension fund that actually is a fund contrary to most countries' government employees whose pensions are non-contributory and paid as necessary out of general government

current revenue. To include the assets and liabilities of this employer-sponsored pension fund in the employer's (i.e. government) sector or among private-sector pension funds makes a not inconsiderable difference to the levels of government debt. It appears in fact it will probably be decided to treat this pension fund in the pension fund sector.

So, harmonisation of concepts is achieved by following SNA and ESA and the actual application of the concepts is closely monitored, but this may not be sufficient if countries' procedures for measuring the values of those concepts are defective. Several countries have engaged in some fairly substantial upward revisions of the level of their GNP. Italy for example carried out a revision of about 9% at the end of the 1970s prompted essentially by an improved use of available statistics, in particular a balancing of supply and use of products at a fairly detailed level that revealed fairly considerable gaps which had earlier passed undetected because they cancelled out in the main aggregates. Later in the mid to late 1980s Italy adopted a new procedure to allow for the 'hidden economy' (i.e. economic activity not adequately captured by statistical enquiries) using employment data. This resulted in a further 16% increase in the level of GDP and GNP.

The national accounts aim to be complete in their coverage of economic activity, while a number of basic statistical enquiries deliberately limit their coverage, for instance to enterprises having more than 20 employees or by excluding certain activities or categories difficult or costly to measure statistically. Use of GNP as a basis for the calculation of the so-called fourth resource of the European Union's budget has led Eurostat and the Member States to examine more closely the genuine level of coverage and comparability of the GNP. The first stage was an exhaustive inventory of sources and methods used which runs to hundreds of pages for some countries. Close attention was paid to strict application of ESA rules and some countries were obliged to modify their data, though usually only slightly.

Compiling the national accounts makes use of a wide range of data from statistical enquiries, and from administrative sources. Which sources are most complete and reliable varies from one country to another. National statistical offices therefore have developed different procedures to make best use of what they have and it would not be appropriate to impose common methods. GDP of course can be calculated from the three routes (output, expenditure and income) and the relative importance of these and the ways the possibly conflicting results are reconciled differ from one country to another.

An early and important conclusion of GNP work was that different routes from different basic sources may actually be the best way to achieve comparable valuations of the concepts of ESA.

The existence of the inventories forced countries to review their own methods and learn from the methods of others. In particular by balancing commodity accounts at a detailed level substantial unrecorded activity was revealed.

Improvements in methods of compiling the national accounts have already produced upward revisions of 17% in Greece, 10% in Portugal, 8% in Luxembourg, 4% in Ireland, etc. It should be noted that Greece and Portugal for example have a high proportion of

small businesses in rural or tourist activities that are extremely difficult to cover statistically. In Luxembourg too most of the increase was in service industries.

Such an examination of the *actual* comparability of a set of data is unprecedented in the history of statistics and will ensure major improvements in the reliability of macro-economic data generally.

THE ANALYTICAL DILEMMA

Despite these major efforts in the direction of comparability, there is however in my view perhaps a conflict that deserves to be further explored in future work in this area. The System records first and foremost transactions that actually occur in the economy. A basic tenet of interpreting the accounts in an economic sense is that in markets buyers and sellers meet and fix a price that, *inter alia*, reflects the utilities the goods and services represent. The market price determines the economic behaviour of the producer and the consumer in well-known ways. However, some economic activity does not give rise to actual transactions and national accountants *impute* transactions or values for transactions whose price is not fixed by markets.

Over time and particularly between countries there are changes in the extent to which particular types of economic activity result in actual transactions. Generating data that is comparable despite these differences – sometimes called ‘institutionally invariant’ – tends to imply increasing the number of imputations, but do the resulting aggregates then measure the economic variables on which individual economic agents base their decisions? A number of cases arose in the course of the revision process that illustrate this dilemma .

For instance in a number of countries in Europe – and even more in less developed countries – governments intervene in the provision of certain socially-desirable services such as education and health; either through producing the services themselves and distributing them free or by the social security reimbursing prior expenditure by households. To accomodate this the new SNA recognises two concepts of consumption for households: (i) the expenditure they bear and (ii) their actual consumption including both free and reimbursed goods and services.

However governments also intervene by paying subsidies, that are sometimes sizeable, to market producers to reduce the market price of goods and services sold to the whole population or to certain segments of the population. What then is the appropriate valuation in the national accounts (and indeed other statistics) of such products: the price paid by the household or the full cost of production? It appears society has decided these products are of high value but shall be sold at a lower price. In this instance, the SNA expert group felt unable to recommend recording at the full cost of production as this represented an “unjustified manipulation of market prices” and opens the door to a large number of other cases.

The national accounts (and statistics generally) are attempting to chart a course between conflicting requirements: between measuring what actually happens and reflecting different phenomena with essentially the same effects; between recording actual money payments and recording resource flows at some other societally “better” valuation.

Another example relates to costs of mineral exploration. These costs have some characteristics of capital formation in that the knowledge of the presence of oil at certain spots serves the production process well beyond the year in which the exploration was carried out. Some oil companies do capitalize these expenses in their own accounts and reflecting in national accounts the variables on which economic agents base their decisions pleads for including mineral exploration as capital not current costs in SNA. Other oil companies are more prudent, recognising that exploration might be unsuccessful in finding oil, and treat exploration costs as current costs. Should one then treat these two companies differently in the accounts, or the same way?

Other well-known examples include tax relief that has an effect similar to subsidies if granted to enterprises or to social benefits for households.

Actual transactions at market prices have the advantage of being directly observable and reflecting at least the major factor on which economic agents base their decisions.

However sometimes the actual transaction can be misleading. For example in times of inflation, interest rates and payments are typically high and include an element of compensation for lenders for the loss of the value of their capital during the period. In economic terms compensation of the capital loss should not be current income and probably lenders do not see it as such either. The new SNA therefore recommends in such cases showing interest receipts *net* of inflationary holding losses.

As a last example, consider the case of a general state pension scheme for the whole population for which no fund exists but pensions are paid each year from current revenue. There is no fund and so no financial claim recognised in SNA's balance sheets, yet households' other savings behaviour is undoubtedly influenced by the existence of this, moral or legal, claim. Without it they would invest more in private pensions funds.

Every time such a problem occurs the system has to make acceptable, considered, reasoned choices between alternatives. One of the advantages of the 1993 SNA is that throughout it attempts, much more than in the past, to present the rationale behind the choices made.

It is conceivable that in the future we should distinguish these two functions more clearly and explicitly than we have hitherto – one restricted to market transactions and one measuring more general flows of resources within the economy (probably closer to a notion of welfare) – thus generating virtually two parallel systems with their own aggregates for different kinds of analysis. Debate around 1970 on the “failures” of GDP as a welfare measure already opened this question – which was then closed again. It is probable that the current debate over bringing environmental degradation into account will restimulate this question.

These problems perhaps become most apparent in the national accounts, partly because of the constraint of measuring the same flow for two parties at the same value,

but the problem exists both upstream and downstream of national accounts. Basic statistics almost inevitably collect data only on actual transactions at the prices at which they occur. Economic analysis too often overlooks shifts in the relative importance of measured, market transactions and implicit ones that may be almost total substitutes.

More dialogue is needed between producers and users of the data to clarify what should be measured and what actually is measured.