

SATELLITE ACCOUNTS RECOMMENDED BY EUROPEAN UNION

Carmen Luiza COSTULEANU¹, Gabriela IGNAT¹

e-mail: ccostuleanu@yahoo.com

Abstract

Satellite accounts provide the ability to make links between non-monetary statistics and the standard national accounts. The first type involves a rearrangement of central classifications and the possible introduction of complementary elements. Such satellite accounts largely cover specific accounts data fields, such as expenditure on education, health care, tourism and environmental protection and might be considered as an extension of key sectors. They may involve some differences from the central system, such as an alternative treatment of ancillary activities, but does not change in a fundamental way the basic concepts of System of National Accounts (SNA). The second type of analysis through satellite accounts is mainly based on concepts that are alternatives to those of the SNA. Often, several alternative concepts can be used simultaneously. The second type of satellite accounts analysis may involve, similar to the first type, changes in classifications, but this type mainly focuses on alternative concepts. Using these alternative concepts may give rise to partial complementary units, whose purpose is to supplement the central system. We conceptually analyzed all described international and European satellite accounts, highlighting their characteristics and degree of implementation. For Romania, the introduction of satellite accounts is far away of being realised.

Key words: satellite accounts, European Union, Romania

For some specific needs in terms of data, the best solution is to have separate satellite accounts. An important feature of satellite accounts is that they keep, in principle, all basic concepts and classifications of the standard framework. Only if the specific purpose of satellite accounts requires an amendment, are there introduced changes in the basic concepts. In such cases, the satellite account should also include a table showing the links between the major aggregates of the account and the aggregates from the standard account. Thus, the standard framework holds its role as a framework of reference and at the same time there will be fulfilled several specific needs. (Costuleanu, 2010).

The 1993 System of National Accounts (SNA) incorporated the concept of satellite accounts, a major step in the direction of flexibility. Moving forward, satellite accounts are expected to continue to provide a useful way of working towards solutions that give the appropriate level of confidence in challenging measures, such as those for environmental accounting issues. Using satellite accounts as a means of expanding the relevance of the national accounts, but without affecting the comparability of the central framework used for economic policymaking, has become an accepted means of developing and testing new data sources and methods. Further, the

2008 SNA has introduced the item of “supplementary” items and tables. The term “supplementary” is used when the SNA recognizes that items may be of limited relevance in some countries or that while of analytical interest, a table cannot be prepared to the same standard of accuracy as the main set of accounts. (*, 2009).

MATERIAL AND METHODS

Our research on satellite accounts of the SNA is a fundamental and conceptual one. Although a conceptual framework is not always necessary, no serious fundamental economic research should be developed without such a framework. It is an integral part of understanding and problem analysis/research theme (Evensen, 2012).

The fundamental aim of the research was represented by the current state and prospects of implementation of satellite accounts of international system of national accounts in European Union (EU) and Romania to meet certain specific needs of data, in accordance with the requirements of SNA 2008 and in particular with those of EU.

European System of Accounts conceptualization (ESA 2010, possibly subject to approval in 2012, with the introduction of national accounting practice of EU member states in 2014) is consistent with that of SNA 2008. In ESA 2010 concepts were also included those of capitalization

¹ The University of Agricultural Sciences and Veterinary Medicine Iași

of health, environment, education, research and development. These concepts will be introduced into the basic ones when they'll include a high level of reliability and comparability of data between Member States. Until then, data will be presented in tables of satellite accounts. Therefore, ESA 2010 is paying a particular importance to the conceptualization and development of satellite accounts, integrated and functional ones, as an assessment means of flexible monetary accounting data from national accounts system in relation to non-monetary data.

RESULTS AND DISCUSSIONS

Satellite accounts can meet specific data needs by providing more detail, by rearranging concepts from the central framework or by providing supplementary information, such as non-monetary flows and stocks. They may deviate from the central concepts. Changing the concepts can improve the link with economic theoretic concepts such as welfare or transactions costs, administrative concepts such as taxable income or profits in the business accounts, and policy concepts such as strategic industries, the knowledge economy and business investments used in national or European economic policy. In such cases, the satellite system will contain a table showing the link between its major aggregates and those in the central framework. (**, 2010).

A further and more extensive form of flexibility is that of a satellite account. As its name indicates, it is linked to, but distinct from, the central system. Many satellite accounts are possible but, though each is consistent with the central system, they may not always be consistent with each other. (*, 2009).

Broadly speaking, there are two types of satellite accounts. One type involves some rearrangement of central classifications and the possible introduction of complementary elements. Such satellite accounts mostly cover accounts specific to given fields such as education, tourism and environmental protection expenditures and may be seen as an extension of the key sector accounts just referred to. They may involve some differences from the central system, such as an alternative treatment of ancillary activities, but they do not change the underlying concepts of the SNA in a fundamental way. The main reason for developing such a satellite account is that to encompass all the detail for all sectors of interest as part of the standard system would simply overburden it and possibly distract attention from the main features of the accounts as a whole. (*, 2009).

Many elements shown in a satellite account are invisible in the central accounts. Either they are explicitly estimated in the making of the central accounts, but they are merged for presentation in more aggregated figures, or they are only implicit components of transactions which are estimated globally. (*, 2009).

The second type of satellite analysis is mainly based on concepts that are alternatives to those of the SNA. These include a different production boundary, an enlarged concept of consumption or capital formation, an extension of the scope of assets, and so on. Often a number of alternative concepts may be used at the same time. This second type of analysis may involve, like the first, changes in classifications, but in the second type the main emphasis is on the alternative concepts. Using those alternative concepts may give rise to partial complementary aggregates, the purpose of which is to supplement the central system. (*, 2009).

The emphasis on the flexibility of the SNA extends to allowing complete flexibility about how many and what sort of satellite or other extended accounts may be developed. Satellite accounts, especially of the second sort, allow experimentation with new concepts and methodologies, with a much wider degree of freedom than is possible within the central system. When a number of countries develop similar satellites, exchanging experience can lead to beneficial refinements and the establishment of international guidelines in a particular topic and ultimately the possibility of changes in the central system itself. (*, 2009).

The wide range of satellite accounts illustrates that the national accounts serve as a frame of reference for a variety of statistics. They also illustrate the merits and limitations of the central framework. By applying the concepts, classifications and presentations such as the supply and use tables of the central framework to a wide range of topics, the flexibility and relevance of the satellite accounts approach for these topics is demonstrated. At the same time, additions, rearrangements and conceptual modifications illustrate the limitations of the central framework for the study of these topics. For example, the environmental accounts extend the central framework to take account of environmental externalities and the household production accounts extend the production boundary to include unpaid household services. In this way, they demonstrate that the central framework's concepts of product, income and consumption are not complete measures of welfare. (**, 2010).

The boundary between satellite accounts and a straightforward elaboration of the SNA or even with other systems is not clear cut. The links to balance of payments and the international accounts as presented in BPM6, government finance statistics as in GFSM2001 or MFSM could all be seen as a form of satellite account. The treatment of NPIs and the informal sector are clearly satellite accounts. Even the new pension table of SNA 2008 could be seen as a form of satellite account, even though its compilation is part of the central guidelines of the SNA. (*, 2009).

For the tourism satellite account and the environmental satellite account the international manuals are now in their second version. The health satellite account is still in a preliminary version but under active revision. The fourth area covers unpaid household production activities. This has been an area of interest for very many years but the difficulties in determining how to measure unpaid activities has so far been a stumbling block in reaching international agreement on how to proceed. (*, 2009).

Other satellite accounts have been developed or are under development. Some, such as a satellite investigating productivity across a number of countries reported in *Productivity in the European Union: A Comparative Industry Approach* (EU KLEMS Project, 2003), have been conducted to date as a research exercise. Others, such as accounts for water and forests, have been developed as elaborations of the main environmental satellite account *SEEA* to the point where international guidelines on these are now accepted. Further satellite accounts for agricultural products would be useful for a number of developing countries. Here and elsewhere, as there is agreement on how to compile a new form of satellite account, new international guidelines can be developed. International guidelines on satellite accounts themselves may be subject to revision and may eventually move towards an accepted international standard as is planned for the *SEEA*. (*, 2009).

The following satellite accounts are recommended to be elaborated by EU: a) agricultural accounts; b) environmental accounts; c) health accounts; d) household production accounts; e) labour accounts and SAMs; f) productivity and growth accounts; g) R&D accounts; h) social protection accounts; i) tourism satellite accounts. (**, 2010).

Designing and compiling a satellite account consists of four steps: a) define the purposes, uses and requirements; b) select what is relevant from the national accounts; c) select relevant supplementary information, e.g. from various

specific statistics or administrative data sources; d) combine both sets of concepts and figures into one set of tables and accounts. (**, 2010).

Designing and compiling satellite accounts for the first time often reveals unexpected results during the four steps. As a consequence, drawing up satellite accounts is work-in-progress. Only after experience of compiling and using the satellite and making modifications where necessary, can an experimental set of tables be transformed into a mature statistical product. In designing and compiling a satellite account, applying the concepts of the central framework for a purpose often reveals features. From the point of view of the purpose, these can be helpful as well as unexpected limitations. For example, in designing and compiling a Research and Development account for the first time, problems such as the overlap with R&D on software and health care, or the role of multinationals in importing and exporting R&D, may be revealed. Selecting relevant information from other sources than the national accounts such as other official statistics or administrative data sources, will generate similar problems in terms of concepts and figures: the concepts officially used may reveal unexpected flaws in terms of the specific purpose of the satellite, the actual concepts used may differ from the official concepts and the reliability, detail, timing and frequency may pose problems. All these problems should be tackled, either through making additional estimates to overcome the difference in concepts, by classifying flows in non-monetary terms by industry or sector, or by adjusting the concepts used in the satellite account. Transforming a consistent satellite account into a product for data users may involve additional steps. An overview table with key indicators for a number of years may be introduced. These key indicators could focus on describing the size, components and developments of the specific issue involved, or may show the links to the national economy and its major components. Extra detail or classifications relevant for political and analytical purposes may be added. Detail with little value added or compiled at relatively high costs may be dropped. Efforts could also focus on reducing the complexity of the tables, increase simplicity and transparency for data users and include standard bookkeeping decompositions in a separate table. (**, 2010).

On the other hand, "The 2008-2010 multi-annual national statistics program", developed by the National Institute of Statistics of Romania provides in the chapter of the satellite accounts only: environmental satellite accounts, natural

resource accounting and health satellite accounts (***, 2008).

In terms of environmental satellite accounts, INS program includes: the current implementation of satellite accounts of expenditure for environmental protection, development of methodology and data collection for National Accounting Matrix with Environmental Accounts - NAMEA; the development of methodology and data collection for "environmental industries" accounts. The satellite accounts of natural resources refer to actions for 2008 (exploration of administrative and statistical data sources for the calculation of environmental accounts; development of data collection on material flows and providing standard tables to Eurostat; development of the methodology and building of the indicators: resource productivity and material intensity of their use) but also for 2009 (development of methodology and data collection for the accounts of natural resources - coal, oil, natural gas; development of methodology and data collection for water flow accounts). Furthermore, the program also includes actions on health satellite accounts for 2008 (implementation of data collection on health expenditure, harmonized with OECD methodology and with the most recent methodological recommendations of Eurostat), yearly (for the collection of health expenditure of the three areas: funding sources, health functions and services, health service providers; an additional field is the collection of expenditure on health human resources in the standardized format), for 2009 (review the national methodology of the System of Health Accounts, following the preparation and publication of the second edition of the OECD-EUROSTAT-WHO methodology) and for 2010 (dissemination of statistics on health expenditure). (***, 2008)

As stated in 2009, Romania is in an initial stage of Tourism satellite account (TSA) compilation having some parts of a feasibility study (2005 and 2008) already prepared and also an unofficial pilot TSA version carried out in 2004. Now the target is to improve the statistical basis in order to have a detailed data necessary for TSA compilation. In 2005 INCDT carry out one part of a TSA feasibility study referring only to the

description and diagnosis of System of tourism statistics in Romania as well as some proposals to improve the existing tourism statistics. This study received contribution from INS and BNR (National Bank of Romania). The second part of the TSA feasibility study was completed in December 2008 by INCDT and it deals with some short general guidelines referring to the implementation alternatives, necessary activities, institutional construction and resources required. A full-fledged TSA on the other hand is not officially envisaged which originates from missing data and staff as well as a wanting background or affiliation to a national statistical program respectively. The preliminary pilot version was not financed by EU grant. (****, 2009).

CONCLUSIONS

The satellite accounts may sharpen the focused elements.

In contrast to the EU, for Romania the implementation of satellite accounts is a far away dream for many of the recommended ones.

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