

STATUS OF IMPLEMENTATION OF AGRICULTURE SATELLITE ACCOUNTS FOR ROMANIA

STADIUL IMPLEMENTĂRII CONTURILOR SATELIT DIN DOMENIUL AGRICULTURII PENTRU ROMÂNIA

*COSTULEANU Carmen Luiza*¹

e-mail: ccostuleanu@yahoo.com

Abstract. *An example of a specific account for agriculture is represented by the European Accounts for Agriculture (EAA). Its purpose is to describe the evolution of agricultural production and income. Once, this information is used to analyze the economic situation of agriculture in an European country and, secondly, for monitoring and evaluation of the common agricultural policy in European Union. EAA focuses on the production and the income derived from it. In principle, a satellite account for agriculture should not fully comply with the EAA. For Romania, there isn't a clear intention to introduce in the near future a satellite account for agriculture.*

Key words: *system of national accounts, satellite accounts, agriculture, European Union, Romania.*

Rezumat. *Un exemplu de cont specific domeniului agriculturii este reprezentat de conturile europene pentru agricultură (CEA). Scopul acestuia este de a descrie producția agricolă și evoluția venitului din agricultură. Aceste informații sunt utilizate la analizarea situației economice a agriculturii dintr-o țară europeană dată și la monitorizarea și evaluarea politicii agricole comune în Europa. CEA se concentrează pe procesul de producție și pe venitul derivat din acesta. În principiu, un cont satelit în domeniul agriculturii nu trebuie să corespundă în totalitate cu CEA. Pentru România nu există o intenție clară de introducere în viitorul apropiat a unui cont satelit pentru agricultură.*

Cuvinte cheie: *sistemul conturilor naționale, conturile satelit, agricultură, Uniunea Europeană, România.*

INTRODUCTION

The main aggregate measures in national accounts are gross domestic product (GDP), gross value added, disposable income, saving and external trade. The typical national accounts tools include input-output tables (showing how industries interact with each other in the production process), and the national balance sheet (showing assets on one side and liabilities and wealth on the other). The accounts are derived from data sources, including surveys, administrative and census data and official records. They are structured in a sequence of accounts components that include current accounts (production, income and expenditure accounts), capital accounts, financial accounts and balance sheets. Each account has a balancing item, which is obtained by subtracting the total value of the entries on one side of an account (uses or assets) from the total value on the other

¹University of Agricultural Sciences and Veterinary Medicine of Iași, Romania

side (resources or liabilities). This ensures that the accounts balance, and provides information such as value added, operating surplus, disposable income, saving, net lending/net borrowing and net worth (OECD et al., 2011).

The 1993 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 (European Commission et al., 2008)

MATERIAL AND METHOD

Personal research on satellite accounts of national accounts system (SNA) is a fundamental, conceptual and, partly, a development one, i.e. the empirical application of the concept of functional satellite accounts for agriculture in Romania (Costuleanu, 2013).

The concepts are generalizations. In economics, a concept is a "logical, mental construction of one or more connections". The concepts are inherently abstract and based on logic and reasoning. In economics, the concepts are typically focused on the relationships between variables. The main purpose of the fundamental conceptual framework is the development of hypotheses to be tested (Evensen, 2012).

The fundamental aim of the research was represented by the current state and prospects of international implementation of satellite accounts of national accounts system in EU and Romania, to meet specific needs for agriculture certain data, according to the requirements of the SNA 2008 and in particular, of the EU (SEC 95; SEC 2010) (European Commission et al., 2008; European Parliament, 2010).

RESULTS AND DISCUSSIONS

As the name indicates, the satellite account is both tied and distinct to the central system of national accounts. It is possible to develop several satellite accounts but, although each one is consistent with the central system, they may not always be consistent with each other. Satellite accounts can range from simple tables to an extended set of accounts. Satellite accounts can be compiled and published on an annual or quarterly basis. For other satellite accounts, production at more extended intervals such as once every five years is appropriate.

Satellite accounts can have various characteristics: a) links to functions, as in functional satellite accounts; b) links to industries or products, which is one type of special sector accounts); c) links to institutional sectors, a second type of special sector accounts; d) extension with physical or other non-monetary data; e)

extra detail; f) use of supplementary concepts; g) modification of some basic concepts; h) use of modeling or inclusion of experimental results. For a specific satellite account, one or more of the characteristics above can apply (European Parliament, 2010).

Functional satellite accounts focus on describing and analyzing the economy for a function, such as environment, health, and research and development. For each function they provide a systematic accounting framework. They do not provide an overview of the national economy, but focus on what is relevant for the function. To that end, they show detail not visible in the aggregated central framework, rearrange information, add information on non-monetary flows and stocks, ignore what is irrelevant for the chosen function and define functional aggregates as the key concepts (European Parliament, 2010).

There are several types of satellite accounts recommended to be developed and compiled at European level (European Parliament, 2010): a) agricultural accounts; b) environmental accounts; c) health accounts; d) household production accounts; e) labor accounts and social accounting matrices; f) productivity and growth accounts; g) R&D accounts; h) social protection accounts; i) tourism accounts.

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 (European Parliament, 2010). As example, I modified a physical supply and use table, compiled at SEEALand level (Table 1).

An example of an agricultural account is the European Accounts for Agriculture (EAA) (European Commission et al., 2008; European Parliament, 2010). Its purpose is to describe agricultural production and the development of agricultural income. This information is used for analyzing the economic situation of a European country's agriculture and for monitoring and evaluating the common agricultural policy in Europe.

The EAA focus on the production process and the income derived from it. However, in principle a satellite account on agriculture need not correspond fully to the EAA. Agricultural accounts could also include a supply and use table providing a systematic overview of the supply and use of agricultural products. This would provide information on the role of imports including the role of import duties, and developments in the demand for agricultural products such as exports and final consumption by households, and the role of related taxes and subsidies.

Table 1

Compiled example of physical supply and use table for agriculture, fishing and mining, modified stating on SEEAland source (European Parliament, 2010)

Physical supply table (Millions of tons)		
Products	P1 Animal and vegetable products	66.000
	P2 Stone, gravel and building materials	
	P3 Energy	112.000
	P4 Metals, machinery etc.	
	P5 Plastic and plastic products	65.000
	P6 Wood, paper etc.	
	P7 Other commodities	7.000
	All products	250.000
Residuals	To national territory	
	R1 CO ₂	19.020
	R2 N ₂ O	0,007
	R3 CH ₄	0,073
	R4 NO _x	0,061
	R5 SO ₂	0,023
	R6 NH ₃	0,020
	R7 Other to air	0,010
	R8 P	0,070
	R9 N	0,590
	R10 Other to water	0,030
	R11 Mining waste	7.233
	R12 Other solid waste	8.103
	Total to national territory	35.240
	To ROW territory	
	To air	
	R1 CO ₂	
	R4 NO _x	
R5 SO ₂		
Total to ROW territory		
Total residuals	35.240	
Total material supply		285.240
Physical use table (Millions of tons)		
Products	P1 Animal and vegetable products	23.000
	P2 Stone, gravel and building materials	12.000
	P3 Energy	
	P4 Metals, machinery etc	34.000
	P5 Plastic and plastic products	
	P6 Wood, paper etc.	
	P7 Other commodities	5.000
	All products	74.000

Natural resources	National natural resources	
	N1 Oil	38.000
	N2 Gas	27.000
	N3 Other	118.000
	N4 Wood	7.000
	N5 Fish	1.000
	N6 Other	
	N7 Water	1.000
	Total national natural resources	192.000
	ROW natural resources	
	N5 Fish	4.000
N7 Water		
Total ROW natural resources	4.000	
	Total natural resources	196.000
Ecosystem inputs	National ecosystem inputs	15.000
	ROW ecosystem inputs	
	Total ecosystem inputs	15.000
Residuals	From national territory	
	R1 CO ₂	
	R2 N ₂ O	
	R3 CH ₄	
	R4 NO _x	
	R5 SO ₂	
	R6 NH ₃	
	R7 Other from air	
	R8 P	
	R9 N	
	R10 Other from water	
	R11 Mining waste	
	R12 Other solid waste	0,240
	Total from national territory	0,240
	From ROW territory	
R1 CO ₂		
R4 NO _x		
R5 SO ₂		
Total from ROW territory		
	Total	0,240
Total material use		285.240

The agricultural accounts could also be expanded by including secondary non-agricultural activities, such as those for leisure activity. This can reveal important trends and substitution mechanisms. The interaction with the government can be made explicit by adding a table showing all income and capital transfers by local, central, or European government to the agricultural industry; this may also include special treatments in the tax system. Agricultural accounts could also be designed like a special sector account and include a full sequence of accounts including balance sheets and financial accounts, for farmers and corporations engaged in agriculture (European Parliament, 2010).

CONCLUSIONS

1. EU legislation regarding satellite accounts in agriculture is far from being developed.

2. An example of a specific agricultural account is the European Accounts for Agriculture (EAA). However, in principle, a satellite account on agriculture need not correspond fully to the EAA.

3. For Romania there is not a clear intention to introduce in the near future a satellite account for agriculture.

Acknowledgements: This work was supported by the project "Post-Doctoral Studies in Economics: training program for elite researchers - SPODE" co-funded from the European Social Fund through the Development of Human Resources Operational Program 2007-2013, contract no. POSDRU/89/1.5/S/61755.

REFERENCES

1. **Costuleanu Carmen Luiza, 2013** – *Satellite accounts of national accounts system*. In: Post-doctoral studies in economics. Post-doctoral dissertations, vol. 6. Romanian Academy Publishing House, Bucharest, ISBN 978-873-27-2296-1.
2. **European Commission, FMI, OCDE, UN and BM, 2008** - *A System of National Accounts 2008*. New York: 2009. Available at: <http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf>, p. XLIX.
3. **European Parliament, 2010** - *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the European System of national and regional accounts in the European Union*. Bruxelles, 20.12.2010, COM(2010) 774 final. Available at: [http://www.europarl.europa.eu/RegData/docs_autres_institutions/commission_europeenne/com/2010/0774/COM_COM\(2010\)0774\(PAR23\)_EN.pdf](http://www.europarl.europa.eu/RegData/docs_autres_institutions/commission_europeenne/com/2010/0774/COM_COM(2010)0774(PAR23)_EN.pdf), p. 2, 4, 5-6, 23-26.
4. **Evensen C., 2012** - *Research and Methodology Lectures*. Available at: <http://manoa.hawaii.edu/ctahr/aheed/Carl/15/08/2012>.
5. **OECD, Eurostat and WHO, 2011** - *A System of Health Accounts 2011*. OECD Publishing. doi: 10.1787/9789264116016-en. Available at: http://www.oecd-ilibrary.org/social-issues-migration-health/a-system-of-health-accounts_9789264116016-en, p. 35.