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Tracking Results in Agriculture and Rural Development in Developed Countries: Methodological Issues on a National Accounts Prospective

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Abstract

Monitoring and Evaluation of policies is intrinsically challenging and requires a very high level of technical capacity. Appropriate statistical indicators have to be selected and calculated to satisfy the needs of final users, linking the date to statistical demand. Appropriate classifications and definitions are also essential, while different data-sources and highly disaggregated estimations are needed; for instance, for small areas estimations and rural areas. Furthermore, Evaluation of a policy is a specific purpose, different from monitoring a project or long run economic analysis.

The paper try to address the argument from a National Account prospective, rely on the assumption that this is an appropriate macro-economic framework for statistics and to base scientific studies.

Keywords: National Accounts, Monitoring&Evaluation, Agriculture, Rural Development Statistics, Agricultural Households Income

JEL classification: E01

1. INTRODUCTION

National Accounts (NA) are a natural instrument to monitor development and evaluate policies at national and regional level. Nowadays in developed countries, numerous measurements, periodical surveys and administrative data, assure a flow of information for NA that allows to produce regular estimates, updating long time series. ISTAT data on NA are fully available and accessible for monitoring and evaluation (M&E) purposes on the website. Analysts can monitor the trend of developments in key variables of the economy, understanding the evolution of the full system, any incoming disequilibrium in flows, the effects of policies interventions on them and the state of stocks in each accountancy year.

In this statistical framework agriculture and the rural economy are just a subdivision of the total economy and a territorial identification of estimates, intended also as a subdivision of aggregates of variables, is also possible. A coherent framework, as it is by contraction the NA, allows a relative evaluation of this share of the economy with respect other industries and the rest of the economy.

The methodology behind NA, that is accountancy rules and definitions - classifications, have to be carefully considered to read the signals coming from the data, to understand socio-economic phenomena and if this framework is appropriate to check the changes, or if it should

be modified over time. The purpose of this paper is to highlight some of these features of NA and the signals of a changing agriculture in the 21st century economy.

2. AGRICULTURE IN NATIONAL ACCOUNTS

In NA, Agriculture is a subset of the national economy, with corresponding sub-aggregates, statistically defined as an Industry (section A, in ISIC - International Standard Industrial Classification of All Economic Activities). Any reference to Agriculture in the statistical system has to consider the conventional borders, even if based on theoretical categories, of this industry.

In NA different redefinitions, with extensions or narrowing of agricultural industry, are also possible based on ISIC groups and classes and reclassifications of institutional units. An example is the satellite account for agriculture produced for EUROSTAT that introduce, even if limited, differences with respect to the main NA.

3. INDUSTRIES AND INSTITUTIONAL UNITS

A set of statistical definitions of objects and international classification are the base to aggregate and disaggregate objectives variables. In this statistical representation of the economy and society, institutional units are involved in economic activities of production and consumption of products. Institutional units are organized, at territorial level, in local Kind-of-Activity Units (KAU) with a principal, secondary and ancillary activities. Classification of units with respect to principal activities allows their aggregation in Industries.

A limitation of this micro-classification of the economy is that institutional units are of a different nature and belongs to sub- populations of units; furthermore, they are grouped in cooperatives and enterprise groups, depending on the institutional and legal framework of the country; finally, local KAU are normally involved in more than one activity and produces more than a single product.

This feature of the economic organization are particularly true for units involved in agricultural activity because their products are normally input for food products or row materials in the manufacturing and energy industry. Producers compensate price instability, high market competition and low values added producing, directly or as a part of a larger organization, other products at the end of the supply chain. NA allows to reassemble these data, to reconstruct agri-food or other chains, as the base classifications are exhaustive of the economy and guarantee compatibility within the estimated variables.

Finally, activities at the boundaries of the classification and new areas activities, typically indicated as “services”, have to be reconsidered over time and they can change the dimensions of the industries and the statistical representation given with NA. An example is the support and secondary activity in the agricultural industry.

4. SUPPORT AND SECONDARY ACTIVITY IN AGRICULTURE

The first group considered is *Agricultural and animal husbandry ("connected") service activities* (A.014, ISIC Rev.3.1; NACE, ATECO). It includes activities (for farms, in farms, for agricultural products) on a fee or contract basis:

- provision of agricultural machinery with operators and crew;
- harvesting and preparation of crops for primary markets (excluding processing of agricultural products), other farm activities.

Finally, it includes landscape gardening and measures for protecting the environment and nature.

This classification has changed in 2008 (ISIC Rev.4; NACE, ATECO) and the group is now *Related service activities - Support activities to agriculture and post-harvest crop activities* (A.016). This group includes activities incidental to agricultural production done on a fee or contract basis:

- provision of agricultural machinery with operators and crew;
- not undertaken for production purposes (in the sense of harvesting agricultural products). Also included are post-harvest crop activities, aimed at preparing agricultural products for the primary market;

  Finally, it includes activities aimed at improving the propagation quality of seed.

The second grouping considered here, it concerns all secondary activities of a local agricultural KAU. It includes any activity of production done in the institutional unit different than agriculture, that share the same factors of production and are not separated in economic and management terms.

The set of these activities are growing in the real world as units of production differentiate their activity and search any possible source (production activities or transfers) of income.

In Italy, in 2009 production from support activities reached 5,3 billion Euro, with a continuous trend of increase over the last decade. If secondary activities are also considered, 1,5 billion Euro have to be added and this group of activities becomes one of the most important in agricultural industry. Only support activities are 11,6% of the total production and are lower only to meats (20,2%) and potatoes and vegetables (16,2%) productions. A few years ago, the production of this group of activity was lower also to cereals and milk production, two key products in agriculture.

These is a signal of a clear change in this industry, where fluctuations of prices and income stimulated producers to integrate and looking for more stable sources of income from the same means of productions.

Local implications are also quite strong, as specific characteristics of a region in terms of institutional framework and land-climate resources can facilitate or create a constrain to these processes of restructuring in the industry.

5. AGRICULTURAL INCOME AND INCOME OF AGRICULTURAL HOUSEHOLDS

In NA for agriculture income indicators relate to the income generated in the agricultural industry, that is by units (local KAU) with principal activity in agriculture. Income is mainly from agriculture but also non-agricultural secondary activities are important.

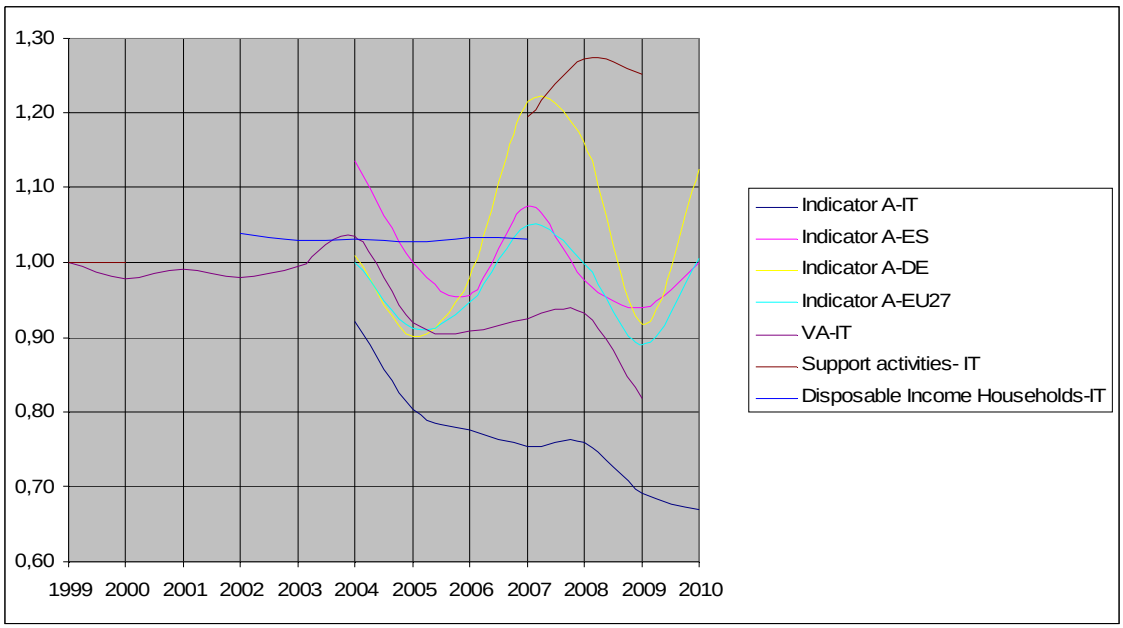
Three main indicators are calculated by EU countries: indicators A, index of the real income of factors in agriculture per annual work unit; B, index of real net agricultural entrepreneurial income per unpaid annual work unit; and C, net entrepreneurial income of agriculture.

The agricultural income does not constitute the total income and the disposable income of farming households: in addition, to a share of agricultural income, in aggregated terms, households receive income from other non –agricultural sources: salaries, social benefits, rents, interests and capital gain.

NA allows the calculation of disposable income of households and socio-professional sub-groups, as agricultural households, and to compare income between them. In different accounts, it is possible to follows income from the generation of value added in the industry, to the primary and secondary distribution to institutional units.

An example of a set of indicators to monitor agricultural income behaviour from different prospective and compared with other EU countries is the following:

Figure 1. Income Indicators: Italy Compared to EU Countries



Source: ISTAT – NA, EUROSTAT

In the last 10 years, are evident the trend deviations among EU countries and different components of agricultural income; differences will be also evident between households groups

if the disposable income for agricultural households will be calculated (at the moment, official estimates are available only for the total of households).

6. CONCLUSIVE REMARKS

National accounts are a powerful instrument for monitoring of agricultural industry and for evaluation of rural development policies at national and regional levels. First of all, it accounts of the fundamental relationship between units and industries, that is important to follow macro and micro-economic phenomena. Secondary, allows an exhaustive monitoring of income from the generation of value added in in the industries to its primary and secondary distribution to the institutional units. Finally, a careful reading trough the classification of activities allow understanding emerging phenomena in the economy.

National accounts division in ISTAT is particularly involved in this activity of monitoring and evaluation of agricultural and rural development policies: in collaboration with EUROSTAT, participating to the working group on agricultural accounts and producing indicators A, B and C, and other national Institutions, INEA and ISMEA, producing periodical reports and analysis.

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