

International conference on International Outreach and Coordination in National Accounts for Sustainable Growth and Development

Session 7 – Developing a complete system of NA; quality of basic data – statistical problems

Title: Armenian Experience of the Developing of Complete System of National Accounts: Quality of basic data - statistical problems

Institution: NSS - Armenia

A. Brief history of developing of National Accounts in Armenia

1. During the changes in the economic system of the country in early 1990s the Armenian Statistics started the process of integration in terms of methodology applied to estimate macroeconomic indicators. Although, the System of National Accounts (SNA-93) and economic balance system used in soviet statistics have great differences, main macroeconomic indicators used in these systems have some similarities that gave an opportunity to integrate them by using “cross-keys”.
2. Due to assistance of international organizations (in particular OECD) the process of final changes from the system of material product to SNA started in 1993. First calculations by SNA have been done using 1990 annual data.
3. At present we produce annual national accounts by industries¹, institutional sectors (including by subsectors in the sectors of non-financial and financial corporations²), as well as by set of first 7 accounts. The financial account is not implemented yet, but several studies and pilot data collection actions (with the assistance of international organizations such as Eurostat and the World Bank) were taken place during the last years. We are finalizing the processes to have this account in the nearest future.
4. At the same time, since 1992 we do quarterly calculations of GDP by production and expenditure side. The quarterly GDP data are presented in a format of IMF SDDS³. The last data, as well as the metadata of compilation are presented on IMF SDDS www.dsb.imf.org website. The metadata are updated quarterly.

B. Main statistical data sources used in National Accounts in Armenia

5. Statistical data used in national accounts include data received directly from enterprises and households, as well as information received from administrative data sources (administrative statistical registers).
6. Main data sources for compilation of accounts are:
7. Annual and quarterly statistical reports of organizations on their incomes and expenditures, household surveys, statistical reports from organizations on labour statistics, as well as labour force surveys, information from the Central Bank (administrative register for monetary and banking statistics), information from the Ministry of Finance and Economy (administrative register for general government statistics), the relevant information from other administrative registers (including also tax and customs), single sample surveys held in different spheres by the National Statistical Service of RA (NSS RA).

C. Some problems with initial information sources for different elements of National Accounts and practice of their solving in Armenia

8. The implementation of National Accounts is accompanied with different problems (mostly related to initial statistical data), which caused by transition processes in the economy, as well as by other factors.

Business Register

9. The establishment of complete and up-to-date business register is highly important in terms of having a complete initial database of respondents for economic statistics. It is treated as a basic instrument of

¹ Starting from 2005 data are presented by NACE 1.1 (ESA-95 - A3, A6 and A17 classification format). NSS adopted national version of NACE in 2001 and introduced it since 2002.

² Calculations were introduced since 2000 and are used to present produced GVA in the economy by types of ownership control.

³ Armenia subscribed to SDDS in November 2003.

improving the quality of initial information in the economic statistics which means also for national accounts.

10. The processes which took place in the transition economy caused large qualitative and quantitative changes in the field of economic entities. So, if in 1994 the state register consisted of about 12 thousand economic entities, then as of 1 January 2008 their number comprised 107398. At the same time the changes in type and place of activity and other core information about the entities are very frequent each year that is a peculiarity of current developments in the Armenian economy. Active companies frequently became inactive and vice versa, which is stipulated not only by seasonal factors. The above described brings many difficulties for statistics. Business Register Division of the NSS RA tries to solve this problem by receiving and comparing information from direct and indirect sources.

Other general issues of developing complete data system

11. The existence of large informal activities is another issue of complete data system for national accounts. Informal and non-observed sphere in the economy in terms of statistics is conditioned also by lack of relevant administrative registers. This issue is tried to be solved by non-observed economy estimations.

Estimation of Non-observed economy

12. The estimations of non-observed economy are included in GDP, since 1994. The methodology of estimation is improving permanently, taking into account recommendations of relevant international organizations. The estimations are based on employment and unemployment data, labour, household and other surveys, as well as indirect macroeconomic methods are used.
13. The NSS RA uses also single sample surveys` data to estimate the non-observed economy, as well as the quality of data received by periodical statistical observations. As examples: the focus surveys of non-commercial enterprises, healthcare institutions, transportation services. The NSS RA uses also cross-checking comparison for estimations included in non-observed economy.
14. NSS RA publishes two estimates of unemployment: first is officially registered unemployment (in terms of Armenian Law) and the second is unemployment estimate based on labour force survey. The survey data give also the estimate of hidden employment (employed by oral agreement, self-employed) which serves as a source for informal activity estimation.

Estimating output and intermediate consumption

15. Data received quarterly by periodic statistical observations on production activity of organizations are used to estimate market output and intermediate consumption data for national accounts. Output data are compared with relevant data from other statistical reports that are collected for business statistics by industries.

Issues of price indices used for valuation

16. There is an issue of valuation of the components of intermediate consumption, because of lack of complete and up-to-date input-output tables (or supply and use tables). Some estimates from sample surveys are used for these purposes.

Issues of estimating the volume of capital stock in the economy

17. The estimate of complete volume of capital stock in the economy is lost due to large changes in the economy accompanied with structural changes and high inflation during early 1990s. The NSS RA introduced the statistical report on fixed assets for the enterprises⁴, but it is not enough to have the complete information on capital stock in the economy.

⁴ Only enterprises included in statistical observations fill the report.