



Implementation of SNA 2008 International Standard in Ukrainian Statistical Practice

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Abstract

System of National Accounts (SNA) are international standard and a key to economic analysis. It plays an important role in both developing and monitoring economic policies. Ukraine at least initially compiled only a small part of the SNA 2008. Implementation of the fully integrated SNA 2008 will take some time and will need to progress at a rate determined by the differing needs and circumstances of the Ukraine. Ukraine will need to revise its underlying accounting system to reflect the accrual accounting principles and revised classifications of the SNA 2008.

Keywords: methodological changes, classifications, GDP components

1. Introduction

The purpose of reviewing the SNA is to update the national accounting methodology to correspond to the current economy development level, methodological research progress, and user needs. The changes mainly affect non-financial assets, financial services, financial instruments, rest of the world (balance of payments) accounts, and the general government sector. Most of the recommendations concern economic entities and operations that characterize the growing globalization of the economy, innovations in financial instruments, etc. Due to the changes in calculation of production, consumption and accumulation parameters, implementing an updating methodology will result in certain changes to the macroeconomic aggregates in the SNA, particularly the Gross Domestic Product (GDP).

According to the recommendations of the United Nations Economic Commission for Europe Statistical Division, the Statistical Committee of the CIS and other international organization, considering the extended period required to carry out this work in full. The first stage of implementation of the above methodological changes will give priority to issues that influence the amount and structure of the GDP as a macroeconomic aggregate.

2. Effect of Methodological Changes on GDP components

The summarized effect of the methodological changes of the updated SNA-2008 international standard on the GDP components in Ukrainian statistical practice in 2012 is illustrated in the Table 1.

Each of these changes causes an increase or decrease of the nominal value of output, intermediary output, gross value added, and GDP disposition categories.

1. The change in the FISIM calculation method results in increased non-market output; increased intermediate consumption in separate types of economic activity combined with decreased total intermediate consumption due to exclusion of consumer loans FISIM; decreased gross added value of market producers; increased final consumption expenditures of the institutional sectors "Households", "General government" and "Non-profit institutions serving households"; increased GDP.

Table 1

Effect of SNA-2008 changes on different types of economic activity Ukraine in 2012
(% of item)

Type of economic activity	Output	Intermediate consumption	Gross added value
Agriculture, forestry, fishery	0.1	0.7	-0.8
Processing, mining, quarrying, and other industry	0,9	1,9	-2,4
Construction	22.7	33.6	-1.6
Wholesale and retail, transport, warehousing, accommodation, catering	0.4	1.8	-0.8
Information and telecommunication	1.9	5.1	-1.3
Finance and insurance	-9.7	7.4	-18.0
Real estate services	23.1	4.0	38.0
Professional, scientific and technical services, administrative and auxiliary services	10.1	13.9	6.4
State governance and defense, education, health care and social services	0.6	0.7	0.6
Other services	14.2	6.7	19.2
Financial intermediation services indirectly measured (FISIM)		-100.0	-100.0
Total	2,4	1,3	4,2

Source: <http://www.ukrstat.gov.ua/>

The following formula is used to calculate FISIM:

$$\text{FISIM} = [(rL - rr) * yL] + [(rr - rD) * yD], (1)$$

where:

yL – average outstanding loan balance in the reporting period,

yD – average deposit balance in the reporting period,

rL – loan interest rate,

rD – deposit interest rate,

rr – reference interest rate,

$(rL - rr) * yL$ – FISIM for loans,

$(rr - rD) * yD$ – FISIM for deposits.

The internal reference rate should be determined using the prevailing inter-bank borrowing and lending rates. Sometimes, such decisions result in a negative FISIM value. In such cases, IMF and CIS Statcommittee experts recommend calculating the reference rate as an average between borrowing and lending rates for each institutional subsector of the economy that consumes financial intermediation services.

2. The change in the insurance services valuation method results in an increased insurance output and a respective decrease in its intermediate consumption; it does not affect the GDP. According to SNA-2008, transactions between insurer and reinsurer should be reflected separately for insurance premiums payable to the insurer and those payable to the reinsurer. Therefore, insurance premiums are first reflected as payable to the insurer, and then a smaller portion thereof is reflected as payable to the reinsurer (recording on gross basis). Services provided by the reinsurer are allocated to intermediate consumption of the direct insurer.

Output of reinsurance services is calculated as:

$$\text{RIO} = \text{IP} - \text{IC} - \text{IR}, (2)$$

where:

RIO – reinsurance services output,

IP – insurance premiums received from reinsurers,

IC – insurance claims paid to reinsurers,

IR – portion of reinsurers in unearned premium reserves.

In case of catastrophic natural disasters, insurance claims can sometimes exceed current insurance premiums. To avoid negative values of insurance services production during that period, SNA-2008 recommends adjusting insurance claims by using smoother data sets for previous periods, or assessing the production of insurance services based on production expenses, including implicit income calculation. Extraordinary claims may be recorded as capital transfers rather than as current transfers.

3. Including research and development products in gross aggregate results in a decreased intermediate consumption of these services by market producers, therefore decreasing the value added of the latter; as well as a decreased final consumption expenditures of the general government sector and an increased gross fixed capital formation; and an increased GDP.

4. Including weapons expenses in gross fixed capital formation decreases output and intermediate consumption, as well as final consumption expenses of the general government sector, while increasing gross aggregate respectively and therefore, having no effect on the GDP.

5. SNA-2008 and the sixth edition of the Balance of Payments Compilation recommend reflecting export and import exclusively on the basis of change of ownership; therefore, flows of goods between the owner country and the processing country should not be included in exports and imports of goods. A change in reflecting international trade in goods for processing results in a decreased intermediate consumption and output, as well as export and import, while having virtually no effect on the GDP.

6. SNA-2008 states that production in national accounts should include economic activity that is not directly observed, that is, not captured in regular statistical enquiries. Including illegal economic activities in production results in increased output, intermediate consumption and gross value added, as well as increased final consumption expenses of households, which results in increased GDP.

7. The change in calculating services of owner-occupied dwellings results in increased output, gross value added and final consumption expenses of households, and respectively, an increased GDP. The value of the residential fund for which the value of imputed services of owner-occupied dwelling is being calculated, in current prices (Kir), is calculated as:

$$Kir = Knew / Snew * Stot * (1 - (A / L)) * Q * Spriv / Stot * (1 - (Sar / Spriv)), (3)$$

where:

Kir – total value of the residential fund for which the value of imputed services of owner-occupied dwelling is being calculated, in current prices;

Knew – value of the residential fund commissioned during the reporting period;

Snew – area of the residential fund commissioned during the reporting period;

Stot – total area of the residential fund;

Spriv – area of privatized residential fund;

Sar – area of the residential fund actually leased out;

A – average age of the residential fund;

L – expected length of use of the residential fund (average for European countries – 70 years);

Q – available residential fund quality quotient relative to new residential fund (determined by expert).

Consumption of fixed capital (CFKir) is calculated using the "geometric write-off without disposal", i.e. as a constant portion of the residential fund's value in current market prices, using the following formula:

$$CFKir = Kir * D / L, (4)$$

where:

D – residual residential fund use quotient (average for European countries – 1.6).

Imputed rent for owner-occupied dwellings (IR) is calculated as:

$$IR = EC + IN + FS + TAX + CFKir + I (5)$$

where:

EC – exploitation and current repairs expenditures;

IN – insurance premiums paid by dwelling owners, less insurance claims;

FS – financial intermediation services for dwelling purchase and reconstruction;

TAX – residential services taxes, real estate taxes, land taxes;



I – nominal income calculated for the current dwelling value (Kir*2.5%).

3. Conclusions

Implementation of the methodological changes envisaged by the updated international standard SNA-2008 in the national accounts of Ukraine will be simultaneous with a retrospective review of production and income generation accounts data for the previous years, due to the implementation of new economic activity classification system of Ukraine. Change in the classification of economic activities will also have a certain influence on national accounts aggregates, due to clarified definitions and classification rules for entities that outsource production.

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