



ევროკავშირი  
საქართველოსთვის  
The European Union for Georgia



# Twinning Project

Contract: GE 16 ENI ST 06 18

## Strengthening the Capacity of the Georgian Statistical System

**Component 2: Enhancing methodological soundness in the National Accounts in line with the EU standards**

**Sub-component 2.3: Compilation method for Sector Accounts**

### MISSION REPORT

**Activity: 2.3.C (RS) “Compilation of Financial Corporations (S.12) and Capital Accounts”**

Mission carried out by

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## 1. General comments

This mission report was prepared within the EU Twinning Project, "Strengthening the Capacity of Georgian Statistical System". This was the third mission within the sub-component 2.3: "Compilation method for Sector Accounts". Due to COVID-19 the mission was carried out as a Remote Session in the period from February, 22<sup>nd</sup> to February, 26<sup>th</sup> 2021. The mission was mainly devoted to compilation of sector accounts for the financial sector and the capital accounts.

The purposes of the mission were:

- Work on improvement of compilation methods for Sectoral Accounts continued on the basis of the work plan prepared on the activity 2.3B.
- Compilation of accounts for Financial Corporations and Capital Accounts

The consultants would like to express their gratitude to the Geostat staff who participated in the mission, for the kind support and valuable information received during the mission.

The views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of the European Union, Geostat, Statistics Denmark, or other statistical institutions involved in the implementation of the project.

## 2. Assessment and results

### Financial sector

Follow-up on remaining issues related to transactions D.4 Property income, D.6 Social contributions and benefits and D.7 Other current transfers was performed during this mission.

### D.4 Property income transactions

MS experts' recommendations regarding D.4 Property income transactions were incorporated by Geostat in the compilation framework. The changes comprise of:

- Inclusion of interest income/expenses for insurance companies in D.41 transactions for S.12
- Inclusion of dividends income for insurance companies in D.42 transactions for S.12
- Split of D.43 transactions between domestic sectors in accordance with BoP
- Compiling D.44 transactions for S.12 on the uses-side by using investment income for insurance companies as a source and then distributing D.44 transactions by sectors on the resources-side on the basis of sectors' shares of net non-life insurance premiums paid
- Assumptions about shares of sectors S.11 and S.14 on the uses-side of D.45 transactions were made after consultation with Treasury

### D.6 Social contributions and benefits

Framework for Georgia's pension system including a new pension fund from 2019 was finalised. Outline of relevant transactions was prepared for incorporation into the sector accounts compilation setup. The transactions, which will be involved when accounting for flows from the new pension fund, are: D.12 Employers' social contributions, D.611 Employers' actual social contributions, D.613 Households' actual social contributions, D.614 Households' social contributions supplements, D.61SC Social insurance scheme service charges (which are deducted from the redistributive transactions to become part of production and final consumption), D.62 Social benefits and D.442 Investment income payable on pension entitlements.

### D.7 Other current transfers

Geostat has incorporated into the compilation framework information from Insurance Supervisory Agency as a direct data source about the total of net non-life insurance premiums (D.71) received by insurance corporations and the total of non-life insurance claims (D.72) paid by insurance corporations. The compilation setup about

the remaining split between counterpart sectors on transactions D.71 and D.72 has been agreed upon with the experts. It involves maximizing the use of the information from the Insurance Supervisory Agency about types of insurance and assigning counterpart sectors as users of the insurance services in question. After shares for households are assigned, the remaining shares of S.11, S.12, S.13 and S.15 can be distributed by using information from input-output tables for insurance services, where no better information is available from the direct data source.

### **Remaining issues about S.12**

At the end of this mission Geostat mentioned challenges about calculating output for holding companies in S.12. Initially, it was considered that there are no such companies in Georgia. However, three holding companies have been identified with help from business register where one of them is more significant in terms of economic activity. All three companies are included in the business survey performed by Geostat, but lacks information about non-interest expenses which makes calculating output challenging. The experts' recommendation is to use direct data from the income statement of the biggest holding company, which are publicly available, instead of using information from the survey.

Transactions about D.8 Adjustment for the change in pension entitlements are missing from the sector accounts framework. They will be included as a part of the final balancing as transactions between S.12 and S.14. Information about D.8 calculations in Denmark have been exchanged during the previous mission 2.3.B.

### **Capital accounts**

The first part of the work on capital accounts started with a focus on how Geostat and Statistics Denmark compile gross fixed capital formation (GFCF), capital stocks (CS) and consumption of fixed capital (CFC) in practice. A power point presentation on sources and methods used by Geostat for compiling GFCF, CS and CFC was given by Geostat. The presentation by Geostat also included the sector dimension of the compilation.

Similar presentations was given by MS expert Christian Gysting on how Statistics Denmark compile gross fixed capital formation, capital stocks and consumption of fixed capital. The presentation also highlighted the sources and method for compiling GFCF, CS and CFC by sector.

After the presentations, in-depth discussions followed.

### ***Issues discussed and assessments***

#### ***GFCF***

In general, the compilation of GFCF, CS and CFC looks very reasonable. The compilation of GFCF is – where possible – based on Structural Business Statistics (SBS), which must be considered the best possible source. Geostat should investigate possible gaps in the measurement of GFCF, possible places for gaps could be: own-account software and dwellings for sector S.11.

#### ***Treatment of R&D***

The major issue discussed regarding GFCF was compilation of output and investment on research and development (R&D). Geostat use special surveys to gather information regarding costs (expenditures) target towards R&D development. Without directly being Frascati Manual based surveys, the gathered information match the information needed, even though the used surveys are not Frascati Manual based surveys.

Part of the discussions regarding R&D was focused on treatment of purchase of R&D by the R&D-industry (NACE 72). If R&D output is based on costs, which is the normal compilation method for R&D measurement, purchased R&D by the R&D industry should be added to output because the purchased R&D is not included in

the initial cost estimate. This is consistent with the guidelines from Eurostat on measurement of R&D (Manual on measuring Research and Development in ESA 2010, 2014 edition).

It is very useful to split the produced R&D into an own-account component and a purchased component. These two components can be incorporated into supply and use tables.

During the mission, an email exchange with R&D figures has taken place. The exchange included an example from Christian Gysting on how to split the Georgian R&D-figures into an own-account component and a purchased component. The example was based on Georgian source data on R&D. Further, the example included a suggestion on how to treat purchased R&D by the R&D-industry.

### **Capital stocks and consumption of fixed capital**

Geostat has compiled CS and CFC by type of asset, industry for sector S.11 and S.13. It is the plan by Geostat that the method (and spreadsheet) should be used for compiling CS and CFC for the remaining sectors (S.12, S.14 and S.14). This is a very reasonable plan.

As part of the discussion on measurement of capital stocks and consumption of fixed capital an excel spreadsheet with the Georgian CS/CSC was exchanged. Based on this spreadsheet some minor adjustments are suggested:

- A. The deflator (price index) for end of the year should be calculated the same way for all the years except the most recent year (2019), where it is not possible. Currently, the calculation for the year 2018 should be changed.
- B. The estimation of the net stock at the end of the year should be changed, see equation (1.2) below. The change will bring the calculation in line with standard OECD recommendations. The equation for the initial benchmark should also be changed, see equation (2.2).

The adjustments suggested above would only bring minor changes to the results, and the update to the CS/CFC figures can be implemented when the numbers needs to be recalculated, while already determined values can be kept unchanged.

Currently Geostat use this formula to compile net stock at the end of the period (at constant prices):

$$(1.1) \quad \text{Net}(t, \text{ end of year}) = \text{GFCF}(t) * [(1 - \delta)/2] + \text{Net}(t-1, \text{ end of year}) * [1 - \delta]$$

It is suggested that the equation for the net stock should be changed to the following equation:

$$(1.2) \quad \text{Net}(t, \text{ end of year}) = \text{GFCF}(t) * [1 - (\delta/2)] + \text{Net}(t-1, \text{ end of year}) * [1 - \delta]$$

Currently Geostat use this formula to compile the initial benchmark for the net stock (at constant prices):

$$(2.1) \quad \text{NetB}(t, \text{ end of year}) = (\text{GFCF}(t) * [(1 - \delta)/2]) / (\delta + \theta)$$

It is suggested that the equation for the initial benchmark net stock should be changed to the following equation:

$$(2.2) \quad \text{NetB}(t, \text{ end of year}) = (\text{GFCF}(t) * [1 - (\delta/2)]) / (\delta + \theta)$$

Equation (2.2) differs from the OECD recommendation (Measuring Capital 2009, Second edition) because it deducts for depreciation in the first period (the term  $[1 - (\delta/2)]$ ). It can be debated if it is necessary to deduct for depreciation in the first period given the uncertainty associated with calculating an initial benchmark based on one year of investment and an estimate for the average for growth in investment (or GDP). If Geostat prefer to be consistent with the OECD recommendation, Geostat can omit the term  $[1 - (\delta/2)]$ .

Net(t, end of year)	= Estimate for net stock for period t, end of the year
NetB(t, end of year)	= Estimate for net stock initial benchmark for period t, end of the year
GFCF(t)	= Gross fixed capital formation for period t
$\delta$	= Depreciation rate
$\theta$	= Average growth rate in investment or GDP

### 3. Conclusions and follow up

- Sequence of sector accounts according to SNA 2008 is compiled for the financial sector
- Work on compiling sequence of capital accounts according to SNA 2008 for all sectors is started and should continue, including compilation of capital stocks and consumption of fixed capital for S.12, S.14 and S.15.
- Framework for property income transactions (D.4) across all sectors finalised
- Framework for new pension system from 2019 finalised
- Transactions regarding insurance premiums and claims (D.71 and D.72) across all sectors – compilation setup agreed upon

Actions needed for moving forward:

Action	Deadline	Responsible person
D.7 transactions to be updated in the sector accounts framework and the excel spreadsheet to be exchanged with the experts	17 <sup>th</sup> March, 2021	Geostat
Discussion on outstanding issues related to capital accounts to be exchanged by e-mail	April, 2021	Geostat
Geostat should finalise the work on compiling capital stocks and CFC for all sectors (currently, Geostat has S.11 and S.13 finalised)	August, 2021	Geostat

## Annex 1. Terms of Reference

### EU Twinning Project GE 16 ENI ST 06 18

22<sup>nd</sup> February – 26<sup>th</sup> February 2021

### Component 2: Enhancing methodological soundness in the National Accounts in line with the EU standards

#### Sub-component 2.3: Compilation method for Sector Accounts

##### Mandatory results and benchmarks for sub-component 2.3:

- Compilation method for Sector Accounts improved

##### Indicators of Achievement (baseline and targets):

- Availability of sector accounts as a statistical product
  - **Baseline:** 2019 – Sector Accounts are not produced by Geostat
  - **Target:** March 2021 – Sector accounts available

#### **Activity 2.3.C (RS) “Compilation of Financial corporations (S.12) and Capital Accounts”**

##### 1. Purpose of the activity

- Work on improvement of compilation methods for sector accounts for:
  - Financial corporations sector
  - Capital accounts
    - Gross fixed capital formation
    - Consumption of fixed capital

##### 2. Expected output of the activity

- Finalising work on compiling sequence of sector accounts according to SNA 2008 for the financial sector and the capital accounts
- Mission report written
- ToR for next activity prepared



## Annex 2. Persons met

### Geostat

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