

Joint Eurostat/OECD 2019 questionnaire on the methodology underlying capital stocks data in national accounts

Country: Lithuania

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Information regarding Gross Fixed Capital Formation (GFCF) compilation

This information sheet presents metadata provided by the country for publication by Eurostat. It informs on the methods and sources used to compile GFCF under the [European System of Accounts 2010 \(ESA 2010\)](#). While the questionnaire has a common structure, the level of detail of replies differs from one country to another and, therefore, only available country replies are shown here.

For easier cross-country comparison, users of GFCF data are invited to consult the tabular presentation of metadata on estimation of capital stocks by asset type, industry and institutional sector:

[Capital Stock Metadata in Tabular Format](#)

N111. Dwellings

Question 1. What is/are the main source/s to estimate GFCF in dwellings in your country, and which are the products or assets included under this asset category? Please specify if sources differ across industries and/or institutional sectors.

The Investment Statistics Division data are used as a basis. Additional information from Centre of Registers, administrative data (e.g. State budget, Municipal budget data, Public Sector Accounting and Reporting Consolidation Information System).

Dwellings (AN.111) comprise buildings, or designated parts of buildings, that are used entirely or primarily as residences, including any associated structures, e.g. houses, bungalows, flats and apartments, hostels. Data sources are the same for industries and institutional sectors calculations.

Question 2. What is the length of the GFCF series for dwellings? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differ across industries and institutional sectors.

GFCF series since 1995 are available for dwellings.

Question 3. Are costs of ownership transfer included in GFCF? How do you define them and treat them in the estimation of capital stocks of dwellings (e.g. treated equally to GFCF, or specific average service life/depreciation profile for these costs)?

Yes. Costs of ownership transfer are included in GFCF series of dwellings and treated with the same average service life.

Question 4. What price indices do you use to deflate GFCF in dwellings, and how do you construct these indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Construction input price indices for residential buildings are used to deflate GFCF in dwellings. See https://ec.europa.eu/eurostat/cache/metadata/EN/sts_copi_q_esms_lt.htm for metadata on their construction.

N1121. Buildings other than dwellings

Question 1. Do you have specific GFCF series for detailed asset categories (e.g. office buildings, industrial buildings, public buildings, etc.)? Are your GFCF series broken down by industry and/or institutional sector? If your answer is yes to any of these questions, please describe and provide the link to available data and relevant documents.

No.

Question 2. What is/are the main source/s to estimate GFCF in buildings other than dwellings in your country? Please specify if sources differ across industries and/or institutional sectors.

Data sources are the same for industries and institutional sectors calculations.

The sources are: structural business statistics (SBS) survey, investment survey (questionnaire KS-02), administrative data (e.g. State budget, Municipal budget data, State Social Insurance Fund's statement, extra-budgetary accounts, Compulsory Health Insurance Fund's statement, Employment Fund's statement, Public Sector Accounting and Reporting Consolidation Information System), financial statements of enterprises, information of Agricultural Information and Rural Business Center."

Question 3. What is the length of the GFCF series? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differs across assets within this asset category, industries and institutional sectors.

GFCF series are available since 1995.

Question 4. Are costs of ownership transfer of buildings other than dwellings included in this GFCF series? How do you define them and treat them in the estimation of net capital stocks of buildings other than dwellings (e.g. treated equally to GFCF, or specific average service life/depreciation profile for these costs)?

Yes. Costs of ownership transfer are included in the GFCF series and treated with the same average service life.

Question 5. What price indices do you use to deflate GFCF in buildings other than dwellings, and how do you construct these indices? How do you account for quality improvements? Do you use specific

price indices for detailed asset categories? Do these price indices differ across industries/institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Construction input price indices for non-residential buildings are used to deflate GFCF in buildings other than dwellings.

Metadata could be found at: <https://osp.stat.gov.lt/web/guest/pradinis>

in the following way: Database of indicators Database Economy and finance (macroeconomics) Price indices, changes and prices Construction input price index (2015–100). On the left menu press symbol i and select Meta-information "Construction input price index (CIPI)".

N1122. Other structures

Question 1. Do you have specific GFCF series for detailed asset categories (e.g. roads, railways, bridges, etc.)? Are your GFCF series broken down by industry and/or institutional sector? If your answer is yes to any of these questions, please describe and provide the link to available data and relevant documents.

Yes, but only for roads and bridges (viaducts, tunnels) belonging to general government. The statistical investment survey (questionnaire KS-02), which specially inquired state institutions and municipalities about roads & bridges' infrastructure, continuously prepares annual data on investments, which include by definition new construction, complete reconstruction and major repairs. GFCF data are not published at a national level. Roads and bridges (viaducts, tunnels) are included as "other structures" in S13 under "O (84.1- 84.2)" activity (administration of the state and the economic and social policy of the community). The full description of sources and methods of stocks see in the GNI inventory 2010.

Question 2. What is/are the main source/s to estimate GFCF in other structures in your country? Please specify if sources differ across industries and/or institutional sectors.

Data sources are the same for industries and institutional sectors calculations.

The sources are as follows: structural business statistics (SBS) survey, investment survey (questionnaire KS-02), administrative data (e.g. State budget, Municipal budget data, State Social Insurance Fund's statement, extra-budgetary accounts, Compulsory Health Insurance Fund's statement, Employment Fund's statement, Public Sector Accounting and Reporting Consolidation Information System), financial statements of enterprises, Agricultural Information and Rural Business Center data.

Question 3. What is the length of this GFCF series? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differs across assets within this asset category, industries and institutional sectors.

The length of the available GFCF series is since 1995.

Question 4. Are costs of ownership transfer of other structures included in this GFCF series? How do you define them and treat them in the estimation of net capital stocks of other structures (e.g. treated equally to GFCF, or specific average service life/depreciation profile for these costs)?

Yes. Costs of ownership transfer are included in GFCF series and treated with the same average service life. Statistical survey of short-term service enterprise activity is the main data source.

Question 5. What price indices do you use to deflate GFCF in other structures, and how do you construct these indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Construction input price indices for civil engineering structures are used to deflate GFCF in other structures. Metadata you can find <https://osp.stat.gov.lt/web/guest/pradinis> by this way: Database of indicators ▢ Database ▢ Economy and finance (macroeconomics) ▢ Price indices, changes and prices ▢ Construction input price index (2015–100). On the left menu press symbol i and select Meta-information "Construction input price index (CIPi).

N1123. Land improvements

Question 1. Does GFCF in other buildings and structures (N112) reported in questionnaires 0102 (GDP identity from the expenditure side), 0302 (Capital formation) and 2200 (Cross-classification of gross fixed capital formation (GFCF) by industry and by asset (transactions)) include land improvements (N1123)?

Yes, land improvements are included in other buildings and structures in all tables (0102, 0302 and 2200).

Question 2. What is/are the main source/s to estimate the value of GFCF in land improvements in your country? Please specify if sources differ across industries and/or institutional sectors.

The calculation is based on the Investment survey, which collects data on the major improvements of land. Data sources are the same for industries and institutional sectors calculations.

Question 3. Are costs of ownership transfer of land included in land improvements (N1123) and hence in the aggregate asset category other buildings and structures (N112) that you report in the national accounts questionnaires 0102, 0302 and 2200?

Yes.

Question 4. What price indices do you use to deflate GFCF in land improvements, and how do you construct these indices? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Construction input price indices for civil engineering structures are used to deflate GFCF in other structures. Metadata you can find: <https://osp.stat.gov.lt/web/guest/pradinis>

in the following way: Database of indicators / Database / Economy and finance (macroeconomics) / Price indices, changes and prices / Construction input price index (2015–100). On the left menu press symbol i and select Meta-information "Construction input price index (CIPI).

N1131. Transport equipment

Question 1. What is/are the main source/s to estimate GFCF in transport equipment in your country?

Data sources are the same for industries and institutional sectors calculations.

The sources are as follows: structural business statistics (SBS) survey, investment survey (questionnaire KS-02), administrative data (e.g. State budget, Municipal budget data, State Social Insurance Fund's statement, extra-budgetary accounts, Compulsory Health Insurance Fund's statement, Employment Fund's statement, Public Sector Accounting and Reporting Consolidation Information System), financial statements of enterprises, Agricultural Information and Rural Business Center data.

Question 2. Do you have specific GFCF series for detailed asset categories (e.g. motor vehicles, ships, railway locomotives, aircrafts, etc.)? Are your GFCF series broken down by industry and/or institutional sector? If your answer is yes to any of these questions, please describe and provide the link to available data and relevant documents.

No.

Question 3. What is the length of these GFCF series? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differ across assets within this category, industries and institutional sectors.

GFCF series are available since 1995.

Question 4. What price indices do you use to deflate GFCF in transport equipment, and how do you construct these indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries/institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Weighted average of producer price indices (PPI's) for Lithuanian market for activities 29 and 30 NACE Rev.2 at 2 digit-level and import price indices (IPI's) for products 29 and 30 CPA 2.1 at 2 digit-level is constructed to deflate GFCF in transport equipment. Information on production and imports of investment goods is used for the weights. PPI's for activities 29 and 30 and IPI's for products 29 and 30 at 2 digit-level are constructed as aggregates from PPI's and IPI's at 3 digit-level (preliminary data) or 4 digit-level (final data) using information on production and imports of investment goods.

ICT equipment (N1132): computer hardware (N11321) + telecommunications equipment (N11322)

Question 1. What is/are the main source/s to estimate GFCF in computer hardware (N11321) and telecommunications equipment (N11322) in your country? Do you have specific GFCF series for

detailed assets within these categories (e.g. data processing machines, peripheral equipment, storage units, etc.) in different industries and/or institutional sectors?

Data sources are the same for industries and institutional sectors calculations.

The sources are as follows: structural business statistics (SBS) survey, investment survey (questionnaire KS-02), financial statements of enterprises. We do not have specific GFCF series for detailed assets due to lack of information.

Question 2. What is the length of GFCF in computer hardware and telecommunications equipment? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differ across detailed assets within these asset categories, industries and/or institutional sectors.

GFCF series are available since 1995.

Question 3. What price indices do you use to deflate GFCF in computer hardware and telecommunications equipment, and how do you construct these indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Weighted average of producer price indices (PPI's) for Lithuanian market for activities 26.2 and 26.3 NACE Rev.2 at 2 digit-level and import price indices (IPI's) for products 26.2 and 26.3 CPA 2.1 at 2 digit-level is constructed to deflate GFCF in computer hardware and telecommunication equipment. Information on production and imports of investment goods is used for the weights. PPI's for activities 26.2 and 26.3 and IPI's for products 26.2 and 26.3 at 2 digit-level are constructed as aggregates from corresponding PPI's and IPI's at 3 digit-level (preliminary data) or 4 digit-level (final data) using information on production and imports of investment goods.

Other machinery and equipment and weapons systems (N110): Other machinery and equipment (N1139) + weapons systems (N114)

Question 1. What is/are the main source/s to estimate GFCF in other machinery and equipment and weapons systems in your country? Do you have specific GFCF series for detailed assets within these categories (e.g. electrical equipment, weapons, etc.) in different industries and/or institutional sectors?

Data sources are the same for industries and institutional sectors calculations.

The sources are as follows: structural business statistics (SBS) survey, investment survey (questionnaire KS-02), administrative data (e.g. State budget, Municipal budget data, State Social Insurance Fund's statement, extra-budgetary accounts, Compulsory Health Insurance Fund's statement, Employment Fund's statement, Public Sector Accounting and Reporting Consolidation Information System), financial statements of enterprises, Agricultural Information and Rural Business Center data; additional information for weapons systems (N114) from Ministry of National Defense Republic of Lithuania.

Question 2. What is the length of GFCF in other machinery and equipment and weapons systems? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differ across assets within each asset category, industries and/or institutional sectors.

GFCF series are available for other machinery and equipment (N1139) since 1995 and for weapons systems (N114) since 1996.

Question 3. What price indices do you use to deflate GFCF in other machinery and equipment and weapons systems, and how do you construct these indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Weighted average of producer price indices (PPI's) for Lithuanian market for activities 25, 27, 28, 31, 32 and 26 (except 26.2 and 26.3) NACE Rev.2 at 2 digit-level and import price indices (IPI's) for products 25, 27, 28, 31, 32 and 26 (except 26.2 and 26.3) CPA 2.1 at 2 digit-level is constructed to deflate GFCF in other machinery and equipment. Information on production and imports of investment goods is used for the weights. PPI's and IPI's at 2 digit-level are constructed as aggregates of corresponding PPI's and IPI's at 3 digit-level (preliminary data) or 4 digit-level (final data) using information on production and imports of investment goods.

Cultivated biological resources (N115)

Question 1. What is/are the main source/s to estimate GFCF in cultivated biological resources in your country? Do you have specific GFCF series for detailed assets within these categories (e.g. orchards, crops, dairy cattle, etc.) in different industries and/or institutional sectors?

Agricultural and Environmental Statistics Division data, based on the Survey on agricultural companies and survey on farms. We do not have specific GFCF series for detailed assets due to lack of information.

Question 2. What is the length of GFCF in cultivated biological resources? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differ across products within this asset category, industries and/or institutional sectors.

GFCF series are available since 1995.

Question 3. What price indices do you use to construct volume measures of cultivated biological resources, and how do you construct these indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Volume indices of tree resources and animal resources are used to extrapolate data of previous years without any quality improvements.

Research and development (N1171)

Question 1. Do you estimate GFCF in R&D by detailed R&D asset type? If yes, please specify the detailed R&D asset breakdown.

We replied to the Eurostat-OECD Survey of Capital Measures for Research and Development, and Software and Databases.

Question 2. What is/are the main source/s to estimate GFCF in research and development (R&D)? Please describe briefly the architecture of your estimation method and specify if these differ across different R&D assets (if a breakdown is available), industries and/or institutional sectors.

We replied to the Eurostat-OECD Survey of Capital Measures for Research and Development, and Software and Databases.

Question 3. What is the length of GFCF in R&D in your country? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differ across assets within this category, industries and institutional sectors.

GFCF series are available since 2000.

Question 4. What price indices do you use to deflate GFCF in R&D and how do you construct these price indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Average wages of persons engaged in R&D are used to deflate own-account R&D. Implicit deflator of output of activity 72 (GDP by production approach) is used to deflate purchased R&D.

Mineral exploration and evaluation (N1172)

Question 1. Do you estimate GFCF in mineral exploration and evaluation by detailed asset type? If yes, please specify the detailed asset breakdown.

No.

Question 2. What is/are the main source/s to estimate GFCF in mineral exploration and evaluation? Please describe briefly the architecture of your estimation method and specify if these differ across detailed assets within this asset category, industries and/or institutional sectors.

Mineral exploration and evaluation (N1172) covers the costs of drilling and related activities such as surveys. It is included in gross fixed capital formation whether or not the exploration is successful. Mineral exploration is valued taking into account the costs of actual test drillings and borings,

and the costs incurred to make it possible to carry out tests, such as aerial or other surveys. The estimates of mineral exploration are obtained from SBS and state and municipal budget data. In practice, no distinction is made of whether it is purchased or undertaken on own account. For this reason, it is assumed to be purchased and valued at market prices.

Data are taken directly from the data sources. These sources are the same for industries and institutional sectors calculations.

Question 3. What is the length of GFCF in mineral exploration and evaluation? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if these differ across assets within this category, industries and institutional sectors.

GFCF series are available since 1995.

Question 4. What price indices do you use to deflate GFCF in mineral exploration and evaluation and how do you construct these price indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries/institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

Service producer price index for activity 71 is used to deflate GFCF in mineral exploration and evaluation.

Computer software and databases (N1173)

Question 1. Do you produce separate estimates of computer software? Tick all boxes that apply:

We replied to the Eurostat-OECD Survey of Capital Measures for Research and Development, and Software and Databases.

Question 2. What is/are the main source/s to estimate GFCF in computer software and databases? Please describe briefly the architecture of your estimation method and specify if these differ across types of software (see previous question), industries and/or institutional sectors.

We replied to the Eurostat-OECD Survey of Capital Measures for Research and Development, and Software and Databases.

Question 3. What is the length of this GFCF series? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if this differ across assets within this category, industries and institutional sectors.

GFCF series since 1995 are available (own-account software since 2000).

Question 4. What price indices do you use to deflate GFCF in computer software and databases and how do you construct these price indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

The same deflator - weighted average of service producer price indices for activities 62.01 and 63.11 NACE Rev. 2 - is used to deflate GFCF in own-account and purchased software and databases. Information on income of activities 62.01 and 63.11 is used for the weights.

Entertainment, literary and artistic originals (N1174)

Question 1. Do you estimate GFCF in entertainment, literary and artistic by detailed asset type? If yes, please specify the detailed asset breakdown.

Yes, specific breakdown on AN.1174: Films; TV and radio stock programmes; Literary, music and artistic originals.

Question 2. What is/are the main source/s to estimate GFCF in entertainment, literary and artistic originals? Please describe briefly the architecture of your estimation method and specify if these differ across detailed products within this asset category, industries and institutional sectors.

The main sources are: Lithuanian Films Centre data, National Radio and Television of Lithuania (LRT) data, Collective Copyright Management Association (LATGA-A) data. Because of the multiplicity of originals, they are valued using different methods. The production cost approach (including a mark-up for operating surplus for market producers) is applied to estimate the time series of GFCF for films (S11, NACE activity 59).

GFCF for TV and radio stock programmes (S11 and S13, NACE activity 60) is also evaluated by the production costs approach. The main data source is the National Radio and Television of Lithuania (LRT), which is treated as a non-market producer. The estimation is based on the costs of production of LRT stock programmes. An assumption is made that the production costs of a one-hour stock programme are the same for all TV channels. For market producers production costs include a mark-up as an operating surplus component.

The value of literature, music and artistic originals (S14, NACE activity 90) is measured by the net present value of royalty flows.

Question 3. What is the length of GFCF in entertainment, literary and artistic originals? If long GFCF series are available (previous to 1995), how do you estimate historical data? Please, describe additional sources and/or methods, and specify if this differ across assets within this category, industries and institutional sectors.

GFCF series are available since 1995.

Question 4. What price indices do you use to deflate GFCF in entertainment, literary and artistic originals and how do you construct these price indices? How do you account for quality improvements? Do you use specific price indices for detailed asset categories? Do these price indices differ across industries / institutional sectors? If they are available, please provide links to and/or relevant documents and metadata on their construction.

The following consumer price indices: for total cultural services, for cinema, theatres, concert halls, for books, are used to deflate separate components of originals.