

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

Country: Estonia

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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

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 main source for assessing GFCF in the household sector in Estonia is the Building Register. New construction and major repairs are included in this category of assets. New construction and major repairs of the GFCF are divided into apartments, houses and garages. GFCF for own and rental housing is estimated separately. The GFCF for non-residents dwellings is valued by itself. The data source for estimating dwellings in S.11 are the Construction Register and the SBS Survey «EKOMAR». For S.13 the data source is the Public Sector Financial Statements system (PFSF).

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.

The GFCF series start from 1995.

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)?

The ownership transfer costs like the intermediation fees of real estate agents, fees for notaries and legal services, state duties are taken into account. Fees for notaries are calculated using the number and value of notarised purchase-sale real estate contracts (houses and flats). In the estimation of capital stocks of dwellings they are treated equally to GFCF.

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 price index, with additional costs included is used for AN.111.

N1121. Buildings other than dwellings

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.

There are no detailed asset categories. The GFCF calculations are broken down by 7 institutional sectors: S.11, S.12, S.1311, S.1313, S.1314, S.14 and S.15. The breakdown of activities is based on the NACE A*64 industry level. Some levels of the NACE A*64 are broken down further totaling 72 different activities for which GFCF is calculated. The data is not published at such a detailed level. The most detailed data published is available at the Eurostat database.

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.

For non-financial corporations, GFCF is calculated on the basis of the statistical questionnaire "Annual economic indicators of agricultural, forestry and fishing enterprises" and the SBS Survey "EKOMAR". Credit institutions, big leasing companies and pension funds are surveyed, and statistics on them is compiled and published quarterly by Eesti Pank. The rest of the financial intermediaries, financial auxiliaries, and insurance companies are covered by statistical surveys carried out by Statistics Estonia. For the Eesti Pank, data on acquisitions (including major repairs) and disposals by type of fixed assets are obtained from Public Sector Financial Statements system. For the government sector the main data source is the PSFS system.

Data on investments made by sole proprietors are available from the business income declarations provided by the Tax and Customs Board. The breakdown by type of assets (buildings and structures, transport equipment, computers and other machinery and equipment) is estimated using the SBS data on investments for enterprises. It is assumed that sole proprietors have a similar structure of investments to that of enterprises.

GFCF of the NPISH sector is calculated on the basis of the survey of non-profit institutions and institutions' annual statements derived from Commercial Register.

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.

The GFCF series starts from 1995.

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)?

The costs of ownership transfers are included in the GFCF series. As they are included in the data sources as an indistinguishable part of AN.1121, they are treated equally to GFCF.

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 price index (with additional costs included) is used for GFCF in AN.1121.

N1122. Other structures

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.

Roads and bridges are separated from Other structures. In Estonia, 'roads and bridges' are recorded only in the non-financial corporations sector (S.11) and in the government sector (S.13).

The GFCF calculations are broken down by 7 institutional sectors: S.11, S.1311, S.1313, S.1314 and S.14. The breakdown of activities is based on the NACE A*64 industry level. Some levels of the NACE A*64 are broken down further totaling 72 different activities for which GFCF is calculated. The data is not published in such a detailed level. The most detailed data published is available at the Eurostat database.

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.

For non-financial corporations, GFCF is calculated on the basis of the statistical questionnaire "Annual economic indicators of agricultural, forestry and fishing enterprises" and the SBS Survey «EKOMAR». For the government sector the main data source is the PSFS system.

Data on investments made by sole proprietors are available from the business income declarations provided by the Tax and Customs Board. The breakdown by type of assets (buildings and

structures, transport equipment, computers and other machinery and equipment) is estimated using the SBS data on investments for enterprises. It is assumed that sole proprietors have a similar structure of investments to that of enterprises."

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 GFCF series start from 1995.

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)?

The costs of ownership transfers are included in the GFCF series. As they are included in the data sources as an indistinguishable part of AN.1122, they are treated equally to GFCF.

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 price index (with additional costs included) is used for GFCF in AN.1122.

N1123. Land improvements

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, N1123 is included in N112.

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.

In Estonia, estimates for co-operatives of land improvements in the NPISH sector are estimated on the basis of information derived from the statistical survey of non-profit institutions. In addition, agricultural enterprises in non-financial corporations sector are also engaging in land improvements. The estimate of the value of land improvement for S.11 is derived using information from the survey of agricultural, hunting, forestry and fishing enterprises.

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, costs of ownership transfer of land is included in land improvements.

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 price index is used for GFCF in AN.1123.

N1131. Transport equipment

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

For non-financial corporations, GFCF is calculated on the basis of the statistical questionnaire “Annual economic indicators of agricultural, forestry and fishing enterprises” and the SBS Survey “EKOMAR”. Credit institutions, big leasing companies and pension funds are surveyed, and statistics on them are compiled and published quarterly by Eesti Pank. The rest of the financial intermediaries, financial auxiliaries, and insurance companies are covered by statistical surveys carried out by Statistics Estonia. For the Eesti Pank, data on acquisitions (including major repairs) and disposals by type of fixed assets are obtained from Public Sector Financial Statements system. For the government sector the main data source is the PSFS system.

Data on investments made by sole proprietors is available from the business income declarations provided by the Tax and Customs Board. The breakdown by type of assets (buildings and structures, transport equipment, computers and other machinery and equipment) is estimated using the SBS data on investments for enterprises. It is assumed that sole proprietors have a similar structure of investments to that of enterprises.

GFCF of the NPISH sector is calculated on the basis of the survey of non-profit institutions and institutions’ annual statements derived from Commercial Register.

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.

There are no detailed asset categories. The GFCF calculations are broken down by 7 institutional sectors: S.11, S.12, S.1311, S.1313, S.1314, S.14 and S.15. The breakdown of activities is based on the NACE A*64 industry level. Some levels of the NACE A*64 are broken down further totaling 72 different activities for which GFCF is calculated. The data is not published at such a detailed level. The most detailed data published is available at the Eurostat database.

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.

The GFCF series start from 1995.

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.

Import price indices on the level of 2-digit NACE codes. The price index is calculated as $0.8 * \text{Import price index} + 0.2 * \text{Producer price index of NACE C.29}$.

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

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?

For non-financial corporations, GFCF is calculated on the basis of the statistical questionnaire “Annual economic indicators of agricultural, forestry and fishing enterprises” and the SBS Survey “EKOMAR”. Credit institutions, big leasing companies and pension funds are surveyed, and statistics on them are compiled and published quarterly by Eesti Pank. The rest of the financial intermediaries, financial auxiliaries, and insurance companies are covered by statistical surveys carried out by Statistics Estonia. For the Eesti Pank, data on acquisitions (including major repairs) and disposals by type of fixed assets are obtained from Public Sector Financial Statements system. For the government sector the main data source is the PSFS system.

Data on investments made by sole proprietors are available from the business income declarations provided by the Tax and Customs Board. The breakdown by type of assets (buildings and structures, transport equipment, computers and other machinery and equipment) is estimated using the SBS data on investments for enterprises. It is assumed that sole proprietors have a similar structure of investments to that of enterprises.

GFCF of the NPISH sector is calculated on the basis of the survey of non-profit institutions and institutions’ annual statements derived from Commercial Register.

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.

The GFCF series start from 1995.

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.

For ICT equipment, USA's PPI of electronic computers and computer equipment, adjusted to take into account the effects of fluctuations in exchange rates, is used.

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

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?

For non-financial corporations, GFCF is calculated on the basis of the statistical questionnaire “Annual economic indicators of agricultural, forestry and fishing enterprises” and the SBS Survey “EKOMAR”. Credit institutions, big leasing companies and pension funds are surveyed, and statistics on them are compiled and published quarterly by Eesti Pank. The rest of the financial intermediaries, financial auxiliaries, and insurance companies are covered by statistical surveys carried out by Statistics Estonia. For the Eesti Pank, data on acquisitions (including major repairs) and disposals by type of fixed assets are obtained from Public Sector Financial Statements system. For the government sector the main data source is the PSFS system.

Data on investments made by sole proprietors are available from the business income declarations provided by the Tax and Customs Board. The breakdown by type of assets (buildings and structures, transport equipment, computers and other machinery and equipment) is estimated using the SBS data on investments for enterprises. It is assumed that sole proprietors have a similar structure of investments to that of enterprises.

GFCF in the NPISH sector is calculated on the basis of the survey of non-profit institutions and institutions’ annual statements derived from Commercial Register. There are no detailed asset categories.

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.

The GFCF series start from 1995.

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.

Import price indices on the level of 2-digit NACE codes. The price index is calculated as $0.8 * \text{Import price index} + 0.2 * \text{Producer price index of NACE08 C.26, 27, 28, 32}$. Deflator of S.13 NACE O.84 is used for weapon systems.

Cultivated biological resources (N115)

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?

For non-financial corporations, GFCF is calculated on the basis of the statistical questionnaire "Annual economic indicators of agricultural, forestry and fishing enterprises" and the SBS Survey "EKOMAR". Credit institutions, big leasing companies and pension funds are surveyed, and statistics on them are compiled and published quarterly by Eesti Pank. The rest of the financial intermediaries, financial auxiliaries, and insurance companies are covered by statistical surveys carried out by Statistics Estonia. For the Eesti Pank, data on acquisitions (including major repairs) and disposals by type of fixed assets are obtained from Public Sector Financial Statements system. For the government sector the main data source is the PSFS system.

Data on investments made by sole proprietors are available from the business income declarations provided by the Tax and Customs Board. The breakdown by type of assets (buildings and structures, transport equipment, computers and other machinery and equipment) is estimated using the SBS data on investments for enterprises. It is assumed that sole proprietors have a similar structure of investments to that of enterprises.

GFCF of the NPISH sector is calculated on the basis of the survey of non-profit institutions and institutions' annual statements derived from Commercial Register. The cultivated biological resources are divided into "Animal resources yielding repeat products" (N1151) and "Tree, crop and plant resources yielding repeat products" (N1152)."

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.

The GFCF series start from 1995.

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.

The price indices for AN.115 come from agricultural statistics.

Research and development (N1171)

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.

The data series for GFCF start from 1995.

Mineral exploration and evaluation (N1172)

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

Mineral exploration is not evaluated by detailed asset type.

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.

To estimate mineral exploration and evaluation expenditures, two data sources are used:

- Estonian Environmental Agency: data on mineral exploration authorizations;
- Fiscal year reports for enterprises performing mineral exploration and evaluation activity (sales).

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.

The GFCF series start from 1995.

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.

Producer price index for Architectural and engineering services; technical testing and analysis services is used.

Computer software and databases (N1173)

1. 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.

For non-financial corporations, GFCF is calculated on the basis of the statistical questionnaire "Annual economic indicators of agricultural, forestry and fishing enterprises" and the SBS Survey "EKOMAR". Credit institutions, big leasing companies and pension funds are surveyed, and statistics on them are compiled and published quarterly by Eesti Pank. The rest of the financial intermediaries, financial auxiliaries, and insurance companies are covered by statistical surveys carried out by Statistics Estonia. For the Eesti Pank, data on acquisitions (including major repairs) and disposals by type of fixed assets are obtained from Public Sector Financial Statements system. For the government sector the main data source is the PSFS system.

GFCF in the NPISH sector is calculated on the basis of the survey of non-profit institutions and institutions' annual statements derived from Commercial Register. There is no information on intangible assets for the household sector so no estimate is made.

The calculations for own account software are separated from other software. Intermediate consumption expenditures related to software development like management costs, training, personnel management, office requisites, electricity, rent, etc., are used for the calculation of own-account software production. The Structure of Earnings Survey conducted by Statistics Estonia every four years and the Structural Business Statistics are used as the main data sources for own account software calculations.

2. 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.

The GFCF series start from 1995.

3. 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.

USA's PPI of software publishers, adjusted with exchange rate changes is used for computer software.

Entertainment, literary and artistic originals (N1174)

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

Detailed information is available from the GNI inventory:
<https://www.stat.ee/dokumendid/956100>, pages 377-382.

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.

Detailed information is available from the GNI inventory
(<https://www.stat.ee/dokumendid/956100>, pages 377-382.

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.

The GFCF series start from 1995.

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 deflators of NACE J.58-59-60, R.90 is used for AN.1174.