

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

Country: Finland

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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.

Institutional sectors S11, S14 & S15: Volume index of new building, refurbishment of dwellings, commission and asset transfer costs. See chapter '5.10.3.1 N111 Residential buildings'
http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf.

Institutional sectors S1311, S1313, S13141: administrative records.

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 for N111 cover years 1920-2018.

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)?

Costs of ownership transfer are included in 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.

GFCF in 'N111' is sum of products 'newbuilding', 'refurbishment', 'commissions' and 'transfer costs'. Price index for N111 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N111 price as far as product related prices cover for those quality improvements.

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.

N1121 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see:

http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf , chapters 5.10.2 - 5.10.3.

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.

See answer to the previous 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 for N1121 cover years 1920-2018.

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.

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.

GFCF in 'N1121' is sum of products 'newbuilding', 'refurbishment', 'commissions' and 'transfer costs'. Price index for N1121 is constructed within supply and use table compilation process, where each

'product' has its price. Quality improvements are included in N1121 price as far as product related prices cover for those quality improvements.

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.

N1122 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see: http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf, chapters 5.10.2 - 5.10.3.

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.

http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf

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.

GFCF series for N1122 cover years 1920-2018.

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)?

No.

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.

GFCF in 'N1122' is sum of various products, which vary between institutional sector and industry. Price index for N1122 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1122 price as far as product related prices cover for those quality improvements.

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.

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.

N1123 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see: http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf, chapters 5.10.2 - 5.10.3.

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?

No.

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.

GFCF in 'N1123' is sum of various products, which vary between institutional sector and industry. Price index for N1123 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1123 price as far as product related prices cover for those quality improvements.

N1131. Transport equipment

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

N1131 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf chapters 5.10.2 - 5.10.3.

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.

See answer to the previous 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 for N1131 cover years 1920-2018. In case of shorter GFCF series in some industry, historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N1131' is sum of various products, which vary between institutional sector and industry. Price index for N1131 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1131 price as far as product related prices cover for those quality improvements.

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?

N1132 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see: http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf, chapters 5.10.2 - 5.10.3.

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 for N1132 cover years 1982-2018. Historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N1132' is sum of various products, which vary between institutional sector and industry. Price index for N1132 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1132 price as far as product related prices cover for those quality improvements.

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?

N1139 and N114 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see: http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf , chapters 5.10.2 - 5.10.3.

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 for N1139 cover years 1920-2018 and for N114 years 1960-2018. In case of shorter GFCF series in some industry, historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N1139' is sum of various products, which vary between institutional sector and industry. Price index for N1139 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1139 price as far as product related prices cover for those quality improvements.

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?

N115 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see: http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf , chapters 5.10.2 - 5.10.3.

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 for N115 cover years 1975-2018. In case of shorter GFCF series in some industry, historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N115' is sum of various products, which vary between institutional sector and industry. Price index for N115 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N115 price as far as product related prices cover for those quality improvements.

Research and development (N1171)

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

For N1171 calculations see chapter 5.10.3.8 in http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf.

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.

For N1171 calculations see chapter 5.10.3.8 in http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf.

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 for N1171 cover years 1975-2018. In case of shorter GFCF series in some industry, historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N1171' is sum of various products, which vary between institutional sector and industry. Price index for N1171 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1171 price as far as product related prices cover for those quality improvements.

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.

N1172 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf, chapters 5.10.2 - 5.10.3.

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.

See: http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf, chapters 5.10.2 - 5.10.3.

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 for N1172 cover years 1975-2018. In case of shorter GFCF series in some industry, historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N1172' is sum of various products, which vary between institutional sector and industry. Price index for N1172 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1172 price as far as product related prices cover for those quality improvements

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.

N1173 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf, chapters 5.10.2 - 5.10.3.

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.

GFCF series for N1173 cover years 1975-2018. In case of shorter GFCF series in some industry, historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N1173' is sum of various products, which vary between institutional sector and industry. Price index for N1173 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1173 price as far as product related prices cover for those quality improvements.

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.

N1174 series are broken down by industry and institutional sector. Institutional sectors have various information sources, see http://stat.fi/til/vtp/vtp_2015_2016-06-02_men_001_en.pdf, chapters 5.10.2 - 5.10.3.

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.

See answer to the previous 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 for N1173 cover years 1975-2018. In case of shorter GFCF series in some industry, historical series backwards for Capital Stock purposes are constructed with smoothly declining volume changes.

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.

GFCF in 'N1174' is sum of various products, which vary between institutional sector and industry. Price index for N1174 is constructed within supply and use table compilation process, where each 'product' has its price. Quality improvements are included in N1174 price as far as product related prices cover for those quality improvements.