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

Country: Slovenia

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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 <u>European System of Accounts 2010</u> (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.

For households' GFCF in dwellings estimates are based primarily on construction statistics data (building permits). For other sectors of the economy the main source for their GFCF in dwellings is the Survey on Gross Fixed Capital Formation (INV survey). GFCF survey data is available at the level of statistical unit to which the sector and industry variables are assigned from the business register. Asset category Dwellings is measured as a single category defined according to ESA 2010. Households dwellings include purchases of dwellings, own-account construction, renovation of dwellings and ownership transfer costs. As mentioned sources differ for the household sector and the related real estate activity.

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.

The length of the GFCF series is from 1995 onwards.

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)?

The costs of ownership transfer are included in GFCF. They are by definition included in the value of the purchased assets reported in the GFCF survey and for dwellings of the household sector they are estimated separately. In the estimation of capital stock of dwellings they are treated equally to GFCF.

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.

Each component of GFCF in dwellings by the household sector is deflated separately; i.e. own-account construction, renovations of dwellings, purchases of dwellings and transfer costs. Different combinations of construction price indices are used, provided by the Construction and Building Materials Association of Slovenia. There are no specific adjustments for quality changes. Price indices do not differ across industries or sectors, except in the case of household sector and the related real estate activity L.

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.

GFCF in non-residential buildings is measured as a single category. Since the GFCF survey data is available at the level of statistical unit, GFCF series are broken down by industry and sector

The data are available in the SIStat database (National accounts/GDP, annual data/Gross capital formation by activity and by type):

https://pxweb.stat.si/SiStatDb/pxweb/en/20 Ekonomsko/20 Ekonomsko 03 nacionalni racuni 05 03019 BDP letni/0301950S.px/

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.

The main source for annual estimation of GFCF is the Survey on Gross Fixed Capital Formation (INV survey). For the household sector the construction of business premises of the self-employed and the construction of agricultural buildings is estimated based on construction statistics.

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.

The length of the GFCF series is from 1995 onwards.

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)?

The costs of ownership transfer are included in GFCF. They are by definition included in the value of the purchased assets reported in the GFCF survey and treated equally to GFCF in the estimation of capital stock.

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.

Different combinations of construction price indices provided by the Construction and Building Materials Association of Slovenia are used. We do not make quality adjustments. GFCF in non-residential buildings is measured as a single category. Price indices do not differ across industries/sectors.

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.

GFCF in other structures is measured as a single category. The data series are broken down by industry and sector. The data are available in the SIStat database (National accounts/GDP, annual data/Gross capital formation by activity and by type):

https://pxweb.stat.si/SiStatDb/pxweb/en/20 Ekonomsko/20 Ekonomsko 03 nacionalni racuni 05 03019 BDP letni/0301950S.px/.

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.

The main source for annual estimation of GFCF is the Survey on Gross Fixed Capital Formation (INV survey). Sources do not differ across industries/sectors.

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 GFCF series is from 1995 onwards.

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)?

The costs of ownership transfer are included in GFCF. They are by definition included in the value of the purchased assets reported in the GFCF survey and treated equally to GFCF in the estimation of capital stock.

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.

Different combinations of construction price indices provided by the Construction and Building Materials Association of Slovenia are used. We do not make quality adjustments. GFCF in other structures is measured as a single category. Price indices do not differ across industries/sectors.

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 <u>improvements</u> (N1123)?

Yes.

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 main source for annual estimation of GFCF in land improvements is the Survey on Gross Fixed Capital Formation (INV survey). Sources do not differ across industries/sectors.

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, the costs of ownership transfer of land are added to land improvements.

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.

The price index for other engineering constructions provided by the Construction and Building Materials Association of Slovenia is used. The costs of ownership transfer of land are deflated with general CPI. Price indices do not differ across industries/sectors.

N1131. Transport equipment

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

The main source for annual estimation of GFCF in transport equipment is the Survey on Gross Fixed Capital Formation (INV survey). The additional source to estimate GFCF in cars of unincorporated enterprises is the car registration data from the vehicle register.

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.

GFCF in transport equipment is comprised of three categories: personal cars; freight and commercial vehicles (trucks and lorries); other vehicles and vessels. The series are broken down by industry and sector. The data are available in the SIStat database (National accounts/GDP, annual data/Gross capital formation by activity and by type):

https://pxweb.stat.si/SiStatDb/pxweb/en/20 Ekonomsko/20 Ekonomsko 03 nacionalni racuni 05 03019 BDP letni/0301950S.px/.

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.

The length of the GFCF series is from 1995 onwards.

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.

The GFCF in personal cars is deflated with CPI on new personal cars, GFCF in freight and commercial vehicles is deflated with the import price index of motor vehicles and the GFCF in other vehicles and vessels is deflated with the import price index of other vehicles and vessels. We do not make quality adjustments. Price indices do not differ across industries/sectors.

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?

The main source for annual estimation of GFCF in ICT equipment is the Survey on Gross Fixed Capital Formation (INV survey). There are only two asset categories namely computers and communication and electronic devices.

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.

The length of the GFCF series is from 1995 onwards.

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.

To deflate GFCF in computers the US PPI for computer & peripheral equipment is used. To deflate telecommunications the domestic PPI in production of radio-television and similar equipment is used. We do not make quality adjustments. Price indices do not differ across industries/sectors.

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?

The main source for annual estimation of GFCF is the Survey on Gross Fixed Capital Formation (INV survey). There are specific GFCF series for metal products, machinery and equipment for general purposes, other special-purpose machinery, military weapons systems, agricultural and forestry machinery, electrical appliances, electro-medical and therapeutic and radiation devices, furniture and other equipment.

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.

The length of the GFCF series is from 1995 onwards.

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.

Specific price indices for detailed asset categories are used i.e. PPI in production of machinery and equipment; PPI in production of metal products, PPI in production of electrical machinery and appliances, CPI for medical and therapeutic products, PPI in furniture production and implicit deflator of transport equipment for weapons systems. We do not make quality adjustments. Price indices do not differ across industries/sectors.

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?

GFCF of individual farmers in cultivated biological resources is estimated with data of the Economic Accounts for Agriculture. For other sectors of the economy the main source is the Survey on Gross Fixed Capital Formation (INV survey). Only two categories are measured i.e. multi-annual plantations and basic herd.

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.

The length of the GFCF series is from 1995 onwards.

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 measures of GFCF of individual farmers are obtained from the Economic Accounts for Agriculture. In case of other sectors the deflator for the GFCF in basic herd is the import price index in livestock breeding. For GFCF in plantations the combination of input price index for seeds and seedlings and construction price index is used. We do not make quality adjustments. Price indices do not differ across industries/sectors apart from household sector (individual farmers) in the activity of Agriculture.

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.

No.

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.

The main source for estimating R&D is the Frascati Manual (FM) survey of R&D performers. The estimation follows the sequence in Eurostat R&D Manual tables 5.1 and 5.2, starting from FM data at the level of statistical unit, aggregated by sector and industry. Then all relevant adjustments in the template tables are applied to calculate output and GFCF, taking into account the sales and purchases between residents to allocate R&D to user sectors. The estimation is the same for all industries and institutional sectors. Breakdown is available by industry and sector, but not by type of R&D asset.

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.

The length of the GFCF series is from 1995 onwards.

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.

Own-account GFCF in R&D in volume terms is measured by sum of production cost components in volume terms. For the input components the deflators and volume measures from the regular constant price estimation of national accounts are used. For the purchased R&D the implicit deflator of total R&D output is used. We do not make quality adjustments. Price indices do not differ across industries/sectors.

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.

GFCF in mineral exploration is irrelevant for Slovenia (there are no undiscovered mineral reserves).

Computer software and databases (N1173)

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

Separate estimates are made for purchased and own-account software.

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.

GFCF in software and databases is comprised of the purchased and own-account GFCF. The GFCF in purchased software is measured with the GFCF survey which includes questions on purchases of new and used software and databases and on disposals of the same. GFCF in own-account software and databases is estimated with the use of data on the number of IT experts, the average share of their time dedicated to own-account software and database development, and the average annual output per IT expert. The estimation is made on the level of NACE industries and sectors.

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.

The length of the GFCF series is from 1995 onwards.

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.

For purchased software and databases the US PPI for software publishing is used. For own-account software the domestic producer price index for computer programming services is used. We do not make quality adjustments. Only those two mentioned asset categories are measured. Price indices do not differ across industries/sectors.

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.

No, GFCF in ELA originals is measured with the GFCF survey as a single item.

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 source is the Survey on GFCF (INV survey). The reporting units are asked to report the rights associated with original works and to value self-created films and radio and TV-programmes at costs of their production and to value other originals in royalties estimated to be earned in total.

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.

Length of the GFCF series is from 1995 onwards.

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.

In Slovenia ELA originals are a relatively small category mainly related to book publishing so CPI for books is used. We do not make quality adjustments. Price indices do not differ across industries/sectors.