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

Country: Malta

Date: August 2019

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.

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:

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.

Dwellings' are inclusive of repairs and maintenance and transfer costs. The main data sources are:

- the number of permits granted yearly by the Malta Environment and Planning Authority (MEPA);
- the 'Census of Population and Housing' (CPH);
- Architect's construction costs; and
- the 'Household Budgetary Survey' (HBS).

Sources do not differ across industries or sectors.

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.

Data is not available prior 1995.

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)?

Costs of ownership transfers are included in GFCF. Capital stocks of dwellings as presently transmitted in Table 2600 do not include costs of ownership transfers. These will be included in the next benchmark revision. Given that costs of ownership transfers in case of dwellings are separately disclosed in GFCF the average service life will differ from that of dwellings.

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.

Type of price index: Quarterly purchase price index

Construction of the price index: The price per sqm is derived from the estimated value of dwellings in GFCF and the number of sqm meters built (STS data). There is no account for quality improvements.

Use of specific price indices for detailed asset categories: The price per sqm is computed for houses and for flats. There is no distinction between industries and sectors."

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.

Buildings other than dwellings are split into: Non-residential buildings; Construction works of non-residential buildings. GFCF is split by industry and by sector. Refer to the GNI Inventory of Malta published in 2015 (https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_A1/National_Accounts/Documents/GNI_Inventory.pdf), para. 5.10.3.11 to 5.10.3.17.

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.

NACE Sections B to N excluding K are covered by the Structural Business Survey. NACE Sections A, K, PQRS are covered by annual accounts and financial statements or specific survey. Data in relation to the General Government Sector is derived from Public Finance 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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994. GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12), households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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)?

Costs of ownership transfers are included in GFCF, but unlike dwellings these cannot be separately identified and thus the average service life/depreciation profile is the same as that of the asset itself.

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.

Type of price index: Construction cost index (Short-term statistics).

Construction of the price index: Quarterly Laspeyres price index based on labour and material price indices. There is no account for quality improvements. No specific price indices for detailed asset categories. There is no distinction between industries and 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.

In the current methodology, GFCF of other structures include CPA 42 (total) and CPA 43 (total). In the next benchmark, roads will be considered separately. GFCF is split by industry and by sector.

Refer to the GNI Inventory of Malta published in 2015 (https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_A1/National_Accounts/Documents/GNI_Inventory.pdf), 10.3.11 to 5.10.3.17.

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.

NACE Sections B to N excluding K are covered by the Structural Business Survey. NACE Sections A, K, PQRS are covered by annual accounts and financial statements or specific survey. Data in relation to the General Government Sector is derived from Public Finance Statistics.

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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994. GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12), households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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)?

Costs of ownership transfers are included in GFCF, but unlike dwellings these cannot be separately identified and thus the average service life/depreciation profile is the same as that of the asset itself.

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.

Type of price index: Construction cost index (Short-term statistics).

Construction of the price index: Quarterly Laspeyres price index based on labour and material price indices. There is no account for quality improvements. No specific price indices for detailed asset categories. There is no distinction between industries and 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 improvements (N1123)?

Land improvements is included under Other buildings and structures.

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.

NACE Sections B to N excluding K are covered by the Structural Business Survey. NACE Sections A, K, PQRS are covered by annual accounts and financial statements or specific survey. Data in relation to the General Government Sector is derived from Public Finance Statistics.

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?

Costs of ownership transfers are included in GFCF, but unlike dwellings these cannot be separately identified and thus the average service life/depreciation profile is the same as that of the asset itself.

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.

Type of price index: Construction cost index (Short-term statistics). Construction of the price index: Quarterly Laspeyres price index based on labour and material price indices. No specific price indices for detailed asset categories. There is no distinction between industries and sectors."

N1131. Transport equipment

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

NACE Sections B to N excluding K are covered by the Structural Business Survey and imports data. NACE Sections A, K, PQRS are covered by annual accounts and financial statements or specific

survey. Data in relation to the General Government Sector is derived from Public Finance Statistics.

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.

Transport equipment is split: motor vehicles; ships; railway locomotives; aircrafts; other transport. It is broken down by industry and by sector. Refer to the GNI Inventory - https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_A1/National_Accounts/Documents/GNI_Inventory.pdf.

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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994. GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12), households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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.

Type of price index: Unit value indices.

Construction of the price index: UVI of products related to machinery and transport equipment in trade statistics are used. The quarterly UVIs are then smooth with Ecotrim to reduce the intra-annual volatility.

Account for quality improvements: Products for which the price changes varies by less or more than twice its price in the previous year is discarded. Ships and aircraft products are discarded as well as chipsets and electronic components used for intermediate consumption.

Use of specific price indices for detailed asset categories: Each HS code has a price if the product has been traded in the base and the current periods. There is no distinction between industries and 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?

NACE Sections B to N excluding K are covered by the Structural Business Survey and imports data. NACE Sections A, K, PQRS are covered by annual accounts and financial statements or specific survey. Data in relation to the General Government Sector is derived from Public Finance Statistics.

GFCF is split in CPA 26.1, 26.2 and CPA 26.3 by industry and by sector.

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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994. GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12), households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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.

Type of price index: Unit value indices.

Construction of the price index: UVI of products related to machinery and transport equipment in trade statistics are used. The quarterly UVIs are then smooth with Ecotrim to reduce the intra-annual volatility.

Account for quality improvements: Products for which the price changes varies by less or more than twice its price in the previous year is discarded. Ships and aircraft products are discarded as well as chipsets and electronic components used for intermediate consumption.

Use of specific price indices for detailed asset categories: Each HS code has a price if the product has been traded in the base and the current periods. There is no distinction between industries and sectors.

Other machinery and equipment and weapons systems (N11O): 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?

NACE Sections B to N excluding K are covered by the Structural Business Survey and imports data. NACE Sections A, K, PQRS are covered by annual accounts and financial statements or specific survey. Data in relation to the General Government Sector is derived from Public Finance Statistics. GFCF is split by industry and by sector. Detailed GFCF by asset is available.

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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994. GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12),

households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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.

Type of price index: Unit value indices.

Construction of the price index: UVI of products related to machinery and transport equipment in trade statistics are used. The quarterly UVIs are then smooth with Ecotrim to reduce the intra-annual volatility.

Account for quality improvements: Products for which the price changes varies by less or more than twice its price in the previous year is discarded. Ships and aircraft products are discarded as well as chipsets and electronic components used for intermediate consumption.

Use of specific price indices for detailed asset categories: Each HS code has a price if the product has been traded in the base and the current periods. There is no distinction between industries and 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?

For the private sector, GFCF data is available from the Agriculture Unit and is split in different categories by industry and by sector. For the public sector, GFCF data is available from the Public Finance Unit by asset and by industry.

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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994.

GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12), households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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.

Type of price index: Overall HICP

Construction of the price index: Quarterly Laspeyres price index.

No account for quality improvements. No specific price indices for detailed asset categories.

No distinction between industries and sectors.

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.

Total R&D is compiled.

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 data sources for the national accounts' estimate are R&D expenditure presented in the Frascati tables. R&D expenditures are classified in four sectors: Government Sector (GovERD), Business Enterprise Sector (BERD), Higher Education Sector (HERD) and Private non-profit Sector (PNP). The data are compiled in line with the Frascati Manual by the Public Finance Unit and the Business Registers Unit and published annually.

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.

R&D expenditure, in line with the Frascati Manual , are available for years 2005-2012. For the market producers the R&D Output to GDP ratio was derived in 2005 and applied backwards to 1995. Similarly, the GFCF in R&D to total GFCF ratio was derived to extrapolate the GFCF on R&D. Back casting for non-market producers was constructed combining GovERD and HERD Frascati expenditure and University of Malta (UoM) financial accounts. Data of UoM were applied to extrapolate backward

Frascati expenditure of non-market producers. R&D output of non-market producers was extrapolated backwards as a percentage of the estimated Frascati expenditure. GFCF on R&D as a percentage of output of R&D was applied to extrapolate GFCF of non-market producers. Both ratios applied for the back casting constitute the average of ratios between years 2005-2012. "

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.

Type of price index: Overall HICP

Construction of the price index: Quarterly Laspeyres price index.

No account for quality improvements. No specific price indices for detailed asset categories.

No distinction between industries and 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 includes mineral exploration.

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.

These one-off events are generally covered through annual accounts and financial statements.

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.

Data is included in specific years.

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.

Type of price index: Construction cost index (Short-term statistics)

Construction of the price index: Quarterly Laspeyres price index based on labour and material price indices.

There is no account for quality improvements. No specific price indices for detailed asset categories.

There is no distinction between industries and sectors.

Computer software and databases (N1173)

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

A separate breakdown exists for 'purchased software' 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.

Separate estimates are derived for purchased software and own-account software. For purchased software, the method uses sales data, and derives a figure for purchased GFCF as a residual in a commodity flow approach. For own-account software (absent by definition from sales statistics), the method is based on a macro-estimate of labour costs, plus a mark-up. Purchased computer software is allocated across industries according to the level of investment in office machinery and computers (CPA 26). Reliable demand side information is available for the general government sector (S.13). Own-account produced software is allocated according to the industries employing the computer specialists.

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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994. GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12), households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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.

Type of price index: Overall HICP

Construction of the price index: Quarterly Laspeyres price index.

No account for quality improvements. No specific price indices for detailed asset categories. No distinction between industries and 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.

GFCF includes entertainment, literary and artistic. 'Entertainment, literary or artistic originals' includes estimates for:

− Motion picture and videos and includes fiction, drama, documentaries, history and education programmes;
− Television and radio programmes and includes fiction, drama, documentaries, history and education programmes;
− Royalties; and
− Literary originals as from 2014.

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.

Sources include; Business Register, financial statements, administrative sources.

Information on the compilation of Entertainment originals is found in the GNI Inventory, para. 5.10.3.61 to 5.10.3.69:

https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_A1/National_Accounts/Documents/GNI_Inventory.pdf.

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.

For General Government, GFCF is available from 1919 and has been collected from administrative records achieved at the National Library (from 1919 to 1975 - the main sources being the Government Department Reports and Government Statements of Expenditure; from 1977 to 1994 - using the Government Financial Report; from 1995 onwards - from Public Finance Unit). GFCF for other sectors is available from 1954.

In the old approach, based on SNA 1953, data compilation was neither by activity and by sector nor by product. NSO collected GFCF data by industry (at 2-digit) and by asset from 1995 onwards. When comparing 1995 to 2003, it was noted that previous GFCF was over-estimated by average 1.7%. Following this result, back series of GFCF was revised downwards by 1.7% for the years 1954 to 1994. GFCF by the general government sector (S.13) was deducted from the new backdated GFCF series (1954 to 1994), since data for S.13 was available direct from the sources explained above. The residual, was then sub-divided into: NPISHs sector (2%); Financial corporations sector (2%); Non-financial corporations sector (63%); and Households sector (33%). Total GFCF for NPISHs (S.15), financial corporations (S.12), households (S.14) and non-financial corporations (S.11) was further subdivided by asset. For each sector, the corresponding asset breakdown available in 1995 has been applied.

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.

Type of price index: Overall HICP

Construction of the price index: Quarterly Laspeyres price index. No account for quality improvements.

No specific price indices for detailed asset categories. No distinction between industries and sectors.