

Proposed Recommendations Document:

1.11 Identifying, valuing, and reporting government data assets

Summary Details

Links to Related Guidance/Discussion/Issue Notes and Latest Manuals: GN DZ.6 Identifying, valuing and reporting government data assets Draft 2025 SNA and Draft BPM7 Global Consultation(s): SNA Consultations: October 2022; May 2022 Discussions at the Advisory Expert Group on National Accounts (AEG) / Balance of Payments Committee (BOPCOM) Meeting(s): AEG: October 2024; July 2024; October 2023; March 2023; March 2023; July 2022; April/May 2022; April 2021; October 2020; October 2019

To be determined

Summary of Proposed Recommendations:

Discussions at GFSAC Meeting(s):

The proposed recommendation is to expand the asset boundary under the *GFSM 2014* to include data as an asset, under (produced) fixed asset, aligning with the draft *2025 SNA*. Data assets include those that are produced on an own-account basis or purchased on the market, intended for repeated or continuous use for a period greater than one year. Under the proposals, government data assets can broadly be considered to include (but are not limited to) data gathered to enhance the delivery of public services over longer periods, as well as official statistics made freely available to the rest of the economy. Although the government may not derive direct financial benefit from freely available data, the production and dissemination of the data represents government output. However, given the complexities, a key proposal is to conduct further research (through a discussion note) to more fully consider the implications of including data in the asset boundary of the updated GFSM and application of the draft *2025 SNA* on fiscal statistics.

Background and Issues

1. Data plays a crucial role in a wide range of productive activities throughout the whole economy, where it is both consumed and repeatedly used in production processes. In the *GFSM 2014* and other macroeconomic statistics manuals such as the *2008 SNA*, data is not recognized as a standalone asset; instead, it is considered in the valuation of other intellectual property products such as databases. In valuing database assets, the costs associated with preparing data in a format that conforms to a

database are included, however, the costs associated with acquiring or producing the data are excluded. Instead, these are recorded as intermediate consumption, which implies that the data itself is not regarded as meeting the asset boundary under the 2008 SNA. Given the presence of data in many aspects of the modern economy and its potential to generate significant economic benefits, this treatment is seen as inadequate.

- 2. Recognizing these limitations, the draft 2025 SNA introduces data as a standalone asset in macroeconomic statistics for the first time. It defines data as "information content that is produced by accessing and observing phenomena¹, and recording, organizing, and storing information elements from these phenomena in a digital format, which provide an economic benefit when used in productive activities" (draft 2025 SNA, para. 22.22). To realize the economic benefits of data assets, producers must be able to "extract insights and knowledge via the analysis of the data" (draft 2025 SNA, para. 22.24) for more than one year or by selling the data. Consequently, not all forms of data qualify as economic output nor as data assets, for instance, non-digital data, ancillary data inputs, or data used repeatedly for less than a year do not meet the characteristics of data assets.
- 3. All sectors of the economy can produce data and use data in production, including the government sector. The total output of data in the economy or in a sector includes data produced on an own account basis as well as data purchased in market transactions. Government produced data may include both publicly available data and non-publicly available data since both are considered as contributing to the output of the government sector. Governments typically produce a wide range of official statistics, which are made freely available for use by all sectors of the economy. While some data is publicly available, it does not negate the ownership of the data by the government. Although the government may not derive direct financial benefit from the data, the production and dissemination of such official data represents government output.
- 4. However, the delineation with government administrative data needs to be explored further. For example, data compiled by the tax authority not only determines tax liabilities for collection but can also be analyzed to improve the efficiency of tax collection or to assess the impacts of tax policy changes, therefore providing future economic benefits to the government. Similar arguments are included in the draft Handbook on Measuring Data in the System of National Accounts. As such, further consideration is needed to establish when administrative data is considered a data asset, for example budget data or other similar data.
- 5. Although they are conceptually distinct types of intellectual property products, the draft 2025 SNA categorizes data and databases as a single asset an approach followed as a result of similar production inputs and production processes, leading to difficulty in their separate measurement. The draft 2025 SNA (paras. 11.115-11.117) also recommends a sum of costs approach for valuing own-account data production across all sectors of the economy. This methodology will be further detailed in the forthcoming Handbook on Measuring Data in the System of National Accounts, whose draft notes that most data is produced for own-account use. Data and databases for sale should be valued at their market price (draft 2025 SNA, para. 11.118).

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¹ Observable phenomena (OP) are a fact or situation whose characteristics or attributes may be recorded and are generally considered to be outside of the asset boundary of the SNA for practical reasons. Although OP are regarded as nonproduced it has no value, except if they are purchased. These explicit purchases are considered as either purchase of a service or payment of rent for the right to access specific OP. Therefore, OP is not recorded as an asset in the draft *2025 SNA*.

Proposed Recommendations

- 6. Expand the asset boundary under *GFSM 2014* to include data, in line with the draft *2025 SNA*. In doing so, the guidance should reflect the following broad principles:
 - a. Government data assets include own-account data assets and purchased data for use in production, repeatedly or continuously for more than one year. Costs incurred on data used in less than one year should be recorded as use of goods and services expense.²
 - b. Own-account data assets produced by the government sector should be valued using the sum of costs approach taking into consideration the draft 2025 SNA guidance on the inclusion of return on capital. The Handbook on Measuring Data in the System of National Accounts should be consulted for detailed methodological guidance in valuing these data assets.
 - c. Compensation of employees (remuneration of employees), use of goods and services and consumption of fixed capital incurred during own-account capital formation of data should be excluded from expense and recorded as a component of the cost of the acquisition of the produced nonfinancial asset.³
 - d. Both publicly available data and non-publicly available data produced by the government that are considered data assets should be valued using the sum of costs approach. While, data and databases purchased by the government should be valued at their market price.
- 7. Conduct further research (through a discussion note) to more fully consider the implications of inlcuding data in the asset boundary of the updated GFSM and application of the draft 2025 SNA on fiscal statistics. This includes, but is not limited to the delineation between government's administrative information and data assets; government costs associated with the production of data assets; interactions between sub-sectors of the public sector and more.

Rationale for Proposed Recommendations

- 8. The proposed recommendations aim to harmonize the updated GFSM with the 2025 SNA, a key objective of the GFSM 2014 update process. Additionally, the proposed recommendations consider issues unique to the government sector, particularly in the production and dissemination of freely available official statistics, which can constitute significant data assets. They also consider the treatment of own-account capital formation in GFSM 2014, which differs to the treatment in the 2008 and draft 2025 SNA.
- 9. Similar to the draft 2025 SNA, the proposed recommendations focus primarily on the conceptual aspects of expanding the asset boundary to include data. Additional compilation guidance is being developed in the Handbook on Measuring Data in the System of National Accounts, however, there may be a need for further clarifications of the practical challenges for implementation in the public sector. This

² The *Handbook on Measuring Data in the System of National Accounts* provides some flexibility, giving compilers the option to treat all output/purchases as being capitalized in case information to make the split is not available.

³ The treatment of own-account capital formation in *GFSM 2014* is described in paras. 6.9, 6.27, 6.53 and Box A7.1.

includes delineating between government's administrative information and data assets as well as guidance on where countries may need to rely on national accounts estimates, or consider conducting further research.

Proposed Text for GFSM Update

- 10. At minimum, the draft 2025 SNA text in paras. 11.114-11.118 and 22.21-22.32 should be introduced as relevant into the updated *GFSM*, revising the current text in para. 7.64, 7.69-7.70 and 8.40, which discusses computer software and databases. The *GFSM* drafters and editors should consider introducing additional text discussing government data assets (e.g., paragraph 3 in this document) and to reflect the proposed recommendations.
- 11.114 Data and databases consist of electronic files of data, including the information content (i.e., the data themselves), organized in such a way as to permit resource-effective access and use of the data, either for own use in production for more than one year, or for sale as an item or for sale by means of a licence to access the information contained. The standard conditions apply for when an own-use database, a purchased database or the licence to access a database constitutes an asset.
- 11.115 Data and databases are conceptually distinct types of intellectual property products, but they are produced using similar inputs and measuring them separately is often difficult. Moreover, transactions in databases generally include the value of the data stored in the database. Data and databases are therefore combined into a single detailed class of intellectual property product. The creation of data and databases will generally have to be estimated by a sum of costs method. (See paragraphs 22.21 to 22.32 for more information.)
- 11.116 The cost of the database management system (DBMS) used should not be included in the costs of creating a database, but be treated as a computer software asset unless it is used under an operating lease. The cost of preparing data in the appropriate format is included in the cost of the database but not the cost of acquiring or producing the data (see below). Other costs will include staff time estimated on the basis of the amount of time spent in developing the database, an estimate of the capital services of the non-financial assets used in developing the database and costs of goods and services used as intermediate consumption.
- 11.117 The main cost elements related to data consist of the costs of planning, preparing and developing a data production strategy; the costs associated with accessing, recording and storing information embedded in observable phenomena, which may include, but is not limited to, explicit purchases related to accessing observable phenomena or already produced data; and the costs associated with processing and cleaning the data to allow for incorporation into a database and subsequent use in productive activities.
- 11.118 Data and databases for sale should be valued at their market price, which includes the value of the information content. If the value of a software component is available separately, it should be recorded as the sale of software.

Additional References

• Handbook on Measuring Data in the System of National Accounts