NATIONAL STATISTICIAN'S COMMITTEE FOR ADVICE ON STANDARDS FOR ECONOMIC STATISTICS

20 January 2025

NSCASE Advice – Deviation from International statistical guidance

Advice Paper

NSCASE(25)01

Executive summary

1. Ahead of the March 2025 UNSC meeting, NSCASE is seeking to review its advice and recommendations provided to the National Statistician, since the first NSCASE meeting in 2022Q1. The review is prompted by a need to ensure that the advice remains relevant and can be used by the National Statistician in consideration of the adoption of SNA 2025.

2. NSCASE will focus this review on advice which advocates the ONS deviating from international statistical guidance. NSCASE will also consider the comments and feedback provided by other NSIs and multilateral statistical agencies on the core chapters of SNA 2025, to ensure that the National Statistician's brief ahead of the UNSC meeting is exhaustive.

3. ONS asks NSCASE Committee members to review the content of this paper. Members are also invited to identify any areas of concern to them which are not mentioned in this paper.

4. Specifically, the ONS would like the Committee's views on:
    a. **Whether advice provided by NSCASE continues to be relevant in the context of considering the adoption SNA 2025.**

    b. **If there are other areas of concern not yet discussed by the Committee, the National Statistician should be made aware of ahead of March's UNSC meeting.**

5. As with previous 2025 SNA/BPM 7 content brought before the Committee, the official consultation deadline has passed and therefore the opportunity to feed back to the paper editors is not possible at this stage.

Introduction

6. In its governance role of UK economic statistics, NSCASE advises the National Statistician on economic matters relevant to the ONS, including making recommendations and providing advice on the adoption of appropriate international statistical standards, the selection of which ensure that UK economic statistics are world leading.

7. Since its inception in 2022, the Committee has reviewed numerous statistical measurement issues, including, but not limited to, the use of the unit Value

UK Statistics Authority

method in the construction of price indices and the treatment of Public and Private Partnerships and non-monetary gold in the National Accounts.

8. Each of these measurement concepts has been considered in the light of international guidance. Where appropriate however, the Committee has advised the National Statistician to deviate from these guidelines to ensure that the “best estimate” of the statistical concept under consideration, can be achieved.

ONS Considerations

9. To ensure that the National Statistician is fully briefed ahead of the March 2025 UNSC meeting, NSCASE has decided to review all its historical recommendations and the comments of international partners on the core chapters of SNA 2025. The purpose of this review will be to make certain that these recommendations continue to be appropriate in the current economic and statistical measurement climate, and to ensure all possible areas of deviation from statistical guidance have been identified, thereby ensuring that National Statistician is fully informed in his consideration of the adoption of SNA 2025.
10. Specifically, NSCASE will focus this review on recommendations and advice which has advocated ONS deviate from international statistical guidance. The outcome of this review will provide the National Statistician with the mandate for accepting, in full, or in part, SNA 2025 for the UK.
11. To aid this review, the details of each of NSCASE’s sets of advices/recommendations, in particular those advices which advocate working outside the requirements of international statistical guidance, are set out in Annex A[1]. Included in Annex A is the date of the meeting from which each set of advice to the National Statistician was made, along with the most current supporting ONS paper on the issue at hand from the ONS.
12. Having accepted the SNA 2025 as the default methodology for ONS National Accounts, the following principles for accepting deviation from SNA 2025 are put forward with the consequence that NSCASE and ONS potentially accepts a reduction in international comparability.
    - We accept deviation where the manual does not well describe the UK experience (e.g. treatment of non-monetary gold)
    - We accept deviation where the UK has developed implementation methods which already adequately account, or surpass SNA guidance (e.g. Well being)
    - We accept deviation where UK methods development has given us sufficient confidence to implement (e.g. Unit Value Index uses)

[1] Annex A contains all the areas where NSCASE has advised deviation from SNA 2025. There is also an area of potential deviation which is not included in the Annex, namely the UK’s treatment of emission permits.

- We accept deviation from the international manuals as advised by NSCASE where it allows comparison of the UK economy with international economies with similar industrial structures.

13. Annex B contains the global responses to the draft core SNA 2025 chapters. As previously outlined, the core chapters comprise the main sequence of economic accounts, namely chapters 1 through to 19.

ONS Concerns

14. ONS has raised several concerns regarding the content of the draft 2025 SNA , which have been discussed in detail previously.

Annex A – NSCASE advice/recommendations to the National Statistician

NSCASE meeting and recommendations				
Meeting	**Issue**	**Guidance**	**Advice**	**Deviate from guidance**
2023Q1 (Jan)	Unit Value Method in price indices	Eurostat, Prices and Volume Manual	Deviations from the manual supported by the committee, in, for example cases where existing price indices are of poorer quality than those provided by Unit Value methods. NSCASE Minutes	Yes
2023Q1 (Jan)	Classification of Public and Private Partnerships	Eurostat and European PPP Expertise Centre (EPEC),	The Committee agreed that the Eurostat clarification note should be adopted. NSCASE Minutes	No
2023Q1 (Jan)	Treatment of Package Holidays in Consumer Prices	HICP (Harmonised Index of Consumer Prices) guidance	The Committee agreed to advise the National Statistician to adopt option 3 ‘Do not implement the Eurostat methodology but continue to seek improvements to the existing methodology and data collection through the alternative data sources	Yes

			transformation programme. NSCASE Minutes	
2023Q2 (Apr)	NSCASE Introduction to Natural Capital Depletion and Consultation on SNA Guidance Note WS.6	SNA	No decision, questions from Committee and request to update paper	
2023Q2 (Apr)	Quality adjustment of public services	ESA 2010	The Committee agreed that quality adjustments should in principle be introduced into the accounts. The Committee asked to be reassured that a high level of scrutiny would be applied to the work and that the appropriate stakeholders would be consulted. NSCASE Minutes	Yes deviate from European System of Accounts (ESA 2010)
2023Q3 (Jul)	Further information on Amendments made by Eurostat to the Manual on Government Deficit and Debt (MGDD), 2022 Edition	MGDD	The Committee supported the recommendation to adopt the MGDD 2022 and advised the National Statistician accordingly. NSCASE Minutes	No
2023Q3 (Jul)	Globalisation: an outline of sub-topics to be presented to NSCASE, and an introduction to the first sub-topic of 'Valuation of Imports and Exports of Goods in the International standards'	BPM7	The Committee supported the implementation of Option 1 to follow the BPM7 guidance of retaining the current valuation of trade in goods methods and investigate feasibility of adopting valuation of imports and exports at the observed transaction	No

			value. NSCASE Minutes.	
2023Q4 (Oct)	Treatment of Non-Monetary Gold in the UK National Accounts	SNA	The Committee supported option 1: Revise the current treatment of NMG so that it was excluded from both net trade and acquisitions less disposals of valuables and left as a balance sheet change, effectively reflecting a change in the asset composition. NSCASE Minutes	Yes
2024Q1 (Jan)	System of National Accounts 2025 Principles	SNA 2025	The Committee recommend that the System of National Accounts 2025 should be the default international manual for the UK. NSCASE will consider in which cases the UK should diverge from the default standard after careful consideration of which best meets UK measurements needs. NSCASE Minutes	No
2024Q2 (Jul)	2025 SNA Chapter 34: Measuring Wellbeing	SNA 2025	Essentially, ONS well-being measures ahead of guidance. NSCASE Minutes	Yes
2024Q3 (Oct)	BPM 7 Principles	BPM 7	The Committee recommended that the BPM7 should be adopted as the UK's default manual for Balance of Payments. NSCASE Minutes.	Yes
2024Q3 (Oct)	UK's adoption of industrial	SNA	The Committee recommended that Option B NACE	Yes

UK Statistics Authority

	classifications of economic activity		should be adopted to the 4th digit level and ONS should have discretion with the 5th digit. Any 3rd or 4th digit deviations the ONS wanted to make should be brought back to the Committee. NSCASE felt strongly about the impacts on international comparability and comparatively over time and felt that any proposals to deviate at the 3rd or 4th digit needed a strong case. NSCASE Minutes	

Annex B – Global comments on the draft core SNA Chapters (1-19)

General Comments

Dear SNA update team,

I welcome the attention given to well-being and its measurement, and to the inclusion of extensive content on how SNA measures aspects of well-being, either within the SNA sequence of economic accounts or outside of that sequence.

However, the clear delineation of all aspects of well-being presented in Fig 34.1 is not always described so clearly elsewhere. For example, unpaid household service work is clearly placed in the middle column of Fig 34.1 ("**Outside** the SNA sequence of economic accounts") while para 34.1 suggests that SNA **includes** unpaid household service work. It takes careful reading to see that SNA offers full coverage of material well-bring only if it is "adapted and extended" (para 1.11).

Similarly, Chapter 2 would benefit from the early inclusion of Fig 34.1, replacing its own version (Fig 2.1) that appears much later in chapter 2.

While Chapter 34 does make the case that SNA measures of material well-being can be compiled, it is silent on the uses of such measures. This contrasts with Chapter 1, which has section F on uses of the SNA sequence of economic accounts. That section could be read as embracing uses of measures of material well-being contained within the SNA sequence of economic accounts; I would be more reassured if there was explicit reference to material well-being made in section F, as well as on the uses of measures of material well-being.

Chapter 1 as a whole reads like an out-of-date economics text book. For example, para 1.7 only makes sense if the economic analysis and policymaking it describes is in terms of the economy as portrayed in the SNA sequence of economic accounts. It ignores the needs of analysts and policymakers who recognise that the transactional economy, unpaid work, and eco-systems are all inter-dependent. Referring to the "total" economy (eg in 1.8) is misleading. "The economy" referred to in 1.14 and throughout is the SNA model of the economy, not the economy in reality.

In para 2.3, GDP might be one of the most well-known of statistics, but it is not well understood. Moreover, there is increasing critique that following continual GDP growth has resulted in disbenefits, such as environmental destruction and loss of culture and autonomy. Some acknowledgement of this would seem appropriate.

Bangladesh

1. It is observed that in 2025 SNA many familiar terminologies have been renamed. In this regard, for users' convenience, a list of old and new terminologies could be added in the appendix of 2025 SNA.

2. Natural disasters like Cyclone, Flood, Landslide, Storm Surge, Tornado etc. often cause significant damages of assets and crops etc. Government requires an instant estimate of the losses and damages. Since 2025 SNA considers environmental issues with importance, it would be helpful if it provide/recommend a guideline for instant estimation of losses and damages due to natural disasters.

Germany FSO

First of all, we would like to congratulate all the authors who contributed to this SNA update, which includes many substantial improvements of this macroeconomic statistical standard in a dynamic economic environment.

Unfortunately, some of these potential advancements bring into the system of national accounts elevated necessity for various assumptions, further imputations and extensive modelling (too complex or too simplified), which are often necessarily of subjective nature and can be harmonized only to a limited extent. This may hamper the international comparability, as well as the role of national accounts as official statistics, which is used for economic analysis and policy making. In addition, some new concepts, which are intended as enhancements to the system may hardly be practically implemented in a meaningful way, and their implementation in the end will not embody improvements for the users, but bring opposite effects.

In this respect, we would like to point out in particular two of our major concerns:

1. Valuation of non-market production, which should newly include return to capital

For the estimations of return to capital, an interest rate needs to be selected (which is already very subjective) and the GDP / GNI will rise or decrease when interest rates for government debt will change. That means that the development of GDP / GNI is influenced by the selected interest rate and its changes and differences between countries will impact the international comparability. In addition, non-market producers will persistently show positive operating surplus, although no actual profit was generated.

UK Statistics Authority

2. Treatments for biological resources

For biological resources (and then consequently for land), there is a number of outstanding conceptual issues, which need to be still addressed (and some treatments clarified), to ensure meaningful results within the practical implementation. If not possible, an inclusion on the SNA research agenda should be considered.

Our last general remark concerns the integrated framework of national accounts. The first part of the integrated framework (the sequence of economic accounts) is well defined and described. As regards "the other parts of the integrated framework", their exact coverage is not that clear and should be (better) explained (examples given here and there (e.g. SUTs, Labour market tables, Table on capital services, …)), but never a complete list. Finally, a clear typology of all these various statistical products (accounts, tables) and their placement within the broad framework would then greatly facilitate communication with users and may help in formulation of implementation priorities and strategies.

First proposal concerns to Financial account and to its operations. We know that this account has offsetting entries with other c accounts. It would be useful to show this entries with other accounts. For example, we have some economy operations relating to output in the production account and this record can be shown as sales between non financial corporation and household in their production accounts and financial accounts. This approach will provide more understanding for compilation of financial account and for its balancing.

Second is matrix whom to whom. There is not its example in SNA 2008. We can find the reminder about it but we can not clearly examples for its compilation.

Third, when we read about components of accounts on the side of use and resources we can not see details of these components only reference on other manual. For example, when we speak about the net taxes on production and import for collection of them we have to see them in GFS 2001. I see, that is wonderful document (GFS 2001), but for integrated system we need more clearly examples about structure of these components.

Norway

In general Statistics Norway recognises the update of the SNA as an important improvement to the 2008 SNA and we would like to commend the substantial work undertaken by the many contributors.

However, we have earlier in the process and at the 55th UNSC in 2024 raised concerns about some of the proposed changes.

We are still concerned about the increasing number of assumptions required to compile some of the recommended changes to the main sequence of economic accounts. Our concerns are in particular related to the treatment of electronic data as an asset, the return to capital in the sum-of-cost approach, and the treatment of mineral and energy resources.

Maintaining a high reliability and comparability of the core system of national accounts and their key indicators is essential. Changing the SNA in such a way that the core accounts are more dependent on imputed values, risks reducing comparability of key macroeconomic aggregates over time and between countries.

Our concerns are, however, not only pragmatic. In the case of return to capital and the treatment of depletion of natural sources as a production cost we do in addition have doubts about the conceptual change. As we see it, these changes break with some of the fundamental key principles in SNA and should be more thoroughly discussed.

Statistics Norway has supported the work to develop and test practical implementation guidance for the most important recommendations and has also participated in two task teams and testing. However, we are in the opinion that even though guidance might mitigate some of the risk, the guidance does not remove the fact that the results are sensitive to use of assumptions and the presence of available data.

We recognise that some of the proposed changes may have relevance for analytical purposes. A better way forward, in our opinion, would be to implement these changes in supplementary or extended accounts, and not in the core SNA.

UNSD SEEA Central Framework Technical Committee of the UNCEEA

The SEEA Central Framework Technical Committee of the UNCEEA held a special meeting to discuss selected issues related to natural capital with focus on chapter 2, 34 and 35. The comments received from members of the Technical Committee are provided below.

The update of the SEEA Central Framework, which was recently endorsed by the UNSC in March 2023, will give an opportunity to reflect more on the changes in the 2025 SNA and assess more fully on their impacts on the SEEA CF. The differences between the SNA and SEEA should be highlighted in the text wherever possible, including an explanation of why there are differences.

In general, the SEEA should be viewed as part of the suite of macro standards rather than a complement to the SNA. Paras 1.66 and 1.81 mention that the SEEA complements the SNA, but it extends the SNA to more fully cover the environment.

- par 14.59-14.63: Only biological resources are mentioned in these paragraphs; it is suggested to delete "water resources and other natural resources", which are not mentioned in this section.
- par 14.62: The text in this paragraph should be clarified. If resource rent is used to value the forest land plus the provisioning element, this would not be consistent with the SEEA and forest accounts. It also is not clear how standing timber (inventories) is to be valued.
- par 14.63 Suggest mentioning that valuation is to be based on resource rent.
- par 35.24-35.35 The SEEA itself has not (yet) defined natural capital, and the definition of natural capital provided in the SNA2025 (sum of natural resources and ecosystem assets) is problematic, as there is a significant overlap leading to double counting. It is suggested to recognize that these measurement categories are not mutually exclusive. This is (less) problematic for the SNA (that disregards ecosystem assets) but more so for the SEEA. It is also recommended to refer also to the SEEA EA, in addition to the SEEA CF, where it has been tried to integrate natural resources and ecosystem assets. It should be noted that the concept on natural capital which was not deliberately defined in the SEEA and will be discussed during the update of the SEEA Central Framework.
- par 11.87. We would suggest changing the terminology of "land improvement" to "land preparation", which better reflects the concept of preparing land for production activities. The rationale is that land improvement/preparation is often (almost always) destructive of ecosystem assets, which are the second major component of natural capital. The (overall)

UK Statistics Authority

destructive effects of land improvement/preparation on ecosystems should also be mentioned in the text.

- The tone and messaging of Chapters 1 and 2 is different, with Chapter 1 implying that the SNA is the whole encompassing framework providing the answers for Beyond GDP. Chapter 2 instead implies that the SEEA is a macro framework on par with the SEEA. The discussion on the relationship between the SNA and the SEEA needs to be further explored. It is confusing for countries to have different frameworks that ask for countries to implement things in a slightly different way.
- Definition of depletion – The definition of depletion needs to be better explained. Taking net growth as depletion (if extraction is bigger than growth) is an oversimplification. It seems to imply that the ecosystem is in good condition. But this is often not the case. How do we deal with cases when for example fishing is forbidden to allow the stock to regenerate? Should any catch happening in these areas be considered depletion? This perhaps should not be the case.
- Asset/production boundary- extraction of fuelwood from a natural forest outside the SNA asset boundary constitutes production, but the asset of a natural forest is outside the SNA asset boundary. It is not clear how to deal with this situation. A similar case takes place for extraction of fish which is caught from assets which are not under quotas regimes.
- Treatment of illegal extraction of resources – it is currently treated as uncompensated seizure and as such does not contribute to the depletion of the asset. This is counterintuitive and does not reflect what it actually happens.
- High seas fish stocks – more than 90 countries have signed the high seas treaty and is currently being ratified. Although not many countries have ratified it, the management of the resources in the high seas will be subject to governance that will be allocated to national jurisdictions. It may be good to mention the possibility of extension of the asset boundaries.
- Recording of depletion caused by foreign boats operating in EEZs of a national jurisdiction holding quotas should be explained. These foreign operators cause depletion, and the question is whether this can be recorded as an export of depletion cost.
- Treatment of land. This needs further thought, as it is unclear whether land is included with the value of the asset itself (e.g. agricultural land) or land under buildings and now possibly forestland being treated as agricultural land.
- Chapters 2, 34 and 35 seem to be not fully integrated with the rest of the SNA. They are more standalone chapters which do not make link to the other chapters of the SNA, and vice-versa the SNA does not make reference to these chapters describing for example where it differs from the SEEA and why (e,g treatment of land).
- There are a lot of repetition of concepts in the different chapters of the SNA sometimes explained with somewhat different terminology. This is not very helpful as it introduces room for interpretation. Cross consistency across chapters should be assessed, especially if new changes are introduced.
- With regards to the issue note on natural capital recently discussed in the AEG:
    - Issue 2: With regards to the asset classification of non-renewable mineral and energy resources, it is strongly suggested to keep oil and natural gas as separate categories, to encourage the collection of disaggregated data for these two categories, which is important for climate change policies.
    - Issue 3a): From the SEEA perspective, this change moves further from the SEEA treatment of land. Land should remain on the research agenda as this is one of

the topics where the SNA differs from the SEEA. In addition, it is important to use the term "forest land" and not to abbreviate to "forest". The use of "forest land" is mostly consistent throughout the issues note, but there are a couple of places where "forest" should be changed to "forest land", one place where "forest area" should be changed to "area of forest land". On page 3, "if a country's forests are on two pieces of land" should be changed to "if a country has two pieces of forest land".

- Issue 3c): Looking at the initial proposal for the classification of biological resources, it is not clear why there is the distinction of animals yielding single products only for animals and not for forest. The treatment of standing timber in the current proposed classification also is not clear. It is suggested to adopt the alternative proposed because it is clearer for users and is more consistent with the classifications for other assets (i.e. based on the characteristics or purposes of the asset, rather than the accounting treatment).
- We agree with the proposal in Issue 5.

UNSD Demographic and Social Statistics Branch

1.
- **Comments on the SNA 2025** Prepared by the Demographic and Social Statistics Branch-UNSD

Definition of a Household:

The current definition proposed in the SNA 2025 diverges slightly in wording from the one used in the **UN Principles and Recommendations on Population and Housing Censuses** (Census P&R rev 4.)[1]. To ensure consistency, it is recommended to adopt the P&R definition.

In particular, it should be noted that countries employ two main concepts when collecting household data: the 'housekeeping' concept and the 'household dwelling' concept. While the former is more common, the latter is used by several countries, particularly those that rely on administrative records for population statistics.

Additionally, please note that paragraphs 32.10[2] and 5.218[3] of the SNA provide definitions of households with minor variations in their phrasing.

Population in collective living quarters:

The Census P&R rev4[4] refers to the population at the specific moment of the census, while SNA 2025[5] refers to a longer-term perspective. For example, tertiary students living in dormitories will be considered institutional population according to the P&R if they were living in dormitories at the moment of the census taking while for the SNA they should be treated as members of the individual households to which they normally belong.

The P&R differentiates between primary/secondary students and tertiary students regarding their place of usual residence:

1. Primary/secondary students: If they are away from home during the school term, their place of usual residence is considered their family home.
2. Tertiary students: If they are away from home while attending college or university, their place of usual residence is their term-time address, whether it's an institution or a private residence.

Reference person:

The concept of a “reference person” in the SNA aligns with the approach recommended in the Census P&R that promotes moving away from the traditional notion of a “head of household.”

However, while the P&R specifies that countries should select criteria for identifying the reference person (needed to determine relationships between household members during data collection), the SNA suggests that this person should be the one with the largest income or the one who makes the major decisions about consumption. This method could introduce biases, such as gender bias, similar to those associated with the concept of the head of household. The P&R cautions that automatically designating the reference person as the highest income earner has its drawbacks, as this person may not represent the broadest range of explicit kin relationships.

It should also be noted that when administrative data sources are used, deriving the relationship of household members to the reference person may present several challenges.

Children definition age limits:

The Census P&R[6] and SNA 2025[7] exhibit differences in defining age limits for children. The P&R defines children (for statistical purposes) as individuals under 15 years of age. In contrast, the SNA defines children with an upper age limit of 16 years, extending up to 24 years if the individual is the dependent offspring of a household member still residing at home.

Definitions of resident population

SNA

With reference to SNA paragraphs 5.10 to 5.12, three points need to be highlighted regarding the recommendations in the Census P&R Rev4[8]: i) The reference period for designating a person as a usual resident in the Census P&R is flexible and offers two periods, acknowledging that some countries use a longer reference period while others use a shorter one; ii) The Census P&R uses only time reference criteria and does not include the SNA criteria of “strong links or a center of predominant economic interest”; and iii) While paragraph 5.12 describes how population estimates are generated in countries where census statistics are compiled from field-based data collection, it does not address the cases of countries compiling population statistics from administrative registers.

UK Statistics Authority

2. Population

5.10 In the context of national accounts, data on population are important for deriving per capita figures for aggregates such as GDP and NDP. They also constitute the main elements for defining households. ***The population of a country is most simply defined as all those ~~natural~~ persons who are resident in the economic territory at a given point in time.*** In this definition, the SNA and BPM concept of residence is used, that is ~~natural~~ persons are resident in the country where they have the strongest links thereby establishing a centre of predominant economic interest. Generally, the criterion would be based on their intended country of residence for one year or more. In most cases, the concept of residence is straightforward, being based on the dwelling a person occupies on a permanent basis, although there are some borderline cases.

5.11 Generally, ~~natural~~ persons who are resident in a country for one year or more, regardless of their citizenship, should be included in the population measure. An exception is foreign diplomatic personnel and defence personnel, together with their families, who should be included as part of the population of their home country. The "one-year rule" means that usual residents who are living abroad for less than one year are included in the population but foreign visitors (for example, holidaymakers) who are in the country for less than one year are excluded from the measured population. Further elaboration on the application on the residence criterion in special cases is given in section J~~further below~~.

5.12 Annual population is typically estimated from less frequent population censuses. Censuses usually count the number of people present on a specified night or the number of people who usually live in a dwelling, even if they are not present when the census is enumerated. However, a census is often conducted only every five or ten years and sometimes less frequently. In years between censuses, updated information on the population of a country is provided by sample-based surveys and by drawing on information on births and deaths and on net migration.

We recommend SNA refers/links to the Census P&R rev4 for any concepts, definitions, recommendations related to "Population", given that population data will be produced by countries according to the P&R. This will promote alignment between economic and population statistics.

Inclusions/exclusion of population groups in (usual) resident population

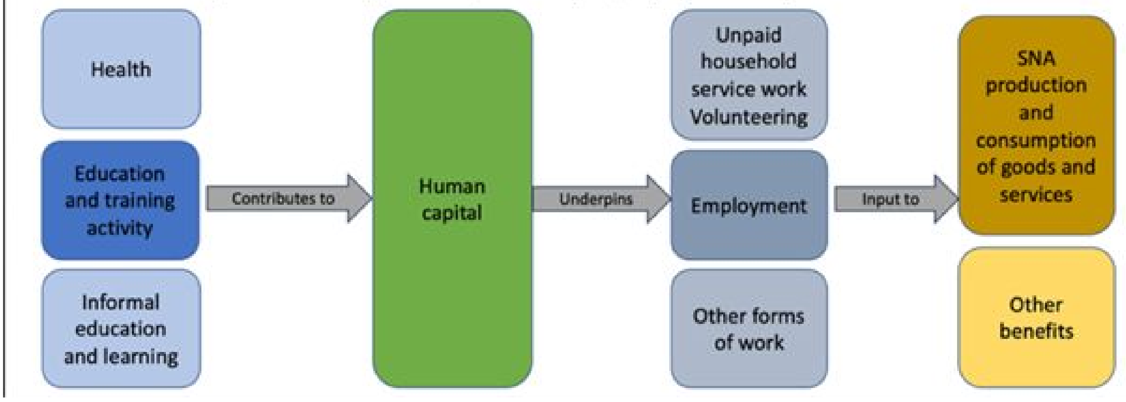
SNA Section J

With regard to the inclusion/exclusion of population groups in the (usual) resident population, there is agreement between the SNA and the Census P&R[9], except in the treatment of tertiary students studying abroad. The SNA recommends including such groups, while the P&R recommends excluding them.

Unpaid household service work and human capital.

To acknowledge the contribution of all forms of work, including unpaid household service work, to the formation of human capital, it is suggested to have the arrow between Human Capital and forms of work going in both directions:

Figure 34.2: Linking education, human capital, employment and production



[1] Census P&R rev 4,

"5.135 A *household* may be:

- A one-person household, that is to say, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multiperson household; or
- A multiperson household, that is to say, a group of two or more persons living together under the same roof who make common provision for food, housing or other essentials for living. The persons in the group may pool their resources and have a common budget; they may be related or unrelated persons or a combination of persons both related and unrelated. This arrangement exemplifies the "housekeeping" concept." It should be noted, however, that some countries (including many that compile their census statistics from administrative sources) use a concept different from the "housekeeping" concept. Such countries use the "household dwelling" concept, which regards all persons living in a housing unit as belonging to the same household. According to this concept, there is one household per occupied housing unit. Consequently, the number of occupied housing units and the number of households occupying should always be equal and the locations of the housing units and households are identical. It should be noted, however, that the "housekeeping concept" does not assume that the number of households and housing units are, or should, be equal. In countries that use the "housekeeping" concept, where multiple households share a single dwelling unit, the number of households will be greater than the number of dwelling units.

[2]SNA 2025 Chapter 32 "32.10 It is useful to begin by recalling the definition of a household given in paragraphs [5.xxx]4.149 to. 4.157. A household is defined as a group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. In general, each member of a household should have some claim upon the collective resources of the household. At least some decisions affecting consumption or other economic activities must be taken for the household as a whole."

[3] SNA 2025 Chapter 5 "5.4 For purposes of the SNA/BPM, a household is a group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. As well as individual households, there are units described as institutional households that

comprise groups of persons staying in hospitals, retirement homes, convents, prisons, etc. for long periods of time.

5.218 For the purposes of macroeconomic statistics, a household is defined in paragraph 5.4 as a single person having a separate living accommodation, or a group of natural persons who share the same living

accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods

and services collectively, mainly housing and food. In general, each member of a household should have

some claim upon the collective resources of the household. At least some decisions affecting consumption

or other economic activities must be taken for the household as a whole."

[4] Census P&R rev 4 "2.41 As emphasized in paragraph 2.29, institutions represent the second general framework within which persons, as major units of enumeration, are identified. The institutional population comprises persons who are not members of households. These include persons living in military installations, correctional and penal institutions, dormitories of schools and universities, religious institutions, hospitals, refugee camps and so forth.[4] Personnel responsible for the running of an institution and not living in dormitories or similar accommodations should be excluded from the institutional population. Similarly, some buildings housing seniors may have different levels of care, with independent living quarters that should not be considered as collective living quarters like some other quarters with higher levels of care. Although the members residing in the institutional households constitute a single unit, keeping in mind that in future more and more people would submit the responses in census through self-enumeration and past data may also be used in future censuses, each member may be enumerated as single member household. "

Census P&R rev 4 "5.41. There are population groups for which some uncertainty may arise in defining their place of usual residence within the country. The recommended conventional treatment of these cases is as follows:

5. b) For persons of minor age in primary and secondary education who are away from home during the school term, their place of usual residence should be their family home/residence.
6. c) For students in tertiary education who are away from home while at college or university, their place of usual residence should be their term-time address regardless of whether this is an institution (such as a boarding school) or a private residence."

[5] SNA 2025 Chapter 32 "32.13 Persons living permanently in an institution, or who may be expected to reside in an institution for a very long, or indefinite, period of time, usually one year, are treated as belonging to a single institutional household when they have little or no autonomy of action or decision in economic matters. Some examples of persons belonging to institutional households are the following: a. Members of religious orders living in monasteries, convents or similar institutions; b. Long-term patients in hospitals, including psychiatric facilities; mental hospitals; c. Prisoners serving long sentences; d. Elderly Old persons living permanently in retirement care homes.

32.14 On the other hand, persons who enter hospitals, clinics, convalescent homes, religious retreats, or similar institutions for short periods, who attend residential schools, colleges or universities, or who serve short prison sentences should be treated as members of the individual households to which they normally belong."

[6] Census P&R rev 4, "3.537 For statistical purposes, "children" are defined as persons under 15 years of age, and "youths" are defined as those aged 15–24. However, it is useful to further divide these special groups by 5-year age groups (or nationally, by groups of specific school ages) because of the rapid changes in characteristics in this age range, such as in school attendance, marital status and activity status. Also, because of differences by sex in the age at marriage or family formation, family or household status and entry into the labour market, data should be classified not only by age but also by sex. To this end, the distribution by single years of age and sex is useful. If single-year age distribution is not feasible for young children under age 5, it would be desirable to distinguish between those under 1 year of age (infants) and those aged 1–4. For youths aged 15–19, it would be desirable to distinguish between those 15–17 years of age and those 18–19 years of age, or to have a distinction corresponding to the age below which the country considers an individual to be a minor. According to the Convention on the Rights of the Child, anyone under 18 years is a child unless national law stipulates a lower age of majority."

[7] SNA 2025, Chapter 5, "5.237 Within the above household compositions, children are generally classified as up to 16 years and up to 24 years if they are the offspring of one of the household members and are still living at home. The classification of children may vary between countries dependent on national legislation."

[8] **Census P&R rev4:**

- It is recommended that countries apply a threshold of 12 months when considering place of usual residence according to one of the following two criteria:
- The place at which the person has lived continuously for most of the 12 months before census reference day (that is, for at least six months and one day, not including temporary absences for holidays or work assignments) or intends to live for at least six months;
- The place at which the person has lived continuously for at least 12 months before census reference day (not including temporary absences for holidays or work assignments) or intends to live for at least 12 months.
- For register-based censuses, the place of usual residence could be taken to mean the place of legal or registered residence, defined with reference to a qualification period of 12 months or assessed with reference to the 12-month criterion.

[9] Census P&R rev4:

- There are various population groups for whom some uncertainty may arise about their inclusion in the usual resident population. The following persons should generally be considered as part of the usually resident population:
- Persons found at the moment of enumeration who cannot identify a place of usual residence, such as those who change residence often;
- National military, naval and diplomatic personnel and their families, located outside the country, irrespective of their duration of stay abroad;
- Foreign citizens working within the country for international businesses or organizations (but not including foreign diplomats or military forces) and their families, provided that they meet the criteria for the usual residence in the country;

- Merchant seafarers and fishers usually resident in the country but at sea at the census reference time (including those who have no place of residence other than their quarters aboard ship);
- Persons who are irregular or undocumented migrants, as well as asylum seekers and persons who have applied for, or been granted, refugee status or similar types of international protections, provided that they meet the criteria for usual residence in the country (the intention is not to distinguish these persons separately, but rather to ensure that they are not missed from the enumeration);
- Persons who cross a frontier daily or weekly to work or study in another country, provided that they meet the criteria for usual residence in the enumeration country;
- Children born in the 12 months before the census reference time and are usually resident in the country at the census reference time; and
- Persons who regularly live in more than one country during a year, if they reside in the country conducting the census most of the time, regardless of whether they are physically present in that country at the census reference time.

On the other hand, the following group of persons should generally be excluded from the usual resident population:

- Foreign military, naval and diplomatic personnel and their families, located in the country, regardless of their duration of stay and/or place of usual residence;
- Third-level students who are or intend to be absent from the country for 12 months (most of, or at least);
- Persons who regularly live in more than one country during a year, if they reside in the country conducting the census the least amount of time, regardless of whether they are physically present in that country at the census reference time

ECLAC

Given the depth of some of the proposed changes, it will be essential to develop methodological guidelines and proposals to address more complex topics, such as the measurement of Natural Capital. On September 10th and 11th, Latin American and Caribbean countries participated in the Annual National Accounts Seminar, and this was a recurring concern. Support will be required for the implementation of the 2025 SNA and certain conventions to ensure that comparability is maintained.

IMF

The IMF thinks that the chapters are in good shape. We believe it is ready for endorsement by the UNSC.
We found a few instances of inconsistencies across chapters for your consideration.

Links between Chapters 5, 32, and 34 on sectorization.
1. It is suggested that Chapter 32, which refers to groupings, align with Chapters 5 and 34 by aligning the term sectorization.
• For the sectorizacion proposed for the household sector, Chapter 32, unlike Chapter 5, refers to groupings rather sectorizacion (par 32.99 and 32.100).

Chapter 32 Households
32.99 Based on these criteria, the primary recommendation for the grouping of households is on

the basis of deciles of equivalized household disposable income. This involves looking at the relative income available to a household, ranking households accordingly and allocating them into decile groups. Of course, a decile breakdown may still conceal large inequalities within these groups and hence further breakdowns into more granular groups may be considered. This may be particularly relevant for the top income and wealth groups. Thus, accounts for the top 5%, 1% and even 0.1% of income earners may be compiled.
32.100 Other household groupings that may be considered include those based on levels of permanent income, main source of income the age of the reference person and the composition of households. Section C and Chapter 34 provide additional discussion on the subsectoring of households and the range of characteristics of households and household members that can be considered in distributional accounting and analysis.

Chapter 5. Residence, institutional units and sectors. Section G. The households sector and its subsectors. 4. Subsector of the household sector

5.229 The SNA has to be applied flexibly, not rigidly. In order to implement any of the possible methods of subsectoring the households sector suggested below, individual countries should make their own decisions about what they consider to be the most relevant classification. Thus, the fact that a specific, detailed classification according to a criterion of interest is proposed here should not be interpreted as implying that the characteristics proposed are necessarily or always the most important for purposes of economic analysis and policymaking. Having said that, in view of the importance of having internationally comparable data on the distribution of income, consumption, saving and wealth across household groups, below a subsectoring according to income and wealth deciles is put forward as a standard breakdown, while other breakdowns are considered to be supplementary items, which could be more or less relevant depending on country circumstances.

Subsectoring according to levels of income and wealth (equivalized disposable income: deciles, and if possible, top 5% and top 1%)
Subsectoring according to other criteria : source of income and age of members, and other alternative classifications.

- Also, Chapter 34 refers to subsectors, not groupings, for those related to income, consumption and wealth.

34.52 The compilation of accounts showing the distribution of household income, consumption and wealth ~~distributional results~~ entails breaking down results for various accounts of the household sector as defined within the SNA, into more granular subsectors consisting of specific groups of households

- Also, when explaining sectorization, Chapter 32 in Section C refers to that related to production, consumption, and income perspective, and not to that coming from the distribution of income, consumption, and wealth. It would be convenient to align all the sectorizations proposed and highlight that suggested as standard according to paragraph 5.229.

2. It is suggested to include in Figure 34.1 Aspects of well-being the line for Human capital in the second column below. Human capital is included in the circles, but not in the columns. We also noticed that the "clean" PDF version of the manual did not include the circles in figure 34.1 whereas this version does https://mdgs.un.org/unsd/nationalaccount/SNAUpdate/2025/2025SNA_CH34_V11.pdf
3. Alignment of the term implicit financial services on loans and deposits instead of FISIM in Chapter 34. Paragraphs 34.32 and 34.56 still refer FISIM.

UK Statistics Authority

4. 34.121 A final extension concerns data on the provision of early childhood education which will commonly involve unpaid household service work and hence is outside ~~the scope of the~~ SNA production boundary. An extension to consider the role of unpaid household service work might also extend to recognize the contribution of other unpaid household service work activities that support the development of human capital such as those relating to childcare, nutrition and information services. Estimates concerning these~~is~~ activitiesy can be incorporated in the SAET framework recognizing the challenges involved in measuring and valuing unpaid household service work as described in Section ~~C~~D.

Additional comments

1. The term "economic capital" is discussed in Chapter 2 and then Chapter 35. It may be useful to include the term "economic capital" in other places as well, especially in Chapter 11 on "Capital account" and in the discussions on capital services.
2. Reading through Chapter 35, it seems that ecosystem assets and ecosystem services are kept out of the purview of the SNA2025 and no additional tables are being proposed. (Para 3.184 states that "No thematic or extended accounts/tables are defined in relation to environmental issues. For this purpose, the System of Environmental-Economic Accounts (SEEA) provides an integrated framework complementary to the SNA."). Further, Figure 35.1 shows that Ecosystem assets are shown as being excluded from the SNA.

♣ However, there are at least two references to point out that though not explicitly, but the values of natural resources may capture part of the value of the "ecosystem assets".

♣ Para 35. 27 says that – "While this framing of natural capital encompasses stocks of natural resources and ecosystem assets, these two categories of natural capital are not mutually exclusive and there is a clear overlap between ecosystem assets and a number of natural resources including land, biological resources and water resources. For example, from the perspective of natural resources the stock of fish in a lake is a distinct asset while from the perspective of ecosystem assets the lake is a type of ecosystem and the fish stock is a feature or characteristic of that asset in addition to the water, plants and other animals in the lake. In effect, accounting for the stock of natural resources has a focus on individual components of the biophysical environment whereas accounting for the stock of ecosystem assets has a focus on the combination of individual components in distinct contexts."

♣ Similarly Para 35.61 states that "in scope of ecosystem accounting, there will be an overlap between the monetary value of ecosystem assets and the value of the land recorded in the SNA balance sheet. This overlap arises because the ecosystem services generated by those areas include some services which contribute to generate economic benefits for the owners of the land. For example, the value of agricultural land will be linked to the supply of crop provisioning services, the value of forest land will be linked to the supply of wood provisioning services and the value of urban land will be linked to the supply of recreation-related services (e.g. from urban parks). Consequently, care needs to be taken in integrating measures of ecosystem asset values in monetary terms with the value of land and other assets in the SNA balance sheet. This may be interpreted to mean that the value of land as an ecosystem asset may be included in the SNA.

♣ In view of the text in these two paras, can we give a reference to Para 35.27 and 35.61 in Figure 35.1 and mention that part of the ecosystem assets may be covered.

IMF

1.The tone and messaging of Chapters 1 and 2 is different with Chapter 1 implying that the SNA is the whole encompassing framework providing the answers for Beyond GDP. Chapter 2 instead implies that the SEEA is a macro framework on par with the SEEA. The discussion on the relationship between the SNA and the SEEA needs to be further explored. It is confusing to countries to we have different frameworks that ask for countries to implement things in a slightly different way.

2. Definition of depletion – The definition of depletion needs to be better explained. Taking net growth a depletion (if extraction is bigger than growth) is an oversimplification. It seems to imply that the ecosystem is in good condition. But this is often not the case. How do we deal with cases when for example fishing is forbidden to allow the stock to regenerate? Should any catch happening in these areas be considered depletion? – in my opinion that should be the case.

3. Asset/production boundary- extraction of fuelwood from a natural forest outside the SNA asset boundary constitutes production but the asset natural forest is outside the SNA asset boundary. How to deal with that situation? A similar case takes place for extraction of fish which is caught from assets which are not under quotas regimes.

4. Treatment of illegal extraction of resources – it is currently treated as uncompensated seizure and as such does not contribute to the depletion of the asset. This is counterintuitive and does not reflect what it actually happens.

5. High seas fish stocks – more than 90 countries have signed the high seas treaty and is currently being ratified. Although not many countries have ratified it, the management of the resources in the high seas will be subject to governance that will be allocated to national jurisdictions. It may be good to mention the possibility of extension of the asset boundaries.

6. Recording of depletion caused by foreign boats operating in EEZs of a national jurisdiction holding quotas should be explained. These foreign operators go cause depletion, the question is whether this can be recorded as an export of depletion cost.

7. Treatment of land. This needs further thought as it is unclear whether land is included with the value of the asset itself (e.g. agricultural land) or land under buildings and now possibly forestland being treated as agricultural land.

8. Chapters 2, 34 and 35 seem to be not fully integrated with the rest of the SNA. They are more standalone chapters which do not make link to the other chapters of the SNA and vice-versa the SNA does not make reference to these chapters describing for example where it differs from the SEEA and why (e,g treatment of land).

9. The SNA introduces and defines the concept on natural capital which was not deliberately defined in the SEEA. This may need to undergo discussion and consultation among the environmental accounting community.

10. There are a lot of repetition of concepts in the different chapters of the SNA sometimes explained with somewhat different terminology. This is not very helpful as it introduces room for interpretation. Cross consistency across chapters should be assessed, especially if new changes are introduced.

Sweden

Introduction

Statistics Sweden recognises the update of the SNA as an important step to better align the SNA framework to user needs and new developments in the field of economic statistics. However, we have earlier in the process and at the UNSC meeting in February 2024 expressed concerns about some of the proposals.

General remarks

Our concern regards, in particular, the reliability and relevance of GDP as an indicator for economic policy. The experience from the latest SNA-revisions is that the GDP as an indicator of economic activity has become less reliable. This is among other things due to the problems of estimating the output of own account intellectual property products (IPP) included in GDP both in the 1993 revision (computer software, artistic originals etc.) and the 2008SNA (R&D). One of the main challenges in the update process is therefore to improve the statistical quality of GDP and other main aggregates of the SNA.

Overall, Statistics Sweden is still concerned about the increasing number of assumptions required to compile some of the recommended changes to the main sequence of economic accounts. More calculations based on assumptions in the core, introduces the risk of reducing international and temporal comparability of key macroeconomic aggregates. Maintaining a high reliability and comparability of the core system of national accounts and their key indicators is essential.

Statistics Sweden welcomes the ongoing work to develop and test practical implementation guidance for some critical recommendations. However, we are of the opinion that even though guidance might mitigate some of the risk, guidelines do not remove the fact that the results are sensitive to the use of assumptions and the presence of available data. In the case of return to capital in the sum of costs approach and the treatment of depletion of natural resources as a production cost we do in addition have strong doubts about the conceptual consistency of the proposed changes.

The inclusion of more analytical elements in the SNA framework needs a transparent structure to organise the multitude of information in the framework. This has been achieved on a principal level by introducing the concepts of 'thematic' and 'extended' accounts. We welcome this as a clear improvement. Nevertheless, the possibility to organise the SNA information content according to these principles have according to our view not been wholly utilised.

In order to support a transparent and user-friendly framework and avoid ambiguities, that otherwise might reduce the credibility of the SNA, we propose that analytical information mainly appear in dedicated tables and accounts separated from the standard accounts of the SNA.

A particular issue of interest is the relevance of the SNA for environmental sustainability analyses. This has been one of the main issues in the update process. The inclusion of more information in the SNA and how the information in the standard accounts can be understood and used for a multitude of analyses has mainly been dictated by the needs related to microeconomic productivity analysis and the IPCC analysis of sustainability (weak sustainability).

To support a multi-purpose use of the SNA we therefore encourage the inclusion of information that also relates the SNA to other perspectives on sustainability. One obvious example is information related to the notion of an environmental debt to future generations and the growth of this debt due to economic activity (strong sustainability).

Nevertheless, we understand that expanding the scope of the SNA will at this stage not be feasible within the time limits of the current SNA update process. An alternative would therefore be to add the issue of environmental debt to the SNA research agenda.

-

Reliability and relevance of the GDP estimate

The so called 'Irish case' revealed that the GDP estimate is sensitive to the location of units owning IPP and the corresponding payments of licence fees and royalties received by these units. The impact of foreign owned IPP-assets on GDP also led the Central Statistics Office of Ireland to reconsider the usefulness of GDP and develop other indicators, for example the adjusted GNI-measure (GNI*) that is regarded to better describe the development of the Irish economy. GNI* neutralises the impact of licence fees and royalties on GDP and GNI by excluding the IPP income of foreign owned enterprises in the Irish economy and the corresponding consumption of fixed assets related to the IPP. [1]

The Irish CSO argues that GNI* is a more appropriate indicator since it excludes the impact of globalisation that is the outcome of low taxes rather than Irish industrial activity. We think that this is not the only way of analysing the issue. It can also be regarded as an outcome due to a misspecification of the GDP indicator in the SNA2008. The inclusion of payments for the use of patents in GDP was made, as a consequence, when R&D costs was decided to be recorded as capital formation (capitalised costs) and no longer recorded as a current production cost.

We should also note that this decision to revise SNA to include own account IPP in 1993SNA and 2008SNA was not made without criticism. The critics particularly highlighted the issue of double counting output and value added. The GDP includes IPP in first instance when the IPP is created and secondly, without any further processing, when the right to use the IPP is agreed between the owner and the user against payments. Excluding the second part from output would in our view mitigate the main problem identified by the Irish CSO.

The exclusion of royalties and licence fees from output can be justified from a principal point of view. First of all, no new or different product is manufactured and sold to the user. It is more or less a sharing of an asset (IPP) that is perfectly divisible. Secondly, the user producing outputs based on a patent is paying part of its revenue to the owner of the patent. This can be regarded as a redistribution of income in the same sense as the payment for the use of land (rent). Rent is not (yet) recorded as a cost of production in the SNA but as a property income. This was also the case for royalties and licence fees before they were included in the output of the IPP producer and the costs in the accounts of the user.

In the SNA costs mean social costs which represent the using up of goods made in a production process involving human labour. Input of raw material extracted and processed represent costs, machinery consumed by wear and tear also represent costs of production. Payment for the use of land is not a social cost since it does not represent the using up of a good produced by labour. The payment for the work on restoring land damaged by human activity is on the other hand a social cost. So, whether licence fees and royalty payments represent social costs depends on whether the IPP is used up or not.

One of the most striking characteristics of knowledge-based assets (IPP) is that they exist and are exactly the same year after year regardless of how many units of output that have been produced with the support of the IPP. In a physical sense IPP are never used up. The SNA perspective on production as a physical transformation process underlines the understanding of the issue in terms of a physical relation of quantities rather than values.

Looking at the issue from the perspective of the society, these assets continue to contribute for a long time since new inventions builds on previous ones. From the perspective of an individual entrepreneur the time at hand to recover the R&D costs is limited due to the specific legislation on patents, copyrights etc. The monetary value of a patent will therefore gradually decline until it is free to use.

Regarding the past experience of revising the SNA, the current reluctance to include additional items based on models and assumptions should come as no surprise. The 'Irish case' is in this respect a reminder of the necessity of maintaining conceptual consistency.

Adding a return to capital in the sum of costs approach

One of the issues we have expressed concern about is the proposal to include a return to assets in the sum of costs approach of valuing non-market output. Non-market output is produced by government units (including the central bank) and non-profit institutions serving households (NPISH).

The GDP aggregate is a weighted sum of value added expressed in quantities (volumes) produced by corporations, government units and households. Prices act as weights and an increase in the value of output operates in the price domain and translates into larger weights when the volume of output is aggregated into GDP. The increase in the prices used to estimate government output have a direct impact on the net operating surplus which is the income from production when all costs have been subtracted.

The consequences of implementing the proposal will be:

- a higher level of output of government and NPISH that directly impacts the level of GDP,
- a larger impact of the growth rate of non-market output on the GDP growth rate,
- a higher level of income of government and NPISH matched by higher consumption of the same magnitude which leads to,
- no impact on government deficit (net lending) and debt.

The main statistical unit in the SNA framework is the institutional unit (IU). The grouping of IU into institutional sectors is based on differences in their economic objective and behaviour. In this respect the economic agents in the corporate sector, the government sector and the household sector (incl. NPISH) differ regarding ends and means in their economic activity including their pricing strategies. These differences should also be taken into account when the *sum of costs approach* is used to estimate a value of their non-marketed output. The means needed to finance the activities of government and NPISH are received by charging taxes and fees. Therefore, there is no need in non-market activities to generate a positive net operating surplus.

We can understand the pricing strategies in relation to the volume of output produced. From a microeconomic point of view the enterprise maximising profits would produce the quantity for which the price of the last unit covers its marginal costs thus earning an operating surplus. A government unit on the other hand would produce the quantity for which the price of the last unit covers the average cost of production. This is also a maximising behaviour but not in terms of monetary income but given the budgetary restrictions, in terms of the units of output for the benefit of the population. These are hypothetical cases that illustrates that differences in the objectives of units have consequences for their ability to generate operating surplus.

In practice public enterprises exist in areas related to government responsibility, like water supply. These public units might charge market prices that only cover historic costs. In such cases the net operating surplus, as recorded in the national accounts, will end up being negative, contrary to the assumption of a mark-up on production costs.

It should be noted that the concept of return to capital included in the capital cost, despite the name, is actually income earned by the owners of the business. The income is earned by selling output at prices generating an operating surplus. This income is allocated to the shareholders and others receiving property income from the enterprise in exchange for providing financial resources and giving access to natural resources.

As noted above, governments and NPISH finance their activities by other means and do not need additional financial resources. In this respect the calculated return to capital is an imputed income not needed to cover the expenditures of governments and NPISH. Adding income for these units in the form of return to capital therefore implies a double counting of income.

Important main aggregates besides GDP are national income and disposable income. Adding a hypothetical return to capital will have a direct impact on the level of income recorded for governments in the SNA accounts. This issue is not covered in the guidance note proposing the amendment of the sum of costs approach (A8 GN). National accounts as a descriptive framework relies on the statistical correspondence between the empirical reality and the actual information recorded in the standard accounts. The correspondence between what can be observed and measured as income and the data collected and compiled in the national accounts was and still is the main reason for rejecting the idea of including a hypothetical return to capital in the SNA standard accounts.

Opportunity costs and risks in government activities

The proposal to amend the sum of costs approach leads to the question of what is described by adding a return to capital. Including a return on assets as costs in SNA means that the return to capital is a social cost in the same sense as the cost of producing the assets. Private enterprises and entrepreneurs might perceive the payments of dividends and interest to their financiers as a necessary expenditure. Costs in the national accounts are related to resources used in production and financial resources should in this respect not be included as costs but rather be regarded as income received on the investment.

In microeconomic theory the concept of opportunity cost is a cost related to the alternative use of resources. The opportunity cost can be understood in relation to the optimal use of resources to generate benefits. If assets, employed in one activity, could have generated a larger benefit (operating surplus), in another activity, this should be regarded as the cost of not choosing the best alternative. So, opportunity cost in this sense is the income that we miss out by choosing a less beneficiary alternative.

Another way to understand opportunity cost is related to the business risk. It is risky to engage in production since the expected outcome depends on many factors that are not possible to have entire control over. Production for the market includes market risks, risks in the operation of the enterprise, financial risk etc. An obvious opportunity of not investing in production is to make a non-risky financial investment. In practise the non-risky investment is usually regarded as being close to long term government bonds.

So, if government bonds are regarded risk free then the financial risk in government activity is also risk free. This leaves us with the other business risks in government. Market risks include the risk of not getting the output sold or sold at prices that do not cover costs. Regarding the non-market nature of government output there is obviously no market risk involved. Furthermore, there is little risk in relation to the government activities that need to be faced by the government. The main risks are related to non-optimal uses or actual misuses of the available resources leading to less services produced for the benefit of the population.

Opportunity costs and depletion

Both the idea of including a return to capital in the sum of costs approach and the proposed recording of depletion as a production cost challenges the current concept of production costs in the SNA. The original idea in the SNA is that payments for goods and services produced by human labour represent the using up of value added and are recorded as social costs of production. Natural resources in their virgin state are in this sense not produced by human activity and do not represent value added. Natural resources are free gifts to mankind. The use of natural resources whether paid for or not is in this sense excluded from the costs of production. Payments for the use of land and to exploit natural resources are therefore recorded as redistributions of income (rent) between the landowner and the exploiter.

The distinction between the value of natural resources and value added by economic activity is crucial in social accounting. Natural resources in their natural state only have a potential monetary value. This potential value is realised when resources are exploited and transferred into the economy. By this process value is added. Unused resources can in the future also be exploited and be further processed in economic activities which means that they have a potential value. The potential value of sub-soil resources is related to the additional income that can be earned in extraction in relation to income from other uses of the resources employed in extraction. The potential value is calculated using a model and additional assumptions regarding the future.

When we talk about the cost of using non-renewable natural resources, we are actually referring to the loss of future income in relation to current income received by using the resource. This is obviously an analysis of the future consequences of the current opportunities of extracting or not extracting the natural resource. Extracting today will reduce the possibility to make money in the future and this is regarded as a cost of production. The conclusion is that the actual income we receive today by extracting is not worth that much since we lose the possibility to earn income in the future. While this might be correct from an analytical point of view the income is still generated and should be accounted for as net income.

Against the perspective of depletion as a cost to be recorded in the SNA we can put the view that the actual costs of extraction are the costs of restoring the damage to nature caused by extraction. In the current SNA these costs are only recorded when the restoring activity is undertaken. This is in line with the SNA concept that costs are only related to the use of goods and services produced. If no restoration service is provided, human labour has not been used and no cost is recorded in the standard accounts of the SNA framework.

The perspective on depletion as a cost of production might have some analytical interest. Nevertheless, we argue that it does not belong to the standard accounts of the SNA and should only appear in the extended accounts. Besides the issue of whether depletion is a cost of production or not there are other conceptual consistency issues involved in the proposed recording. In the discussions in the sustainability task team, we have raised two issues:

1. The extraction of coal, oil and other minerals corresponds to taking out of inventory rather than using a machine. This is conceptually interesting since the use of inventories have impact on GDP and not only NNP which is the case for consumption of fixed capital and proposed for depletion.
2. The valuation of fixed capital used in extraction is made according to the cost of undertaking new investment (replacement cost). The natural resource and depletion are valued according to the additional income earned in extraction. Buildings and construction work at the extraction site have no alternative use and if sold the value would also depend on the future income that can be earned by continuing the extraction.

There are also other proposals that are analytical in nature, a specific one regards depletion and the natural growth of the fish stock in open seas. According to this proposal natural growth should be recorded as the opposite of depletion, an increase in income (negative depletion). While this might seem logical, this income is not generated by human production activity and from a statistical perspective more or less out of reach.

Value added and GDP is created and consumed by human activity. There is a one-to-one correspondence between value added and income. We think it would be a mistake to include in the SNA, natural processes like the growth of the fish stock in open seas, as increasing/decreasing the income in the economy, even though the growth rate might be impacted by the consequences of human activity (externalities). The harvesting of natural resources (fishing, hunting, logging etc) that are not under the ownership control of economic agents should still be the only item accounted for as production generating value added and income related to non-cultivated biological resources.

The structure of the SNA

What has been illustrated above is that some proposals in the SNA update process are related to the analytical usefulness of SNA rather than being conceptually consistent with the main principles of the SNA. This is in particular the case for proposals that are based on the opportunity cost concept. Other examples of analytical information that go beyond the statistical recording are: reinvested earning on foreign direct investments, super-dividends, provisions and cost of capital.

The intention to show how information in the SNA relates to user needs and economic analyses in for example the microeconomic field needs to be done with mutual respect for the conceptual differences both regarding concepts and notions. Otherwise, we will face a risk of weakening the SNA as a social accounting framework. In this respect we are of the opinion that the draft version has gone too far, leaving room for misunderstandings of basic social accounting concepts (consumption of fixed assets) and identities (income).

The following quotation taken from a previous version of the SNA is worth deeper consideration and should, in our view, be used as an organising principle regarding the structure of the SNA:

"In the development of national accounting emphasis has been placed on the distinction between what can be observed and measured and what can only be inferred on the basis of some theory or convention."[2]

The understanding is that a clear distinction should be made along the same lines as is currently done for the statistical data in the supply and use tables recorded in the standard accounts in relation the analytical information in the input-output tables recorded in the latter part of SNA covering extensions to the standard accounts.

The increased amount of information included in the draft 2025SNA relative to 2008SNA demands a good structure separating extensions to the main parts of the SNA standard accounts. The task of making the difference between statistics and analytical information transparent is further complicated by the lack of a transparent structure in the 2008SNA. This can be exemplified by the current mix of statistics (dividends) with analytical information included in the income accounts adding to income (reinvested earnings on foreign direct investment) or by excluding from income (super-dividends).

Achieving a good structure will not be possible within the time limits of the update process. The focus on improving the structure should therefore be on new items included in the 2025SNA.

The content in the thematic and extended accounts should appear in order of importance which implies that the first thematic account/table should be the input-output tables. The IO-tables are of great importance since they form the analytical foundation for important environmental topics like the relation between production, consumption and emissions of greenhouse gases.

We propose the following rearranged order of the proposed chapters in draft SNA2025:

Standard accounts: 1, 3-4, 5 (except subsectors of S12) 6, 7 (except parts on depletion and regenerative capacity), 8-16, 18

Further elaborations of the standard accounts: 19-20, 24-28, 33, 39

Thematic accounts: 2 (part) merged with 38 (part), 36, 5 (subsectors of S12), 29-32, 37, 22, 23

Extended accounts: 2 (part) merged with 38 (part), 17, 18 (part on productivity), 34, 35

Ch 21 is unclear, can be deleted. Changes of concepts often also result in a meaning shift. This can contribute to make SNA more ambiguous.

SNA and environmental sustainability

Environmental sustainability depends to a large extent on the possibility to mitigate the impact from the economy on nature. In this regard it is of great importance to analyse the relations between the economy and nature. This is the main objective of the SEEA framework. Harmonising the SNA with SEEA in terms of improving the coherence is of highest priority. Nevertheless, the ambition in the SNA update process is higher. The inclusion of large parts of the SEEA valuation method regarding assets and expanding on the asset definition goes beyond the current SNA.

This can be motivated by the analytical interest in supporting the UN model to analyse the impact of climate change on the economy. This model also includes the damage costs regardless of any obligation or payment to cover for the costs.

Expanding on the SNA framework in relation to one particular model for the analysis seems on the other hand too restrictive. We think there are benefits also in relating the SNA to other perspectives on sustainability. The use of natural resources is free of charge, at least on a societal level. But uses that give rise to negative consequences, in a sense comes with a cost. Some of the external effects are compensated for and thus included in the accounts but this covers far from all negative consequences associated with the use of natural resources in the economy.

One of the ideas put forward by distinguished national accounts colleagues[3] is to estimate the costs of restoring the nature to a state close to the original ecological functions it provided before being damage. This estimate can be regarded as the environmental debt to future generations. The growth of this debt is analytically interesting since it reveals the resources necessary to restore the current balance between the economy and nature.

Extracted non-renewable resources are excluded from the restoration costs mainly because they are nonbiological and the reduction in volume does not reduce nature's capability of providing ecological functions. It is the extraction activity that damages those functions and when extraction has come to an end nature can be restored. Non-renewable resources are in many cases abundant in physical quantities, it is the technology that needs to be improved to make the extraction profitable.

The environmental debt approach to accounting for sustainability is from a statistical perspective less challenging than the natural capital approach. A lot of information from various restoration projects exists and can be utilised to estimate restoration costs. To do this there is no need, in contrary to the debt approach, to put a price on nature which regarding the substantial work undertaken so far have produced poor results.

[1] Cf. Central Statistics Office of Ireland (2024) – Net National Income: Ireland's National Accounts in the Context of Globalisation, UNECE April 2024.

[2] 1968SNA §1.96, p. 15
[3] Cf. Vanoli, André – National accounting and consideration of the natural heritage, *La Revue du CGDD*, December 2015

Italy

Istat appreciates the work done to update the 2008 SNA and to provide this draft of the new manual. We understand the efforts made to include recommendations on the measurement of new economic and social phenomena.
We were unable to read the whole draft of the manual due to important work commitments related to the deadlines for the general revision of national accounts scheduled for the end of September.
However, we have provided some comments and reported inconsistencies in some chapters of the manual.
We will appreciate if the editorial team decides to open the window for further comments.

Chapter 1: Introduction

Colombia

It could be included within the Introduction, a paragraph specifying what is new in the SCN-25 and some reasons that justify its inclusion. Perhaps a parallel table showing the before and after of the SCN. Additionally, the chapter refers to supplementary material, which is not available for review.

In paragraph 1.6, the complementary volume measurements imply that more transactions in the sequence of accounts, beyond income, are estimated in real terms. It is necessary to mention which ones and which price or volume measures would be recommended.

In paragraph 1.12, it is advisable to mention the recommended global frameworks for well-being and sustainability.

In paragraph 1.26, the concept of 'depreciation' is introduced, replacing 'consumption of fixed capital'. It is important to mention the motivation for the change and what it implies in conceptual, methodological, and measurement terms.

In paragraph 1.31, it is suggested to refer to access to financial services instead of banking.

In paragraph 1.38, it is necessary to clarify whether the term depreciation refers to the consumption of fixed capital. If not, what would be the scope and implications of this change in the national accounting guidelines?

In paragraph 1.56, it is pertinent to mention which classifications and nomenclatures recommended in this manual are articulated and harmonized with those used by other international organizations.

In paragraph 1.59, it is suggested to include an example of products and services that are not sold but are disposed of in other ways.

In paragraph 1.78, it is useful to mention how the treatment of this type of gross fixed capital formation (by repair and maintenance) would be harmonized with the concept of depreciation and/or consumption of fixed capital.

In paragraph 1.86, if standardized tables for micro-macro reconciliation of figures exist, it is necessary to mention and make them visible.

In paragraph 1.91, it is necessary to clarify whether the term depreciation refers to the consumption of fixed capital. If not, what would be the scope and implications of this change in the national accounting guidelines? Likewise, it is highly useful to explain if the SCN will no longer use the term 'consumption of fixed capital' to differentiate it from the accounting concept of depreciation, along with the technical justification for the change.

In paragraph 1.95, it is important to expand the convergence of accounting standards (GAAP-IFRS) as a classification tool for accounting items and their alignment with national accounting transactions.

In paragraph 1.101, the concepts of 'thematic accounts' and 'extended accounts' are introduced, replacing 'satellite accounts'. It is important to mention the motivation for the change and what it implies in conceptual, methodological, and measurement terms.

Sweden

55/107
The Statistical Commission:

(e) Noted the concerns of some Member States about the impact of selected recommendations, emphasized the importance of addressing conceptual uncertainties, and stressed the importance of continuing to develop implementation guidance on the new recommendations to facilitate the implementation of the 2025 SNA in an internationally comparable way;
(emphasis added)

Our view there still exist conceptual issues in the draft 2025SNA that needs to be solved. In particular the valuation of output in the government and NPISH sectors as well as the inclusion of depletion in the production account. These inconsistencies can be solved by moving the proposed changes from the standard accounts to the extended accounts.

The main principles of social accounting:
There are at least three basic principles that a social accounting framework should comply with if it aims to be a statistical description of the economy in a society. These are:

to provide for an accurate physical description of economic events combined with prices as weights to create analytically useful aggregates expressed in monetary terms,
the definition of social costs as the use of human effort in productive activities and social revenue as value added created by human activity,
the recording of quantities, prices and values that are observable and possible to collect with statistical methods and thus are objective in the meaning of being independent of the organisations that collects the data and compiles the national accounts.
Some gaps might be filled to make the framework complete, but these should be kept to a minimum.

The main issue regarding the sum-of-costs approach for government output and depletion is that they do not represent social costs or revenue. Including a return on government capital in the valuation of government output is based on the opportunity cost concept, which is a hypothetical cost or revenue depending on the perspective. It is not part actual revenue or actual social costs in the SNA. Humans have not created nature and depletion is therefore not a social cost in the meaning of being the use of human labour effort including goods and services produced by human activity. Nevertheless, these two issues might have analytical interest and therefore can be part of the extended accounts.

Is material in the chapter clear when it comes to the conceptual guidance provided?

Comments: We think that the reference to GDP in para. 1.6 actually is related to GDP in volume. We would like to put more emphasis on volume measure of GDP and its main use as indicator. In order to avoid any misunderstandings between the concepts of volumes and real or purchasing power equivalents a clearer wording is needed. It is not clear what kind of price indices this paragraph refers to, genuine or implicit. It is also unclear what is referred to by 'a certain reference period'. The weights in the GDP volume at reference year prices are actually from different periods.

We propose the following wording of para. 1.6:

1.6 The volume growth of GDP is the headline indicator of economic performance. GDP also represents the resources made available to the society under a given period (year).Information in nominal terms is usually the starting point in supply and use tables but the real aim, in the SNA, is to enable the compilation of volume measures. Volume measures is the closest to a physical description of the economy we get when the SNA express data on goods and services in prices of a certain base period. In case the previous year is used as the base year a time series of volume growth can be expressed in the prices of a reference period (year). The volume measures are important in analyzing underlying economic activity. Complementing volume measures are measures of price change in the form of price indices, which are also an essential part of the SNA. These assist in the analysis of inflation, and can also be used to derive various analytically useful measures of purchasing power such as 'real' income.

Comments: The paragraph 1.89 links three concepts to each other: opportunity cost, current cost and replacement cost. This paragraph was introduced in SNA1993 but unfortunately there is a serious conceptual error in the paragraph by the statement that in the System of National Accounts (SNA) the opportunity cost concept is used as defined in economics. The careful reader will notice that the use of opportunity cost in the paragraph is not in line with economics. In economics opportunity cost is the difference between the chosen alternative and the best possible alternative. This difference is the income forgone by choosing a less profitable alternative.

The opportunity cost concept is used to evaluate different investment alternatives, and this necessitates speculation of the outcome of the different investment alternatives. In complex alternatives like investments in productive assets additional information and assumption may be needed. All in all, the opportunity cost concept is an analytical tool and due to its ex-ante perspective less useful in statistics.

By current cost recording is meant the recording of costs incurred due to activities undertaken in the current period. When production takes place inputs are recorded as costs regardless of when the payment is made, and the costs are valued according to the corresponding costs for acquiring the goods in the current period. By actual costs is referred to the actual payments for goods and services delivered in the current period and if inputs are taken from the inventory, what it, in the current period, would cost to replace the goods in the inventory. So, in this sense current cost and replacement cost are synonyms.

Current cost accounting is a way of accounting for the actual social cost of human productive activity. When basic prices on goods and services changes due to changes in labour costs or other reasons related to production (like the changes in the cost of extracting and harvesting natural resources) these changes reflect the change in actual social costs. The idea behind current cost accounting is that these changes also will be reflected in the valuation of inputs and output, if basic prices in the reference period, instead of historic acquisition costs, are used to record national accounts entries. This, we think, is one of the cornerstones in a social accounting framework.

In case an investment good is not produced anymore the basic price of the reference period will be missing. This is a situation when the replacement cost concept is useful. Since replacement cost is used to value consumption of fixed assets in the reference period (current prices) we ask what the cost is of replacing the lost production capacity in volume of our investment good. If we know how large this loss is in relation to the total production capacity, we can use the supply price in the reference year of the very same good. If this is missing we need to approximate the supply price by using information of the change in production costs or output prices of the enterprise or activity previously producing our investment good.

To summarise, opportunity cost compares the outcome of different alternatives in the same period whereas replacement cost compares the basic price of the very same good in different periods of time. These two concepts can therefore not be interchangeable as the paragraph 1.89 currently suggests. Furthermore, the opportunity cost is a hypothetical cost and not the same as the actual cost and as such can only be an approximation of the actual cost when data or other information on the actual costs are missing.

We propose the follow wording of para 1.89 (old para. 1.67):

1.89 Business accounts commonly (but not invariably) record costs on an historic basis, partly to ensure that they are completely objective. Historic cost accounting requires goods or assets used in production to be valued by the expenditures actually incurred to acquire those goods or assets, however far back in the past those expenditures took place. In the SNA, however, the concept of current cost is employed. The current cost is estimated at the time the asset or resource is used, as distinct from the costs incurred at some time in the past to acquire the asset. The best practical approximation to the current cost accounting, is when assets and goods used in production are valued at their actual or estimated current market prices at the time the production takes place. In case the asset or good is no longer produced valuation is made by reference to its replacement cost.

Comments: The term depreciation differs from consumption of fixed assets in several respects. These include business accounts use of historic costs versus current costs in the SNA and by the term depreciation in microeconomics is understood the market value of a good in relation to the value of a one period (year) older units of the same good noted in the second-hand market. In social accounting (SNA) the replacement cost concept is used meaning the consumed share, of a new item of the investment good that in the future needs to be replaced. The replacement cost method of valuation uses the current prices of new items rather than prices noted on the second-hand market.

As a consequence of changes in 1.89 we propose the follow wording of para 1.91 (old para. 1.69):

1.91 Current cost accounting has ramifications that permeate the entire SNA. It affects all the accounts and balance sheets and their balancing items. A fundamental principle underlying the measurement of gross value added, and hence GDP, is that output and intermediate consumption must be valued at the prices current at the time the production takes place. This implies that goods withdrawn from inventories must be valued at the prices prevailing at the times the goods are withdrawn and not at the prices at which they entered inventories. This method of recording changes in inventories is not commonly used in business accounting, however, and may sometimes give very different results, especially when inventory levels fluctuate while prices are rising. Similarly, consumption of fixed capital in the SNA is calculated on the basis of the estimated current replacement costs of the assets at the time they are used, as distinct from the prices at which the assets were acquired. Even when the fixed assets used up are not actually replaced, the amount of consumption of fixed capital charged as a cost of production should be sufficient to enable the assets to be replaced for a new good of the same kind. When there is persistent inflation, the value of consumption of fixed capital is likely to be much greater than depreciation at historic costs, even if the same assumptions are made in the SNA and in business accounts about the service lives of the assets and their rates of wear and tear and obsolescence. To avoid confusion, the term “consumption of fixed capital” is used in the SNA to distinguish it from “depreciation” as used in economics with a different meaning and typically measured in business accounts.

Eurostat

Para 1.10 “First, other than GDP, there is a very wide range of data and aggregate measures contained within the SNA’s sequence of economic accounts that can be used to inform discussion of wellbeing and sustainability.” It would be useful to give an example of these wide range of data and aggregate measures, as it’s not clear what is meant here, and it’s an important message!

Para 1.41: at the very end it would be helpful to add the full title of chapter 19.

Para 1.60: add reference to chapter 34.D.3, where unpaid household service work is described.

Section A ‘Chapter overview’, newly introduced, is useful. It would be useful to add it consistently to all chapters. The title of this section should also be harmonised: sometimes it’s called ‘chapter overview’ like here, sometimes just ‘overview’ as e.g. in chapter 5, in many cases it’s completely missing.

Para 1.65: the two references to "completely uncultivated forests" may be in contradiction with the text in 11.207: "It is recommended to treat these resources as cultivated assets, with all growth of trees which in the future are intended to be used for the purpose of producing timber considered as being established under some form of human involvement, instead of applying a discretionary choice between either managed and controlled or not managed and controlled by economic agents."

Para 1.81 includes a number of precise references to other macroeconomic manuals that will unavoidably become obsolete (plans are being made to update the GFS manual and the SEEA CF). Include generic references to these manuals, without mentioning the exact version? Same for the classifications?

Yale University

A core issue through the SNA revision that needs addressing is the use of the term exchange value. An exchange value is a price times a quantity resulting in a rectangular area. This is different then an exchange price, which is the price at which a good is exchanged. The price concept in the national account exchange framework is identical to the price concept in welfare economics, conditional only on agreement about the accounting boundaries. However, in the past exchange value has at times been used as price or exchange price, leading to lots of confusion. Please do a search of a final document and make sure this terminology is clear.

Germany FSO

1.12: Should mention examples regarding environmental sustainability: “A comprehensive assessment of well-being and sustainability requires additional measures, for example, measures relating to safety and governance or to ecosystems and degradation.”
1.65: “Completely uncultivated” can be replaces by “cultivated”, if cultivated/non-cultivated are a dichotomy in the SNA 2025

OECD

only one comment related to paragraph 1.65 which needs to be updated in light of the changes in treatment of biological resources, which define the difference between cultivated and non-cultivated processes differently.

Czech

The Czech Statistical Office welcomes the SNA update to reflect changes in economy. However, we still have several concerns regarding proposed conceptual changes that may leads to deterioration of international comparability. In particular, we oppose inclusion of a return to capital in the sum of cost approach. Michael Wolf [Sweden] provided detailed reasoning.

Chapter 2: National Accounts and Measures of Wellbeing

Yale University

A general issue in this section is the term well-being is not clearly defined upfront. The term welfare appears occasionally, but is the term in other chapters. What is the relationship between well-being and welfare?

2.1 -- Style question. I believe this should written in 3rd person not second person. (We v Societies). This should also emphasize that these are market adjacent, but not well addressed in the market.

2.14 -- This would be a good place to point that welfare is narrow than wellbeing, but covers a substantial area related to consumption related tradeoffs within and beyond the market.

2.15 – The term economic capital should not be used. The term produced capital (or built capital) would be better. Natural and human capital are also economic capital. 2.15 - social capital is not measurable in the same way human and natural capital are. Dasgupta is very clear that social capital is really more about institutional design. It is not a good term. Dasgupta, P., 2001, Human well-being and the natural environment. Oxford University Press, New York.

2.16 (Box last two bullets) -- these two seem fundamentally different. The first is not grounded in any economic theory. The second is really trying to solve a different problem. Not clear this will age well.

2.17 -- this is not a sufficiently clear definition. Do you mean welfare? If so, does actual willingness to pay, i.e., give up material consumption for non-market services affect welfare or wellbeing. This needs to be clarified. I recommend, well-being or 'material well-being' aligns with the economic notion of welfare. This includes consumption or non-consumptive decisions that influence consumption.

2.18 -- what about environmental quality experienced. It is well documented that environmental quality influences housing location choices and capitalizes into home prices.

2.19 – “Of particular importance are measures of unpaid household service work, such as concerning child care and food and meal preparation and environmental quality experienced.”

2.20 - collecting such data also supports future price imputation.

2.22 – Please clearly says that sustainability relates to changes over time rather than levels please.

2.23 – "The measurement of economic produced capital falls within the scope of the SNA sequence of economic accounts and encompasses produced non-financial assets, non-produced non-financial assets (e.g. contracts, leases and licences [sp]) and financial assets and liabilities while excluding natural resources which are included under natural capital." This is not correct. There is natural capital that is included within the non-produced non-financial assets. Something is very confused here.

2.24 – not sure what it means for something to be "more comprehensive?" Something is or is not comprehensive.

2.36 – The last sentence, "Nonetheless…" This is sentence confuses a number of points, because it is feasible and in scope to do monetary values for many of these stocks.

2.37 -- again produced is better than economic because natural and human capital are economic capital. Social capital should be removed from this sentence.

2.39 -- again, the use of the term wellbeing is confusing because it is not clear if it is used simultaneously with welfare. If it is, then some early national accounting attempts were attempts at Hicksian income, which makes the claim here disputable.

2.40 -- doesn't this ultimately just boil down to the breakdown being incomplete accounting in some places and potential double counting in others. This is not a theoretical challenge but a technical implementation challenge. It is also the case that welfare may not be the most helpful measure for proximate macroeconomic fiscal discussions, which is why some contributions to welfare may be omitted.

2.41 -- this really just speaks to a political-economic general equilibrium, but one where margins are not equalized because of voter rules.

2.45 -- This should be taken further, if the same outcomes require substantially greater output, then the opportunity cost of the inefficient system is very real, but could still lead to greater GDP growth.

2.48 -- This is not 100% correct. To the extent that these values capitalize into real estate prices, then they are reflected in the economy. They are also reflected in the economy to the extend governments protect these sites, which may influence the broader land market.
What is not included in the SNA are spiritual and cultural values for which no price is paid.

2.48 – what are called "welfare values" here are often net measures.

2.51 - some ecosystem services. There are certainly some ecosystem services within the boundary. Others are intermediate products that really just need disaggregation.
2.58 – "government such as law and order, environmental quality, and …"

2.71 - excluding biomass energy? This is confusing. It might be clearer to simply note that biomass energy was already included in the SNA, so this is not a new extension. 2.71 – "depletion of natural resources…" -- this is great.

2.80 -- (figure) - figure is confusing because there are some things that both in the SNA and the complement accounts, especially around natural resources.

2.86 -- It would be good to add: It is also possible that over time we will learn that such flows may be relevant for macro-economic decision making including budget forecasting.

Nepal

Expressed a vague concern with ‘the measurement of well-beings’

Colombia

In Figure 2.1, it is suggested that the 'accounts that complement the sequence of SCN economic accounts' be grouped into 'social and population statistics' and 'environmental and economic accounting.'

In paragraph 2.25, it would be appropriate to mention the key characteristics of human capital in this section, as has been done with the other capital measures, to maintain consistency in the text.

In paragraph 2.26, it would be very appropriate to mention the key characteristics of social capital in this section, as has been done with the other capital measures, to maintain consistency in the text.

In paragraph 2.28, if there are studies regarding volume and real-term measures, they can be listed in this section as a study recommendation for the reader, or even better, mention which ones and what price and volume measures would be recommended to use.

In paragraph 2.36, it would be appreciated if the series of purposes for which there remains an interest in knowing the value of flows and stocks in the social and environmental spheres is mentioned.

In paragraph 2.46, it is possible to mention that these measurements are related to advances in the generation of indices such as the Global Happiness Report, studies on citizen satisfaction perception, and the estimation of Gross National Happiness (GNH), unless subjective well-being has a different conceptual connotation.

In paragraph 2.55, it is necessary to clarify whether the term 'depreciation' refers to the consumption of fixed capital. If not, what would be the scope and implications of this change in national accounting guidelines?

In paragraph 2.61, this evaluation is mainly viable for final consumption expenditure measures. However, for other aggregates in the sequence of accounts, it will be necessary to find or predefine suitable price indices or deflators.

UK Statistics Authority

Vietnam

The chapter should concern about the additional information as follows:

add more information about "Education' in paragraph 2.95-2.96
add more information about "Human capital" in paragraph 2.97 - 2.98
add more information about "Household employment" in paragraph 2.94
to have a more specific view of the relationship between the theoretical framework and the actual situation.

Argentina

Precise definitions of the terms “welfare” or “economic welfare” and “well-being” or “material well-being”, as well as their similarities and differences in the context of the SNA, would be valuable.

Eurostat

In **paragraph 2.1** we read: “*There can be no doubting the relevance of measuring wellbeing and sustainability for all countries*”, what is the idea behind this sentence? It seems a justification for this chapter (and proposed chapter 34/35) without giving an actual justification like “measuring wellbeing and sustainability is important to understand and compare economies and societies”? It is too absolute too. The paragraph continues: “***We** face a real and growing range of economic, social and environmental challenges including poverty and food insecurity, social and health inequality, climate change and biodiversity loss.*” It seems inappropriate to us to write a statistical manual in the plural first-person pronoun form, except for the foreword. Who does the ‘we’ represent that faces all these problems? The authors? The international institutions? The statistical community? The 2008 SNA has two cases of ‘we’, one in the foreword and one in paragraph 20.23 in a pedagogic sense. Please also verify the we-use in footnote 3 of chapter 21 and **paragraphs 36.72 and 36.85**. The paragraph continues: “*In different but related ways these challenges affect our capacity to satisfy the needs of current generations (wellbeing) and to ensure future generations can satisfy their needs (sustainability)”.* Why in a different way? Poverty and food insecurity, social and health inequality, climate change and biodiversity loss seem to have a direct impact in how we satisfy the needs of current generations (wellbeing) and to ensure future generations can satisfy their needs. The paragraph ends with: “*Developing and implementing solutions to these challenges requires that a significant focus be given to the relevant measurement issues by the community of official statisticians and other experts.*” ‘The relevant measurement issues’ seems to refer to something, but it is unclear what issues are meant. Lastly, as ‘focus’ means ‘center of interest or activity’ it is not clear what ‘significant focus’ could mean.

In paragraph 2.5 it is written: “*For example, measures of household income and wealth may be disaggregated by type of household, gender and other characteristics*”. Is with ‘type of household’ the breakdown meant as described in 2008 SNA 4.158-4.165 and that ‘gender and other characteristics’ will be added to this list. Is gender added as part of the ‘reference person’ classification’? In a new SNA, the reference person should be better described as

2008 SNA paragraph 4.163 is ambiguous. Is it based on income or on consumption decisions? Furthermore, 'other characters' is vague and it might be better to give a complete list. Is for example the same social-demographic characteristics as listed in paragraph 2.16 meant? Since the various breakdowns in guidance note WS.2 are called 'possible breakdowns', it might be better to use this phrase instead also to signal that it might not be possible to compile such breakdown due to (pragmatic) considerations.

In **paragraph 2.9** mentions "*further research might focus*". Is this in anticipation of the research agenda (annex 4 in 2008 SNA)? It is furthermore not clear what is meant with "*wider framework*" and "*recording multiple value perspectives*". Is with '*multiple value perspectives*' the different valuations of assets meant (e.g. market value, nominal value face value, book value or fair value or net present value)? Or is the consumer surplus meant that adds to the 'exchange values' for individual consumers meant (paragraph 2.48)?

In **paragraphs 2.11-2.13** on conceptual framing of wellbeing and sustainability, it becomes clear that two 'entry points' for "*framing the concepts are considered most relevant*". These two 'entry points' are the work of the joint UNECE/Eurostat/OECD Task Force on Measuring Sustainable Development (UNECE, 2015) and the 1987 Brundtland Commission report. It is not clear if the other references in Box 1 are needed, as they are not part of these 'entry points'. This box seems a rather arbitrary list, as it is not clear why these are mentioned while others are not, such as the Canberra report of 2011 mentioned in guidance Note WS 2. Maybe it is better to put such a list in an annex at the end of the manual or leave it out altogether if it was just inspirational to the development of this chapter.

In **paragraphs 2.11** we read "*These will include the supply (or loss of) nonmarket benefits including those sourced from the environment, from unpaid household service work, and from the connections and relationships people hold with each other*." We note that this use of '*non-market*' is different from the concepts used to describe non-market production and producers. As a matter affect it seems to describe phenomena that are outside the concept of SNA. It is unnecessary confusing to use such crucial SNA terminology for a phenomenon that is not measured in SNA.

On **paragraph 2.18** when discussing more details for household consumption regarding the goods and services consumed it might be useful to refer to COICOP.

On **paragraph 2.20** it seems that with 'non-monetary' terms for measuring wellbeing the volume component of transactions is meant (quantities consumed, hours worked, etc). It is not clear what the purpose of this paragraph is as the usefulness (or necessity) of measuring volumes is well established. Moreover, this use of 'non-monetary' is confusingly different from the 'non-monetary' as described in 2008 SNA paragraphs 3.75-3.90 that is reserved to describe barter, remuneration in kind, payments in kind other than compensation in kind and transfers in kind. The SNA editors should not use one term to describe two different phenomena and hence should find another word.

Paragraph 2.21 mentions "*income and wealth deciles/quintiles, household type, home ownership status, gender, age group, education level or employment status*" as socio-demographic characteristics. Where does the list come from? We note that guidance note

WS.2 has similar but different lists, for example in paragraphs 45 and 87 of this guidance note.

Chapter 2 makes inadequate reference to the fact that the classification for natural resources is new, and then describes it in a confusing way. Para 2.22 introduces the term ‘economic’ capital, suggesting that economic capital is AN1 and AN2, and not AN3 (natural capital), but without reference to the fact that this is classification designed for analysis of sustainability, not for the SNA. Para 2.23 goes on to describe the scope and sub-classes of ‘economic’ capital. The term is discussed at some length in Chapter 35 with excellent diagram – Fig 35.1 – and to avoid confusion this should be made clear and reference made to Chap 35. Also, Chapter 35 makes clear that natural resources are inside the production boundary because economic benefits flow from their use, ie in an SNA sense they are economic assets, and so it is confusing to suggest in Chapter 2 that they are not ‘economic’.

Paragraph 2.24 we read “*The scope of the SEEA covers natural resources, land and ecosystems and includes measurement of (i) the non-market ecosystem services supplied by ecosystems (e.g. global climate regulation, air filtration and water regulation); (ii) the pressures exerted on the environment through economic and human activity (e.g. flows of air pollutants, solid waste, wastewater); (iii) the changes in the condition of ecosystems due to human activity, both positive and negative; and (iv) responses by economic units in terms of expenditures, taxes, subsidies and other flows recorded but not separately identified in the sequence of economic accounts*”. It seems that the notion of ‘non-market ecosystem services’ does not stem from the central framework but is mentioned in the SEEA Experimental Ecosystem Accounting framework (paragraph 5.95. As the SEEA consist of more than one framework it seems better to be precise what SEEA framework is referred to instead of ‘the SEAA’ for transparency reasons. Furthermore, is this the same notion as non-market as used in 2008 SNA (paragraphs 6.128-6.132) as this is not clear to us from SEEA Experimental Ecosystem Framework paragraph 1.3. If this is not the same notion of ‘non-market’, another term should be found in order to mitigate the current confusion. If this is the same notion of ‘non-market’, and thus entering government production and consumption, what is the link with COFOG, in particular with division 05 (environmental protection) and division 06 (housing and community amenities)? Is there a link to be made between the activities mentioned in the above sentence and ISIC? Finally, is there a link to the newly proposed (memorandum) item ‘ecosystem asset’?

Para 2.24 says “the non-market ecosystem services supplied by ecosystems…” The term non-market does not seem correct or helpful here

On **paragraph 2.31** it is written “*Consistently applying the same measurement boundaries over time provides a pragmatic system boundary to underpin analysis. For example, establishing the boundaries of economic territory consistently across countries allows interactions between these economic systems to be recorded coherently. The connections across different accounts are further reinforced through the consistent use of classifications, for example of economic units and products.”* One of the great innovations of the 2008 SNA was that physical moves across the boundaries of a territory no longer determining exports/imports but rather the change of ownership, so this seems perhaps not correct – or is something else meant with “*interactions between these economic systems*”? Furthermore, the wording ‘*allows*’ seems to suggest that as long as boundaries of economic territory are well established, a coherent Balance of Payment can be drawn up as a sufficient condition. This seems not the case as the following sentence illustrates. Finally it is not clear what is meant with 'pragmatic system boundary'. As the word 'pragmatic' is often used by compilers to deviation from the normal accounting rules (e.g. due to lack of source data) it should be well explained what it means.

On **paragraph 2.32** it is written "*While measurement boundaries may change, accounting approaches retain the benefits provided through a systematic recording of stocks and flows, i.e., consistency, coherence, comparability and repeatability*". It is not clear why these 'measurement boundaries' change especially since in the paragraph before it is promoted to *"Consistently applying the same measurement boundaries over time"*. It might be that the 'alternative measurement boundaries' are meant here, but our understanding (e.g. paragraph 2.38) is that this alternative data collection is supplementary to the core SNA, i.e. it doesn't change the other 'measurement boundaries'.

On **paragraph 2.33** the link between 'unpaid household work' and 'measures of health care expenditure' is not immediately apparent. Is it meant that the care of one household member to another household member could be considered as 'missed' production in the SNA, similar to cooking your own meals? Is it meant that monetary expenditure on health care is a substitute to providing the service within the household? Indeed, it can be considered a substitute in the same sense that taking the train is a substitute for taking the car. However, it cannot be considered the same service as the provision of care by a professional is not the same as the service provided by your loved one within the household. Furthermore, reasoning from an opportunity cost point of view it implies that when the service is provided within the household instead of bought from a health care provided, the value of this internal service should be valued higher than the tariff of the health care provider?

In **paragraph 2.37** the concept of wealth accounting as a broader monetary measure that is accounting-based is introduced as being a useful concept for policy making. It is written that it is used for "*measures of comprehensive and inclusive wealth by the World Bank and UNEP, as well as work at national level in a range of countries*". What is meant with 'comprehensive and inclusive wealth'? Is it the same concept of inclusion as in **paragraph 16.105** on unpaid services for own final use by households?

We note that now in **paragraph 2.40** the phrases "relative marginal costs of production" and "relative marginal benefits or utilities" are used instead of "relative costs of production" and "relative benefits or utilities". We propose to delete 'relative' as in micro-economic theory determining prices in a prefect market setting it is the marginal cost and the marginal utility that sets the price. Also it is not clear to what such marginal costs are relative to? Furthermore, what seems missing here is a sentence to say that a macro-economic framework such as the SNA is not designed to measure micro-economic (individual) utilities of consumers and companies. Also, it seems a big leap to go from marginal costs (which is a micro-economic concept at individual consumer/producer level) to aggregated production and demand (which is a macro-economic concept, i.e. the sum of all producers and consumers) to well-being without further explanation.

UK Statistics Authority

In **paragraph 2.45**, the distinction between ‘outputs’ and ‘outcomes’ is discussed. It seems to argue once more that the consumer surplus (called the outcome) received from consuming the medicine (the value of an improved length and quality of life) is larger than the price paid (dubbed ‘exchange value’ in the new SNA) to obtain the medicine (being the output of producers). It could be mentioned that this consumer (and producer) surplus exists on all products consumed not just health products and that it is a prerequisite for a transaction to occur on the open market as prices are set up to the point where the individual producer and consumer has no more surplus (see discussion on ‘marginal’ above). However the SNA is a macro-economic framework that is not designed for measuring such surpluses on micro-economic level.

Paragraph 2.47 reads “*Third, the measurement of material well-being discussed here does not encompass the recording of data on spiritual and cultural values or values and preferences with respect to the environment and nature. Some aspects of these values may be reflected in measures of subjective well-being and some aspects will be reflected in measures of stocks and flows related to natural capital in biophysical terms. However, while these values will be relevant in an overall assessment of well-being, the incorporation of them within an accounting framing requires further investigation*”. It is not clear how (and which) aspects of spiritual and cultural values or values and preferences with respect to the environment and nature are reflected in measures of stocks in biophysical terms. If these spiritual and cultural values are reflected in market (exchange) value, we could agree, if this isn’t meant we disagree as SNA should not favour one spiritual or cultural value over another.

Paragraph 2.53 Now we read: “*Four Three areas are introduced in this section: measures of income and consumption, measures of wealth, and measures of distributions across households and measures concerning the environment*.” First, arguably these are five areas not four as there is no a priori reason to group income (most important balancing item disposable income B.6) and consumption (P.4). Second, it seems better from a sequence of economic accounts point of view to put ‘wealth’ after ‘distribution’.

Paragraph 2.58 uses ‘public goods’ where it means ‘goods for collective consumption’ similarly to existing passages in 2008 SNA which describe the delineation between individual and collective consumption expenditure. This is good but then the term public goods should be avoided in **paragraph 2.66**, where both individual and collective services are mentioned. In paragraph 2.58, in the second last sentence “government consumption” should be changed to “government (actual final) consumption”.

On **paragraph 2.62** “investment” is equated to “capital formation”. Please use the correct wording ‘gross fixed capital formation’ (if our proposal is not accepted to drop the ‘gross’ part in the new SNA as it is fundamentally a net transaction due to disposals). Please reconsider the use of ‘investment’ throughout the chapter (see also **paragraph 2.66**) in this way as this is often used to include or solely mean financial assets. Also in the use of ‘investment income’ (2008 SNA paragraph 7.108) it refers to financial assets.

In **paragraph 2.66** it is not clear what ‘determining capacity gaps’ means in this context. Also, when discussing the “support the supply of public goods and services (e.g., investments in roads, hospitals, schools, energy and water supply, etc.)" it might be good to refer to COFOG. However, a compilation of capital stock along the lines of these categories seems rather challenging, and it is not so clear, what the benefit in comparison to already developed capital stocks by industry is.

The following sentence in **paragraph 2.54** is unclear: "*Such spatial information can be of high relevance in understanding the variation in trends in well-being across a country but also in terms of supporting policy responses in cases of catastrophic events such as floods, hurricanes and storms*". Is meant that the impact of such catastrophic events could be measured and aid the policy responses to the disaster? Such spatial information normally comes with a very large time lag. For example, in Europe the transmission to Eurostat of national account data per region of household accounts (NUTS level 2) is done with a two-year delay. That seems too late to help for most policy responses. If regional data is to be used to assess the vulnerability before the catastrophe indeed such regional data can be used.

The following sentence in **paragraph 2.70** is unclear: "*As well, the sequence of economic accounts contains data on transactions that can be associated with the environment such as environmental protection expenditure (and associated financing arrangements), environmental taxes and subsidies and payments for access to resources*". Is COFOG division 5 meant with environmental protection expenditure? Please note that COFOG at group level is readily identifiable in standard presentations of the economic accounts in Europe. If this COFOG division is meant, please rephrase the term 'financing arrangement' as it can easily be misunderstood as to include financial transactions that are not part of the expenditure definition in SNA. If COFOG is not meant, please use another term to avoid confusion.

In **paragraph 2.70** it now says "Current refinements to the SNA sequence of economic accounts concerning environmental issues

build on advances in accounting described in the SEEA." First is the experimental framework meant here as we understood that the central framework is consistent with 2008 SNA (see paragraph 6 of the 2012 SEEA CF)? In other words, it is better to be precise what SEEA is meant. Second as the SNA is refined in 15 years intervals 'current' might not be the best wording.

Paragraph 2.74 reads: *Second, the accounting approaches include accounts in both monetary and non-monetary terms thus supporting the organization of a wider range of information than recorded within the SNA's accounts.* As in the SNA framework we distinguish volumes (and prices) this seems not accurate.

The following sentence in **paragraph 2.75** is unclear: "*For example, accounts for flows of water and energy and accounts for unpaid household service work can be connected to standard production accounts and household sector income accounts.*". What is meant with 'flows of water'? A river? Rain? Transactions and other economic flows of AN.214 assets (water resources)? Also, how can these flows be 'connected' to standard production accounts and household sector income accounts?

In **paragraph 2.83** we read this sentence: *However, the connection between the two systems has allowed the significant advancements in the SEEA since 2010 to provide important inputs* *to the update of the SNA within the general intent to harmonize concepts, increase the visibility of environmental issues and refine valuation concepts and methods across both statistical frameworks*. We suggest adding "where possible" after "*harmonize concepts*". It should be stated that different accounting frameworks are in place to measure different phenomena, therefore leading to different definitions that should never be harmonised. The only thing that should be assured is that not the same terminology is used for these different phenomena. For example consistently refer to 'economic asset' and 'environmental asset' instead of just 'asset'.

In **paragraph 2.87** we read "*In accounting for flows, ecosystem accounting provides a framework for recording flows of ecosystem services such as biomass provisioning, air filtration, water purification, coastal protection, pollination and recreation related services that collectively contribute to human well-being either as inputs to market goods and services or in providing additional non-market benefits*". Is the SNA definition of market/non-market used? Why are 'goods and services' used in the first and 'benefits' in the second? Is there a CPC link in the first but not in the second?

In **paragraph 2.92,** when mentioning health care expenditure of general government a reference to COFOG division 07 should be made.

OECD

2.23: The discussion on economic capital explains that it includes produced and non-produced nonfinancial assets and that this covers "the values of the stock of produced capital and changes in those values including due to investment, depreciation and revaluation". This implies that this is comprehensive, hence, that natural capital does not concern any produced capital. However, we don't think that is correct.

2.59: Reference is made to the 'distribution' and 'redistribution of income' accounts. This does not seem to be in line with the new official terms.
2.60: Should reference be made to the adjustment for the change in pension entitlements in deriving saving?

2.36: Examples are provided of non-monetary information after which it is explained that this may lead to more comprehensive linkages between the economy and the environment, but the examples go beyond the environment. Thus, maybe reference should also be made to 'society' or the sentence may need to be rephrased.

2.73: "Supply and use tables, balance sheets and asset accounts". What is the difference between the latter two?

Figure 2.1:

- The figure refers to "(Supply and Use tables) under 'Production, income, consumption, saving'. As people may misinterpret this as all of this information being captured in SUTs, we would suggest changing that reference to "(including Supply and Use tables)". A related question is whether reference should also be made to IO Tables (as part of the SNA sequence of accounts or as thematic account)?

- We suggest to change ‘accounts that complement the SNA sequence of accounts’ into thematic and extended accounts as these are the new terms used.
- The figure seems to imply that unpaid household service work accounts and environmental flows accounts only relate to ‘production, income, consumption, saving’, whereas education and training accounts, health care accounts and environmental transactions also relate to capital and financial accounts. However, unpaid household service work and environmental flow accounts may also have links to capital accounts (i.e., via the use of consumer durables and the impact on stock measures respectively). Furthermore, I assume that the difference between environmental flow accounts and environmental transactions is that the former are covering non-monetary information and the latter monetary information. But such a split is also relevant for unpaid household service work. Furthermore, is ‘environmental transactions’ the correct terminology to refer to the relevant accounts (maybe ‘accounts for environmental transactions’)

Somewhat more text on how to read the figure may be useful. In that, we suggest to align the order of text boxes in the figure with the order followed in the text (e.g., it is confusing that “labour market tables” are portrayed as part of the SNA sequence of economic accounts, while the section Labour (para 2.89 and 2.90) is placed between SEEA and Health care which suggests it is a thematic or extended account.

Italy

§ 2.9, (ii): concerning this issue, this is what the present chapter should do and indeed it succeeds in doing it but for the important shortcoming highlighted in question 2; (iv) "clarifying the limits" would be better referred to "monetary aggregates" than to "accounting"; (v) is not appropriate as a research item for the SNA, unless "having regard to all possible approaches to sustainability and well-being": how to use the SNA is a policy issue (e.g. a de-growth approach to sustainability and well-being would use the SNA very differently from how it is used to support economic growth).

§ 2.14: the goods and services "that are outside the scope of the SNA production boundary" are not "consumed". They may be "used" by people, or people can benefit from them, but are by definition not a kind of consumption.

§ 2.15: "from an accounting perspective" "assumptions about how benefits may change in the future" are out of the picture.

§ 2.24, (i): ALL ecosystem services are "non-market", by their very definition. (iii) "both positive and negative" suggests a binary classification of the "changes in condition of ecosystems due to human action". Reality in much more complex than

UK Statistics Authority

that, there hardly is a universally definitely positive or negative change. Even climate change has advantages for some.

§ 2.36: "there remains an interest in determining monetary values..." presents this interest as impersonal. While widspread, however, the interest in question is not universal. It would be fair to mention the strand of thought (popular e.g. in ecological economics), based in cognitive science and empirical observation of effects of monetisation, according to which such valuation is counterproductive.

§ 2.42: "it is the case... alternative production boundaries... improved measures of changes in well-being". Even if this is a widespread idea, it would be fair not to present it as undisputed.

§ 2.44: "If there is no financial penalty... could go unmeasured in the SNA". Penalties do not measure the effects of well being. These effects are, per se, never measured in the SNA.

§ 2.48, beginning: "potential to use GDP" => "potential to use the SNA"; towards the end: "there are connections between these valuation concepts", please specify "deriving from the welfare economics tradition".

§ 2.55: deducting the depletion of natural resources to derive net measures is an error.

§ 2.66: not only measures in real and per capita terms are important, but also in non-monetary terms.

§ 2.71: the inclusion of the value (wrongly attributed to) of natural renewable energy resources (wind, solar) does not derive from the SEEA! SEEA does not propose such a valuation. Their value, by the way does not measure natural resources, but always the value of something (energy in this case) that is derived from them. see also 2.55 above.

§ 2.72: "There is widespread acknowledgement...". While the significance of monetary measures is presented as universally accepted, the aknowledgement of the relevance of aspects "that are not captured within the ...SNA" is presented as "widespread". We propose to invert the terms, as it is indeed true the opposite.

Figure 2.1: not clear what it means to communicate, in relation to the dimension and placement of the boxes in particular.

§ 2.83: SEEA organises also economic data

§ 2.85: in SEEA CF no "extension" of the SNA measurement boundary is explicitly made. The relation to the SNA's boundaries is surely discussed in the SEEA, but not presented in general as an extension. Only for SUTs this expression is used.

§ 2.87: "Natural capital" is never used in the SEEA to qualify its object of accounting. It is used to refer to a specif approach, which need not be that of the SEEA.

Germany FSO

2.30 As regards "…*depletion, degradation and depreciation of a system´s stocks…*", it is not very clear what "degradation" conceptually represents in the context of the SNA (degradation mentioned also in paras 3.143, 7.265, etc.).

On one hand, degradation seems to be put on a par with depletion (e.g. in Table 27.1), on the other hand degradation is given as an example for recording of other volume changes (see para 13.31).

The SEEA-CF (5.90) considers then depletion as a specific form of degradation.

Thus, we wonder, how is degradation defined for SNA purposes including what is the difference between depletion and degradation in the SNA framework.

Figure 2.1 A broader and enhanced combination of accounts – in general, it is very important figure, however, the name of this figure is not fully clear. What does the expression "enhanced" mean? Why do we need it there? Please delete or explain.

Moreover, this figure should be reviewed and corrected. We think that it should describe what is offered within the integrated framework and what else (within a broader framework) could be considered for well-being and sustainability, e.g.:

1. Integrated framework of national accounts:

- Sequence of economic accounts (…)
- Other parts of the integrated framework (SUTs, Labour market tables)

2. Extended & thematic (and supplementary) accounts and tables:

- Household Distributional Accounts
- Education and training
- Unpaid household service work
- Health care
- Tourism, transport, oceans, non-profit institutions
- Human capital

3. Data from the SEEA

- environmental flow accounts, environmental transactions, accounting for ecosystems, ...

In addition, the field "Accounting for natural capital (natural resources and ecosystem)" in Figure 2.1, is confusing, as "natural resources" (AN.31) are covered by the sequence of economic accounts. In addition, as the System of Environmental-Economic Accounting (SEEA) - Central Framework is recognized as international macroeconomic standard (see para 1.81), data from this system should be shown in this Figure 2.1 in a separate block.

Finally, provisions of Ch21, in particular Box 21.4 on Taxonomy of the different accounts / tables should be considered.

Israel

2.1 “there can be no doubting….” Perhaps the sentence is not needed
“we face..” who are we? Perhaps “the world faces..”

2.15 “a range of capitals economic, natural..” is economic=produced? Does not seem right. Should be defined precisely. The definition appears in 2.23 – should be at the beginning.

2.37 if changed to “economic” then “including financial” should be deleted

2.57 here “material” instead of “economic” - a new concept

2.62 here talking of “value of natural capital” shows that the use of “economic capital” vs natural capital may perhaps be misleading

United Arab Emirates FCSC

Recommendation: There is an ongoing effort to integrate environmental and social dimensions into economic accounts. This includes measuring the impact of economic activities on natural resources, the environment, and social welfare, and defining the boundaries of production concerning the positive effects of environmental activities, such as biological control. This requires developing new methods and measures with clear, applicable standards that align with the varying levels of statistical systems worldwide.

Comment: New net measures are needed to provide valuable insights into well-being and sustainability.

Chapter 3: Overview of the Integrated Account

South Africa

Inconsistencies relating to the use of the phrase “Accumulation of assets accounts” and “Accumulation accounts”

According to terminology in chapter 21 should it not be Accumulation of economic asset accounts and not Accumulation accounts?

Eurostat

Para 3.35: “The classification of assets distinguishes, at the first level, financial and non-financial (produced and nonproduced) assets”. The first level classification of assets now includes natural resources. A reference should be included in the brackets: (produced, nonproduced and natural resources).

UK Statistics Authority

Para 3.102: “Both accounts show how, for the relevant sectors that undertake final consumption (that is, government, NPISHs and households), …” Add Central Banks in the brackets, in line with para 1.27d, as they also undertake final consumption?

Title Net and gross measures (introducing paras 3.142-3.143): Suggest to change the title to “Net Domestic Product”, to put NDP on pair with GDP. The current title gives a lower ranking to NDP.

Para 3.148: should NDP and NNI be added to the list of aggregates per head of population (currently GDP, GNI and HH final consumption)?

General comment: due to missing tables in this chapter, it is hard to understand some parts as well as see the implications of changing terminology (i.e. changing ‘resources’ to ‘revenues’ and ‘uses’ to ‘expenditures’).

Paragraph 3.6 explains the concept of debit/credit and party/counterparty (i.e a quadruple accounting system) without calling it so. It feels like a missed opportunity to explain this concept.

Paragraph 3.13: While of course a non-financial transaction should occur in tandem with a financial transaction (exception e.g. in case of some imputations and transactions in kind), the wording in the second part of the sentence seems unclear and possibly imprecise. Maybe “the specific nature of the settlement in terms of financial instrument is not measured in aggregate compilations, as the financing of different non-financial transaction is fungible in nature”?

Paragraph 3.16 explains “The fundamental units identified in the SNA are the economic units that can engage in the full range of transactions and are capable of owning assets and also typically capable of incurring liabilities on their own behalf. These units are called institutional units. Further, because they have legal responsibility for their actions, institutional units are centres of decision-making for all aspects of economic behaviour. In practice, some institutional units are controlled by others and thus in such cases autonomy of decision is not total and may vary over time. Legally independent holding of assets and liabilities and autonomous behaviour do not always coincide. In the SNA, preference is generally given to the first aspect because it provides a better way to organize the collection and presentation of statistics even if its usefulness is limited in some cases.” Why was “also typically capable of” introduced? It seems not needed and it would be better not to change the existing text. Second, it is regrettable that the legal status is still considered less relevant than the economic reality and that the gap to ESA 2010 was not closed in this respect.

Paragraph 3.17: it should better read: “it also typically includes the central bank”. Presumably, the central bank can only be recorded separately from general government in case an institutional unit can be identified.

Paragraph 3.24 explains “Finally, some observable monetary transactions are not recorded as they are observed in practice because they are of a composite nature (nominal interest on loans and deposits provided by financial intermediaries, total insurance premiums) or their legal nature does not correspond to their economic one (financial leasing). Consequently, for the SNA, they are split up into various components and their classification and routing are modified." This is not entirely correct as (of course) the monetary flows are recorded as transactions in F.2. Note that F.2 is never rerouted either. Rather than not being recorded, the transactions are partitioned. In the case of FISIM, the D.41 and P.2 transactions are partitioned, but not the F.4 transaction. This should be clarified. It would be for example better to revert the following change, which introduces an error: "on loans and deposits provided by financial intermediaries", while the deletion of "nominal" is good. (As in other places, the newly introduced terminology ("interest and other similar income") is not followed, leading to difficulties and confusion.

In paragraph 3.31 the distinction between new and existing fixed assets is a bit semantically strange as new assets also 'exist'. Why not use the SNA update to change into 'new' and 'second-hand' or 'newly produced' and 'previously produced' to identify whether it is part of current P.1 or pervious P.1 (throughout the SNA).

Paragraph 3.39: why not reference updated ISIC and CPC? Is the yellow marking an indication that an update will be assured?

In paragraph 3.44 is rewritten by changing 'resources' to 'revenues' and 'uses' to 'expenditures' by conveniently using wages and salaries as example. But what about typical national account concepts of production (P.1) and consumption (P.3/P.4)? It was, at least for didactical reasons, very useful to distinct resources from revenues and uses from expenditure for this reason (see also the GFS presentation). This should be explained (also in paragraphs 3.88-3.90 for P.1 and 3.102-3.105 for P.3/P.4), but preferably the decision to rename resources and uses is reversed. For European GFS it poses large difficulties as currently "total revenue" and "total expenditure" are being used.

Paragraph 3.61: The last sentence gives the impression that market values as observed in market transactions should be disregarded for the valuation of non-financial assets. This is going even beyond the innovations included in the list of consolidated recommendations and should be rephrased.

Paragraph 3.96 and the title above: It would be good to harmonise the renaming of the secondary distribution of income account. When such long names are being used, maybe italics or single quotation marks might help the reader follow the text. In chapter 21, 'transfer income account' seems used (in table 21.8a and b, but not in table 21.9). It may be better to be more conservative on the changes in terminology if the result is that there are 3 names for 1 account.

In paragraph 3.105 we read: "The central bank also has collective consumption, but typically does not transfer individual goods and services at prices which are not economically significant to households." This is a rather large change to SNA with a lot of implications to the system. Why not consider that the non-market output produced by S.121 is consumed by S.13 as a convention? This would imply a smaller change to the framework, than recording a current transfer by banks rather than a tax. These payments are compulsory and unrequited and the rationale for this change and why it should be an improvement is not clear. If P.32 of S.13 a COFOG function need to be attributed. If P.32 of S.12, is there a suggestion for a new functional classification of S.12 expenditure for only one type?

Paragraph 3.111: it is a pity that capital transfers expenditure should still be shown with a negative sign on the “wrong side”.

Paragraph 3.143 does not mention the impact of “depreciation” and “depletion” on the gross value added of non-market producers and thus gives the impression that the gross value added measures are not impacted by the changes in the 2008 SNA, including their reliability and comparability between countries. Why is “degradation” mentioned? Is it different from depletion? Also, why is it assumed that estimates of depletion already exist?

In paragraph 3.163 we read: “In relevant cases, information is also provided on the links with other macro-economic standards, such as the Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG) 2016 in the chapter on financial corporations, and the Government Finance Statistics Manual (GFSM) 2014 in the chapter on general government and the public sector (…)”. In general, the reference to specific versions of the manuals should be avoided as they are all undergoing update and this avoids referencing versions that are outdated almost from the start of the SNA life cycle. See also comment on paragraph 1.81.

Paragraph 3.176 reads: “From whom-to-whom-tables are also useful for current transactions, such as property income and current

transfers, as well as capital transfers. In the case of various property income items, a link may be established with related assets and liabilities in the balance sheets on a from-whom-to-whom basis.” This is a very informative piece of text as it points to the relationship between property income paid by the debtor to the creditor and the underlying asset. What seems to be missing is, as we think to understand, the SNA wants to adopt the transactor approach (i.e. a transaction between the old creditor and the new creditor instead of recording a transaction vis-à-vis the debtor) for transactions in financial instruments. The link can only usefully be established in the debtor-creditor approach.

Paragraph 3.184 mainly covers supply use frameworks, there are lots of monetary satellite accounts (e.g. health, education, social protection, tourism, etc.), at least in Europe, which are more or less consistent with national accounts. Why is SEEA singled out here?

Paragraph 3.37-why cite CPC 2 when CPC 2.1 is available?

Paragraph 3.39-Should be ISIC 5 rather than ISIC 4.

UK Statistics Authority

Chapter 4: Flows, Stocks and Accounting Rules

Netherlands

Paragraph 4.47: It is unclear to what extend this applies to financial transactions. Should the financial transactions of a clearing center for example be removed from the accounts as this is just "arranging for a transaction to be carried out"?

Eurostat

Para 4.110: consider redrafting the last sentence by replacing “have been grouped together“ with “are classified differently”.

Para 4.182 on Valuation of rerouted transactions: We understand that this paragraph is taken from BPM6. It recommends that RIE are distributed in proportion to the direct investor’s ownership, based on “shares in net saving”. ESA 2010, instead, does it in “proportion to their ownership of the equity”. We believe that the ESA rule is clearer and easier to administer as the proportion of ownership is a specific requirement of FDI statistics, so should be readily available, while net saving of the foreign DIE may not be available as the compiling institution may not have information on the value added, operating surplus etc. needed to calculate the saving of a non-resident enterprise. Values of rerouted transactions will have to be derived from values of other observed transactions to which they are related. For example, values of transactions in reinvested earnings are derived from the direct investors’ shares in the net saving of the (foreign) direct investment enterprise before reinvested earnings are distributed. We would recommend to adopt the ESA rule.

Para 4.295: “Regarding the extent of capital services, **i.e. depreciation, depletion** and return to capital, all non-financial assets used in the production of the relevant goods and services should be included, thus not only fixed assets but also **inventories** and non-produced non-financial assets.” Do inventories deplete or depreciate? Which capital services do they provide? Is this consistent with 17.3 which do not mention them as providers of capital services? See also 11.95 for military weapons inventories not providing capital services.

General comment: We note that the discussion of stocks is moved to after the discussion of flow (from 2008 SNA chapter 3 part B 2025 SNA chapter 3 part C). What is the reason for this shift? From a didactical point of view it could be argued that flows should be explained as the difference between opening and closing stock thereby making it logical to first explain stocks as in 2008 SNA. In some places it seems that this choice needed to be reflected in the text but it did not lead to a change (e.g. see paragraph 4.88 of 2025 SNA / 3.18 of 2008 SNA).

In becomes clear that the term ‘resources’ is replaced by ‘revenues’ and ‘use’ is replaced by ‘expenditures’. This seems to create a problem for some transaction that were typically not recorded as revenue or expenditure (for example P.132 of general government).

In **paragraph 4.21** “*typically*” is added before “*able to incur liabilities*”, which is a weakening of the definition of institutional units. It is not clear now what units, that are not able to incur liabilities, are nonetheless being considered institutional units instead of being part of the controlling unit. It is not clear on which basis this change is included.

We strongly disagree with **paragraph 4.24** that promotes the transactor approach.

4.35 This paragraph omits social contributions other than those in the context of social security, i.e. other social insurance schemes, for which the same treatment applies. I.,e. "social security contributions" should be rephrased to "social contributions" and "social security funds" should be rephrased to "social security funds and other social insurance schemes" or simply "social insurance schemes".

The treatment of social insurance scheme services charges (D.61sc) and households' social contribution supplements (D.614) might be elaborated here, too.

In general, the paragraph seems not updated from SNA 93 and update and completion seems needed.

4.36 “Similarly, the transfer elements of lotteries and other gambling are transactions through the gambling operator, but they are rerouted to occur directly between those participating in the lottery or gambling, that is, between households and possibly to charities (See paragraph9.xxx(SNA)/ paragraph 9.xxx (BPM.). [Editors: This is based on paragraph 3.16, BPM6]"

The new paragraph is misleading at best. ESA 2010 4.135 is very clear and might simply be copied.

The problems in this paragraph are the following:

a/ It is not clearly explained that there is a service charge typically payable to the lottery organiser, i.e. the amounts received from ticket sales net of the winnings paid out .

b/ "and possibly to charities" seems incorrect. if the service charge is distributed to charities, isn't this a current transfer between NPISH or from government to NPISH? (with further possible rearrangement needed).

c/ "other gambling" should be complemented by "activities".

d/ "rerouted" seems incorrect. "rearranged" should be used.

4.47 We note that “*Units facilitating a transaction on behalf of other parties”* is renamed into “*Reassigning transactions*” which is in line with the terminology of 2014 GFSM (paragraph 3.30). However, it seems not to bring any more clarity. Why not call it “*Recognising the principal party to a transaction*” in line with ESA 2010?

4.48 “A second example is the collection of taxes by one government unit on behalf of another. The SNA /BPM follows the guidance of the Government Finance

Statistics Manual (International Monetary Fund (IMF), 2001 2014), known as GFSM 2014 2001 as follows. In general, a tax is attributed to the government unit that (…)"

No reference to GFSM is needed here, the principles are adequately stated without without needing any references to GFSM. It should be eliminated and the SNA should not refer to other handbooks for rules that are not subject to the same consultation procedure as the SNA.

Moreover, generally, references to specific versions of other international manuals should be avoided, in particular, as the GFSM 2014 is currently being updated. This avoids being outdated being outdated from the start.

4.49 (old paragraph 3.71) "*Any amount retained by the collecting government as a collection charge should be treated as a payment for a service. Any other amount retained by the collecting government, such as under a tax-sharing arrangement, should be treated as a current grant. If the collecting government was delegated the authority to set and vary the rate, then the amount collected should be treated as tax revenue of this government.*" This should be reviewed. The amounts retained do not meet the definition of a sale and instead have the nature of other current transfer (D.73). There is no "market" among tax collecting government agencies and rather an agreement that amounts will be retained. It is at odds with GN SW.14 on not treating this kind of administrative "fees" as P.11 or P.131 and at odds with agreed guidance in the European context. (https://ec.europa.eu/eurostat/documents/1015035/2041357/GFS_interpretation_Borderline_between_transfers_and_purchases_of_goods_services_between_S13_units_2024_02_09.pdf/3eddb0f0-2e64-f85c-d626-67391d73ba6c?t=1707812144753)

In **paragraph 4.71** (also in the 2008 SNA paragraph 3.93) it is written: "*Further, there would be considerable technical difficulties involved in trying to associate economically meaningful values with externalities when they are intrinsically non-market phenomena. As externalities are not market transactions into which institutional units enter of their own accord, there is no mechanism to ensure that the positive or negative values attached to externalities by the various parties involved would be mutually consistent. Moreover, accounts including values for externalities could not be interpreted as representing equilibrium, or economically sustainable, situations. If such values were to be replaced by actual payments the economic behaviour of the units involved would change, perhaps considerably*". It seems that 'non-market' / 'not market' is not meant in the SNA way to discuss production (P.13) or producers (S.13/S.15). Furthermore, it seems better to discuss externalities under other flows instead of under transactions and separate from illegal transactions as these do constitute transactions. Lastly, the sentence "*externalities could not be interpreted as representing equilibrium*" is hard to understand because there are ways to internalise the externality (e.g. CO2 permits).

In **paragraph 4.88** (2008 SNA paragraph 3.18) the last sentence "*Once the definitions are clear, the way in which assets and liabilities are classified within a balance sheet are touched on as well as the way in which items enter and leave the balance sheet*", seems strange now that the discussion of stocks moved to after the discussion of flow (i.e. "*the way in which items enter and leave the balance sheet*") (from 2008 SNA chapter 3 part B 2025 SNA chapter 3 part C).

In **paragraph 4.89** the sentence "*These goods and services are used for the three economic activities recognized in the SNA, production, consumption and accumulation*" uses economic activities in a non-ISIC way (a problem more widespread in the SNA).

Paragraph 4.92 now reads**: "***Sometimes government may claim legal ownership of an entity item on behalf of the community at large. No entity item that does not have a legal owner that can claim the associated benefits, either on an individual or collective basis, is recognized in the SNA macroeconomic statistics.*" The change from 'entity' to 'item' (meaning asset as we understand from paragraph 4.101), seems not correct here. This sentence could for example be interpreted that illegal 'items' such as drugs or weapons are not recognised. Also, as the SNA is an economic framework not a legal framework, it should not take the legal status as a basis for recognising anything (including institutional units). There are many institutional units without legal status (e.g. illegal immigrants and illegal businesses) recognised in SNA/macroeconomic statistics. Therefore it is better to delete this whole paragraph.

New **paragraph 4.99** on natural resources advocates a split asset approach: "*Especially in relation to natural resources, a government is typically the legal owner and grants rights or permissions to exploit the resources to another institutional unit. In such cases, the benefits may be shared between the government and the exploiter of the resources, and the economic ownership of the resources is split between the two entities involved, in line with the shares each entity appropriates*." Here '*the shares each entity appropriates*' is not clear as appropriation is also used in SNA in a very different way (in the nationalisation sense, see 2008 SNA paragraph 22.142), while shares is not meant as AF.5. We believe it is to be understood as the relative share using the NPV of resource rent. It should be explained why this splitting of assets between more than one economic owner, which is normally not done, is advocated here instead of other more conventional, solutions (such as the recognition of an additional asset in the form of a contracts, leases and licences).

In **paragraph 4.110**, the sentence "*Assets that are not financial assets are non-financial assets*" seems redundant. Furthermore, shouldn't this paragraph come after the header "the asset boundary"?

In **paragraph 4.114**, '(legal)' is added before 'contract', while 'constructive' is removed, thereby making legalistic considerations more important than the economic substance, which is degrading the economic framework. That is dangerous as a lot of transactions (including with delayed payments) occur without a legal contract, not only illegal transactions. When such liabilities are not recognised, are the transactions that is being financed (e.g. the purchase of illegal drugs, borrowing between households, drinking on the tab etc) also not recognised in order not to create discrepancies?

In sub-section 6 four types of assets are mentioned while only 3 are discussed (natural capital is missing).

In **paragraph 4.143** (2008 SNA paragraph 3.120): "*When a price is agreed by both parties in advance of a transaction taking place, this agreed, or contractual, price is the market price for that transaction regardless of the prices that prevail when the transaction takes place"* it might be worthwhile to discuss the case of an option contract as this results in the opposite recording of what is written here. In an option contract the price is fixed in advance of the transfer of the underlining asset but the difference between the fixed price and the market price is incorporated in the financial instrument (AF.71) not the underlying asset. Besides, taking this price at the moment of contract seems a bit strange when the transaction recorded at the moment of acquisition (change of economic ownership). If prices deviate between signing of contract and acquisition it should constitute an other economic flow (K.7) for the economic owner that will never materialise as the price is already set. Or is proposed not to revalue after the contract is signed ? This problem seems recognised later in **paragraph 4.235** without providing a solution. Furthermore, it could be noted that a price in a contract that is signed by non-market producer(s) might incorporate a gift element. Such gift element should not be recorded as a lower price of the purchased asset (exchange transaction), but rather as transfer. Above points seem also relevant for **paragraph 4.154**.

In **paragraph 4.160** it is written "*(…) Here, one can also add that the actually observed exchange values, which may be motivated by global tax avoidance or other reasons, also represent an economic reality of its own, albeit not one which is based on market prices and other commercial considerations.*" It is not clear what is being proposed here. It is not clear what is recommended area with very large impact on some countries' economic accounts.

In **paragraph 4.166** it is written: "(…) *However, most non-financial assets used in production are not generic, but specifically designed and constructed for a certain production activity. Moreover, the markets for these second-hand assets may be extremely thin. As a consequence, the observable market prices for these second-hand assets may be close to their scrap value, thus not providing a good representation of the capital services that can be derived from them in the remainder of the service life, the latter representing the value of the asset in an enterprise as a going concern. One could also argue that the second-hand assets in these types of markets are not the same as the assets used in production, thus not being a good representation of the assets being valued*". Isn't it rather the case that the price of such second-hand equipment is low because of all kind of associated (transfer) costs (e.g. dismantling in factory A, transportation, installation in factory B) and risks that are normally covered via insurance in the price of buying new assets? Furthermore, also in very thick second-hand markets, e.g. for cars, it is a normal that prices fall steeply the moment you drive your new car out of the garage.

In **paragraph 4.167** it is written *Similar valuation issues may exist in the case of, for example, natural resources, the stocks of which are generally not traded in the market, so any values derived from occasionally traded stocks cannot be used for the valuation of similar assets because of the heterogeneity of the resources in question. In these cases, the value on the balance sheet can be approximated by the net present value of future benefits derived from these resources, using the residual value method, i.e., the output generated with the exploitation of the resources minus all costs associated with the exploitation. Exploitation rights are often provided by* *government for a series of rent payments. The (present value of) actual rent payments may not account for the full value of resource rents that can be derived from these assets, and the asset in question may clearly generate a future stream of resource rents, going well beyond the payments of rent to the (legal) owner. The unit having the rights to exploit the resources thus appropriates part of the resource rents, reflecting the future capital services derived from these assets by the unit having the exploitation rights. In these cases, the value of the resources in question is split between the legal owner and the unit exploiting the resources. (See also paragraphs 14.xxx (SNA).)* The treatment of a split asset approach in this paragraph shows a semantic difficulty. Why is government considered only the 'legal' owner and not 'economic owner' for its share? In all cases where a market entity makes a purchase of an asset, the valuation of the asset by the purchaser (i.e. at micro economic level) is higher than the purchase price, otherwise it would not engage in the transaction (and no one made profits). This is not unique to natural resources but rather a characteristic of all purchases (see previous comments on consumer and producer surpluses). Furthermore, the exploiter doesn't appropriate anything (which seems a euphemism for stealing recorded as OVC, K.4).

In **paragraph 4.168**, regarding the "*net present value of future benefits*", it is written that "*It should be noted, however, that the method as such is theoretically sound as can often be verified for a number of financial assets*". What is meant with this sentence? First, prices are not set by the actual future benefits but the expected future benefits (including holding gains) at the moment of purchase, that is an important nuance to make. Second, what financial assets are verified this way? Also, just because a method works for financial assets, where contractual future cash streams are set in a contract, doesn't make it practicable for non-financial assets where there are much more uncertainties.

In **paragraph 4.171** or in a separate paragraph in this section on valuation an elaboration on tradability and negotiability might be helpful as the two concepts are not the same. Negotiability is linked to the contract at creation (e.g. it sets an interest rate etc.), while tradability is related to the moment after creation leaving the initial contract unchanged. E.g. a mortgage loan is negotiated but non-tradeable.

Also in **paragraph 4.171**: "*Moreover, conceptually, the nominal value of a debt instrument can also be calculated by discounting future interest and principal payments at the existing contractual interest rate(s) on the instrument; these interest rates may be fixed rate or variable rate. However, some would argue that such a valuation is somewhat inconsistent with a valuation at fair value of the relevant asset positions, while others would argue that nominal values, reflecting the actual payments of principal to be made in the future, including interest accrued to date, can be considered as a good approximation of the fair value. Nominal value is also considered useful because it shows actual legal liability and the starting point of creditor recovery behaviour.*". It seems that this part, which is not easy to read, discusses not nominal versus market valuation but rather the debtor versus the creditor approach. If that is the case, it should conclude that the debtor approach is used in macro-economic statistics. Furthermore it seems to suggest that with the debtor approach the market value of the financial instrument is lost, which is not the case as these would be shown as revaluation (K.7) of the market value when market interest rates start to deviate from the interest rate at issuance.

In **paragraph 4.174** the word ‘expected’ should be added before ‘future pension benefits’.

In **paragraph 4.181** “*A less obvious mingling of transactions occurs when the provision of an asset and the related money payment or payments do not take place simultaneously. When the time gap becomes unusually long and the amount of trade credit extended is very large, the conclusion may be that implicitly an interest fee has been charged. This recording of interest becomes even more relevant in periods of high inflation and interest. In all these such extreme cases, the actual payment or payments should be adjusted for accrued interest in order to arrive at the correct value of the asset transferred. Such adjustments are generally not recommended for normal trade credit*”. First, the ‘and’ above could better be replaced with ‘and/or’. Second, instead of arguing that interest should be recorded it should be argued that although business accounting might call this a trade credit (semantics), in economic substance such long term credits arrangement constitutes a loan. Interest should accrue on loans regardless of the cash flows.

The sentence “*Goods are considered to change economic ownership when the parties enter the goods in their books and make a corresponding change to their financial assets and liabilities.”* in **paragraph 4.208** is circular at best (“something is recorded when it is recorded”) but at worst it seems a contradiction with what is written just above in **paragraph 4.203**: “*A change in ownership from an economic point of view means that all risks, rewards, and rights and responsibilities of ownership in practice are transferred*”.

In **paragraph 4.222** the new sentence “*In practice, when the delay between the transaction and settlement is short, the time of settlement may be considered as an acceptable proxy, so that accounts receivable/payable would not arise. In cases of longer delays, however, accounts receivable/payable should be identified*” is a pragmatic consideration that is hurting the methodological soundness. It is hurting as it seems to suggest that only long-term payables / receivables are to be recorded, while it is sound methodology to reclassify long-term payables / receivables into loans. Therefore this new sentence can better go.

Paragraph 4.269 on netting states: “*Individual units or sectors (…)*”. 'The 'or sectors' is redundant and confusing. It is redundant, because if you net at institutional unit level and then aggregate to a (sub)sector, automatically also the subsector is netted. It is confusing as consolidation is between units while netting is within a unit. Therefore this doesn't help in explaining the difference between the two concepts. ESA 2010 paragraph 5.28 is much better in this respect.

We welcome **paragraph 4.281** that clearly states that you cannot consolidate P.1 and P.2. This seems in contradiction with **paragraph 30.81** though that seems to wrongly copy GFSM.

Paragraph 4.275 reads: “*In some cases, a clear distinction between assets and liabilities may not be feasible (such as for financial derivatives in the form of forward contracts, which could change between assets and liabilities). In such cases, it may not be possible to apply the **net** recording principle,* *which requires separate presentation of transactions in assets and transactions in liabilities. For such financial instruments, net transactions in assets and liabilities combined may have to be recorded*". It seems that the underlined 'net' needs to be replaced by 'gross'.

It seems that in the sub-section on netting it is missing that national accounts is necessarily a gross recording system as this is the only way to achieve quadruple accounting. For example, netting assets and liabilities is problematic as the counterparties of these transactions/stocks are not the same.

In **section F '**Symmetry of reporting' it seems missing in this section on constancy that inconsistencies in the data (as a result of the reasons summarised) are not to be balanced (artificially reduced) but rather should be shown. This is very important for at least two reasons:

1. Artificial reductions of discrepancies muddle the data. And since it is a closes system it will probably hurt many accounts in different ways.
2. The discrepancy itself is very useful metadata for users.

Regarding **paragraph 4.292 (and 4.299) of the annex**, we note that rents (D.45) are part of the production costs in the 2025 SNA. What is missing is a discussion on the impact on operating surplus (B.2).

When it comes to own account capital formation (P.12/P.51g) mentioned in **paragraph 4.308** it might be mentioned that depreciation should not feed into new capital formation when using the sum of costs (to avoid an endless loop of P.51cà P.51g).

Regarding **paragraph 4.317 *and* 4.318**, should the possibility of negative resource rent be discussed as it is calculated as residual (i.e. a net figure)?

Regarding this sentence in **paragraphs 4.318**: "*The question of which discount rate is appropriate in which circumstances is also an important question to answer. Because of these issues, the method is often considered as a last resort option, to be applied only for certain classes of assets, such as natural resources*". Thank you for acknowledging this, considering the potential huge impact on key aggregates and balancing items it would be very informative if the question was also actually answered.

1. Thank you for adding "by the extractor" in this sentence of **paragraph 4.319**: "In doing so, the government may not appropriate the full resource rent that can be derived from the relevant resource by the extractor", we propose to additionally add "(market producer)".This would help clarify that the extractor is indeed more efficient in extracting than civil servants are in extracting and that this efficiency difference is rightfully attributed as profit for the extractor in the same way that any contractor (market producer) with government is expected to make a profit from its work.
2. We note this sentence in **paragraphs 4.319** where the option of recording an AN.2 type asset is dismissed because it is "(…) *Moreover, as these rights are often not transferable, so without a price being established in a market, there*

is no observable value of the rights. However, the private corporation as a going concern still derives value from having the rights to extract, in the form of part of the resource rents being appropriated. It is therefore recommended to apply the split-asset approach, according to which the assets in question are recorded in the accounts of the legal owner and the extractor, in proportion to the share of the resource rent appropriated". That seems a rather schizophrenic line of argumentation in a chapter and annex that is created to discuss options for pricing assets that are not observed on the marked. Furthermore, this same problem exists for the split asset approach that is advocated, as otherwise there was no need for the NPV of resource rent method. Lastly, the exploiter doesn't appropriate anything (which is a euphemism for stealing, recorded as OVC, K.4).

This chapter may mention in Sections B and especially C1 (partitioning of transactions and assets) the specific example of Emissions Trading Permits as recommended in the GN.

4.7 – worth defining mutually agreed. Is taxation mutually agreed?

4.15 -- Worth noting that there is valuing in connecting these measures to quantities too.

4.34 -- Seems to me expenditures on things like environmental protection may also be reroutings.

4.70 -- externalities can also be positive and provide a benefit. For example, if my neighbor builds a deer fence, that might keep the deer from eating my yard too.

4.71 – "considerable technical difficulties" This is an overstatement. The challenge is being clear what is being discussed. Often such externalities may actually be reroutings. For example, if there were a single factory in town, a firm might pollute, the air quality decline would lower worker productivity, and the firm would pay that cost. But, if the one firm is damaging worker productivity for many firms it is a rerouting.

4.72 – there can still be a small risk, such that the expected private benefits exceed the expected private costs, but there is still a small risk.

4.72 – The example, exactly, but when these approaches are applied, there is an attempt to internalize costs, and the SNA must not create a narrative that environmental taxes reduce GDP. In such cases an honest effort to measure the rerouted benefits is essential in order determine the net value add.

4.75 -- It is important to address illegal activities like illegal fishing and timber theft. This can create products that flow into "legal markets." Also, how is expenditure on law enforcement treated. That should be mentioned here. Are legal services transfers? These may be minor issues for general macroeconomic accounting, but failure to address them clearly erodes faith in the system. Moreover, these do matter substantially for some countries.

4.86 – revaluations -- I believe the refers to pure price effects. Holding gains may occur because of scarcity changes in the product or substitute product market. This needs to be addressed differently. A possibility for holding gains, in the case of renewable natural resources, is physical growth. This needs to be mentioned somewhere. Though, I suppose it could be treated as negative depreciation.

4.111 – there is a substantial and important error in the phrase “benefits embodied by the asset” - This is only true, under the thought experiment that the society could liquidate the asset without effecting the price of the asset or prices in other markets. This needs to be made clear by editing the sentence, “This value represents the market's view of the total revenue received if the asset could be liquidated at current market prices, without having prices effects on the asset itself or in other markets.” The problem is that for many countries at the aggregate level liquidating any asset would cause price effects in numerous markets.

4.115 -- It may be worth pointing out that these could easily classified as produced or non-produced assets. The challenge for natural assets is that they may be a mix of both. The risk with this system is that natural resources will be omitted all together.

4.116 -- if a production forest is transferred to a water utility, who stops harvesting, but uses the forest to reduced treatment expenses, then the forest is still used in production. This should be made clear.

4.116 – my recollection is electromagnetic spectrum and a few other things were are also in this group.

4.119 – The problem here is that most natural resources are owned, even when governments own on behalf of residents. This is really should be removed. The case when natural resources are not owned is maybe -- maybe high seas fisheries. In that case, there are international agreements. Even deep-sea minerals are owned by governments through the sea bed mining authority and treaty agreements.

4.122 -- This needs further development or should be cut. If the asset could be used in the future, then it should be in. If it is contributing to production in situ, then it should be in.

4.140 -- PLEASE make clear the difference between an exchange value (a rectangular area) and an exchange price, the value at which the marginal unit is exchanged. The price concept is the same as the utility price concept up to the accounting boundary. The difference is how inframarginal units are treated. The use of the term exchange value for price in some places of the SNA a rectangular area bounded by price and quantity in others has causes confusion and endless discussion. This MUST be fixed in the 2025 SNA. Here the term exchange value is used when exchange price is meant.

4.144 -- This is incorrect. The exchange value is the price times quantity. That is different than the market price. This confusion in the 2008 SNA has led to many many problems.

4.144 -- price discrimination is real, and should be included in the SNA. It is simply tracing out the demand curve. Treating price discrimination as error as important implication for measurement of money supply and budget forecasting. Generally, this is naive to how market price formation works. Say a store sells shirts on Monday the shirt sells for $10, and the store sells 80% of its inventory. On Tuesday, the store markets the shirt down to $7 and sells the rest. The three dollars is not an adjustment it reflects the actual demand curve.

That is some units are sold a marginal price of $10 while others at $7. The SNA should reflect this.

4.146 -- Should be clear that methods such as regression or matching are appropriate for imputing prices with multiple attributes. This is exactly what hedonic price functions do.

4.155 – "The suggested rule of thumb is to use the value assigned by the donor as a basis for recording." This is contrary to most economic thinking. It matters if the donor's value is less then or greater than the receivers.

If the receiver's value is used, then the surplus is spent on other goods -- so it acts as real income. This is what Hick's intended.

4.161 -- Concessional loans often have requirements for certain kinds of in-kind quid pro quo. For example, concessional loans linked to forest conservation imply a valuation on leaving the forest standing. This implies additional value to the forest in this case, which should be recorded correctly.

4.165 -- …capital services, including NET depreciation…

4.165 -- the price should be the marginal increment of the net present value of capital services. The PMI method is often bad at this.

4.167 – well done.

4.317 – price can be very important in some cases. This is especially true for natural resources.

Please, please go through and make sure exchange value is used when it is price x quantity and exchange price is used when it is price at which a good or service is exchanged. The two are not the same thing.

Saudi Arabia

The covering of non-money transactions needs more details.

Belgium

In the SNA chapter on transfer pricing, the emphasis is placed on adjusting transfer prices to market values. The basis for calculating these transfer prices in the business world seems to be the 'at arm's length principle', as required by the OECD BEPS manuals. This means that transfer prices between related companies appear to be based on the 'at arm's length principle', which is also the basic rule for determining the transaction value, as stated in the SNA in paragraph 4.142. (para 4.142 Market prices for transactions are defined as amounts of money that willing buyers pay to acquire something from willing sellers; the exchanges are made between independent parties and on the basis of commercial considerations only, sometimes called "at arm's length."). The adjustment of these transfer prices to market values, as stated in the SNA, therefore seems contradictory as the transaction value in the SNA and the transfer prices appear to have the same basis

UK Statistics Authority

of valuation ('at arm's length principle) and therefore these transfer prices already seem to be valued at market value. We would have liked to have had more clarification/guidance on what the SNA aims and/or if it is effectively appropriate to adjust these transfer prices in the light of recent OECD BEPS manuals/legislation (master files, local files, …) and the follow-up of the compliance with the OECD BEPS rules by the authorities in many countries.

Sweden

The asset boundary

Comments: The proposal for revised SNA implies in our view a different interpretation of the definition of investments and assets. The inclusion of renewable energy resources and marketing assets (currently put on the research agenda) is not in line with the principles of national accounts and will if included mean that measuring supply and use of products in volumes no longer is the main objective of the SNA. These assets are defined from the perspective of income received by utilising the possibilities of natural flows and phaenomena or creating consumer loyalty which makes it possible to charge higher prices.

Assets can be stored and used when needed. Stored in this sense also means temporarily not used in production. This is the case for wind turbines that are shut of use if the wind is blowing too hard. The turbines can only utilise the wind energy when they are used. The wind on the other hand cannot be stored and turned on when needed. In this sense the wind and solar radiation are natural phaenomena like rain with the difference that water can be stored.

Furthermore, natural flows like wind, rain and solar radiation are used as inputs in the production process and not as the equipment transforming inputs. The input of solar radiation is transformed in the solar panel to electrical currency that can be used to charge a battery. But as inputs wind and solar radiation cannot be stored in the inventory of raw materials for later use. So, wind and solar radiation does not qualify as assets in any respect understood in national accounting.

To avoid future misinterpretations the definition of assets, capital formation and investments need to be better aligned with the principles of national accounting as a social accounting framework. The word 'benefit' is not precise enough and has been interpreted as being any kind of benefit that impacts income received. We should prefer to restrict the meaning to the economic benefits that are consistent with the national accounts' framework.

By 'using the item' we should understand using an asset in production of value added in volume. This is achieved by producing goods and services adding to the resources of the society. Here we put emphasis on the quantity of output and not the value. This difference is crucial and the main reason for differences in the understanding of NA. The recording according to the SNA is not primarily about values and volumes are not equal to real values.

We propose the follow wording of para 4.5:

4.5 ***An asset is a store of value representing a benefit or series of benefits accruing to the economic owner by holding the item over a period of time or using the item in a productive activity. By holding the asset, it functions as a means of carrying forward value from one accounting period to another. By using the asset in production, it contributes to output in volume.*** Assets may be financial in nature or not. For almost all financial assets, there is a corresponding [financial] liability. *A liability is established when one unit (the debtor) is obliged, under specific circumstances, to provide a payment or series of payments to another unit (the creditor).* An elaboration of these definitions and the concepts embodied in them as well as a typology of the different assets and liabilities in the SNA/BPM is given in section C of this chapter.

Human capital

Comments: The title of part 7 is a little bit awkward. It is not about exclusion, it is about what's defined as assets in the SNA. Talking about exclusion is like saying that there is another definition that is better aligned to social accounting, in this case referring to microeconomic theory. But social accounting is not the same as micro theory.

We propose the following wording for para. 4.121:

7. The SNA asset boundary does not regard the following items as assets defined in the social accounting framework

4.121 Human capital as defined in microeconomic theory is not treated in the SNA/BPM as an asset in the integrated framework of national accounts; see paragraphs 1.77 and 1.78. In social accounting humans as individuals, alone or in groups like households and enterprises, are acting as independent economic agents whose activities are pictured. The individual person is indivisible and the capabilities (skill, knowledge and experience) that make up 'human capital' cannot be transferred separately from the individual who has acquired them and therefore these capabilities cannot be treated as a separate transferrable asset, a 'human capital' to be used in production. Picturing a slave society would imply that slaves but not free humans are defined as 'human capital'. Besides that such a treatment in the SNA would be regarded unethical, it would not cover the entire population which is the aim of 'human capital' as defined in economics. However, as explained in chapter 35, it is encouraged to compile extended accounts on education and training, including experimental estimates of the value of human capital.

Sum-of-costs approach

As pointed out in our general comments the sum-of-costs approach used for non-market output should not include a return to capital. The economic objective and behaviour of non-market producers differs from market producers in this respect. The reason why non-profit institutions should be assumed to earn profit is not only a semantic inconsistency. Profit is the main reason why private financial capital is invested in production. Government on the other hand has a different objective in providing the population with services in short supply without any regards of monetary gain.

For non-market producers the output value of non-market output should be valued according to the observed social costs and these also exclude rents and depletion. Rents paid for the use of natural resources is part of the redistribution of income and does not add any value to the society. Depletion is not a social cost since it does not imply that human effort is consumed in the production process.

In case it is analytically interesting to value non-market output by adding an opportunity cost of capital and other expenditures that the output value should cover this should be part of the extended accounts provided by the SNA.

The return on capital for market producers is intended to cover for all the expenditures, except production costs, a market producer might have and that includes among all interest, insurance, rents and dividends.

We propose the following wording for para. 4.292 and 4.293:

4.292 A method, which is frequently applied in the system of national accounts, is the sum-of-costs method. According to this method, it is assumed that market prices, or exchange values, can be approximated by summing up the costs of production, as follows:

- intermediate consumption;
- remuneration of employees;
- other taxes less subsidies on production;
- depreciation; and
- return on capital used in production.

4.293 This method is applied in various circumstances, in particular in the following cases:

- own-account production of fixed assets; and
- although less frequently, other goods produced for own final use, for which it is not feasible to make an estimate on the basis of similar goods traded on the market.

OECD

4.144: “Transactions are valued at the actual price agreed upon by the transactors. Market prices, or exchange values, are thus the basic reference for valuation in the SNA.” This is not in line with Guidance Note AI.1 Valuation principles and methodologies, which “welcomed the distinction between the principles and methodologies for valuing transactions and stocks/positions”. They also preferred the use of the term “exchange value” to “market prices” when valuing transactions. For that reason, we suggest rewording along the lines of “The underlying valuation principle of the SNA consists of exchange values which are the values at which goods, services, labour or assets are in fact exchanged or else could be exchanged for cash. The preferred method for measuring exchange values is by using observed market prices of transactions. In the absence of observable market transactions, …”. We suggest rewording along the lines of “The observed market transactions in most cases will represent exchange values as described in the preceding paragraph.”

4.57: Reference to the increased role of crypto assets without a corresponding liability may be made here.

Section 3: The order of the discussion of the accounting rules in Chapter 3 slightly differs from the order here, i.e., in Chapter 3 time of recording is discussed before valuation. You may use the same order in Chapter 4 (or adjust the order in Chapter 3).

4.245: Units of crypto could also be referenced as ‘other standards of value’.
4.250: Again, it may be useful to also add some text on crypto, maybe not directly putting it on a par with domestic and foreign currency, but at least as an instrument with its own unit of account.

Biodiversity Consultant

4.115 & 4.116

This seems to be the first time produced and non-produced natural capital is discussed.

4.115 says “In view of arriving at an improved accounting for the role of the environment in economic developments, natural capital is separately identified, grouping together both produced and non-produced natural resources.”

This is not consistent with the definition of natural resources in several other places as assets that are “naturally occurring”, sometimes with no qualification that in some cases they are cultivated.

It also seems like quite a thin rationale for lumping cultivated biological resources with natural resources and thus natural capital.

4.116 “Produced non-financial assets come into being via the production process or as imports. The same holds for produced natural capital, such as cultivated biological resources.”

Are there other forms of produced natural capital than cultivated biological resources? If not rather say “i.e. cultivated biological resources”.

Chapter 5: Residence, Institutional Units and Sectors

Israel

5.160 to 5.162 the inclusion in broad money is not so clear. F.ex.
“ if the electronic money issued is included in broad money” should perhaps be explained more - when and how is it included in broad money?

Netherlands

Paragraph 5.251d: When splitting an economy, there may also be reclassifications, just like with mergers.

Spain

Paragraph 5.169 All real estate investment funds should be classified as financial institutions, even if their investments are not purely financial. The primary reason for this classification is that these funds provide small and medium-sized investors with access to diversified investments that would otherwise be inaccessible. Therefore, the main economic function they offer is financial intermediation in channeling savings into these investment vehicles. This is why the legislator often grants them special treatment in terms of taxation and financial supervision of their activities. Therefore, vehicles that facilitate the investment of small savings into real estate should be considered financial institutions.

Additionally, determining whether an investment vehicle is financial or non-financial based on its investment portfolio composition, particularly if it includes foreign real estate, poses practical challenges. These challenges include defining the scope of entities subject to reporting, managing the entry and exit of official registers in jurisdictions where such registration is mandatory, and addressing the associated tax implications.

Eurostat

Paras 5.159 and 5.161: for sake of clarity, it would be useful to specify that only short-term liabilities of deposit-taking are part of broad money: “The short-term liabilities of deposit-taking corporations …”

Para 5.146 : Maybe insurance is missing in the list of financial services: “… the production of financial services is the result of financial intermediation, financial risk management, liquidity transformation, or auxiliary financial activities and insurance.”

5.5 6th line: Should it be “a household” and not “the household”?

Box for BPM7: It would be better to avoid references to handbooks that do not undergo the same type of consultation procedure as the SNA.

Box for BPM7: “(As discussed in paragraphs 10.124–10.125, institutional units that hold assets on behalf of their owners are providers of financial services to their owners.)” This statement without further qualification seems at odds with definition of institutional unit, e.g. ESA 2010 2.22 about substantive control over assets.

5.20 and 5.21: The recording of (collective) consumption expenditure should be avoided for the central bank (see also **paragraphs 1.27c and 3.105)**. This could have been achieved through imputation of a tax and recording of collective consumption in the general government sector. In any case, the recording of consumption expenditure should be clearly limited to core central bank functions, which is not the case with changes proposed to 5.20-5.23, such that the distinction between S.13 and S.121 is blurred. In this context, a much more severe issue arises in figure 5.1 “does the unit relate to the central bank?”. This could be taken to imply that any non-market entity in some way related to the central bank could be classified in the financial corporation sector. That should be avoided in order to maintain some sense of international comparability.

5.26 contains highly appreciated clarification that technological innovation in providing the same product does not change the industry and product classification nor the sector classification. However, use of specific terms such as “Fintech”, for which it is hard to find any meaningful definition should be avoided.

Figure 5.1: Can the classification scheme arrive at a public corporation that is non-resident? The problem arises from changing the order of the schema. I.e. 2008 SNA figure 4.1 does not suffer from the same problem. Furthermore this decision tree sometimes has only one ‘branch’, i.e. there is no direction to be chosen (e.g. “does the unit meet the definition of an SPE’?

It seems not necessary to add “central bank” in paragraph 5.31, 5.33, etc. This is fully sufficient in 5.30. However, the definition of central bank activity is needed so as to prevent lack of harmonisation of what is included in S.121 and S.13. In this sense, the last sentence in 5.29 needs to be rephrased much more cautiously.

5.42 and table below: Why should this be included in the SNA? The table numbering 4.2 seems wrong. What is meant with “The full institutional sector detail is required for external accounts to be fully integrated with monetary, flow of funds, and other financial data.”? How could national accounts and balance of payments data be fully integrated with sectorisation employed in primary statistics not subject to statistical (harmonisation) adjustments?

5.44 seems to clearly advocate the debtor-creditor principle, which is much appreciated, after 2008 SNA was somewhat ambiguous on the issue. Why is this paragraph proposed to be kept out of SNA (but in BPM7)? Please refer also to our comments on chapter 37.

5.47 “through the selling of all or most of their goods and/or services at economically significant prices”: this addition should be limited to “through the selling of their goods and/or services at economically significant prices”.

5.56 “A quasi-corporation is also identified when preliminary expenses **and financial transactions**, including for mining rights, license fees, site preparation, building permits, purchase taxes, local office expenses, and lawyers’ fees, are incurred by a non-resident unit, prior to establishing a legal entity.” Bold should be added, please. “If the project does not subsequently go into operation, the value of the direct investment is eliminated by an entry for other changes in the volume of assets or liabilities." Financial and non-financial assets held by the quasi-corporation should presumably not be eliminated through OCV. What kind of K-flow is meant here?

5.69 should clarify that the licences or permit held by the notional resident unit are also recorded on its balance sheet.

5.70 should leave some space for exceptions: for example joint ventures of several governments are apportioned to the respective governments rather than recording an equity stake according to ESA 20.318.

5.82 ISIC rev 4 reference is outdated or will be outdated.

5.102 "*A government may create a SPE to undertake government borrowing, or incur government outlays, or collect revenue abroad for fiscal policy purposes. Even if there are no actual economic flows recorded between the government and the SPE related to these fiscal activities, flows and stock positions should be imputed in the accounts of both the government and the rest of the world to reflect the fiscal activities of the government undertaken by the SPE. (More detailed guidance is provided in chapter 30/BPM7 chapter 8.)"* We suggest to delete "for fiscal policy purposes" as it is unclear what these could be.

5.108 Thank you for the rephrasing in this paragraph. Regarding the following sentence might "*In addition to the above decision tree in Figure 5.2, if the fund manager is not exposed to the risks and rewards of the accumulated assets of the fund and the investors/beneficiaries are all public sector entities then it may be most appropriate to consider government as the ultimate investor/beneficiary and consolidate the fund within the government sector rather than treat it as a public financial corporation*" the notion of 'may be most appropriate' seems a bit vague, please use "is" instead of "may".

5.139 "Most of these goods and services represent individual consumption but it is possible for NPISHs to provide collective services." How should these be recorded in functional classification COPNI? In paragraph 10.113 provides an example: *a privately funded non-profit institution may undertake medical research and make its results freely available*. As R&D is capitalised (sum of costs, P.12/P.51g) and P.51c is to be excluded to avoid a perpetual loop, it is not clear how this should impact P.3. Or is it proposed to exclude freely available R&D from the asset definition (which we would fully support as there are no enforceable property rights).

5.154 The paragraph relating to Fintech might be reconsidered. 1/ Sector and new products, if any, are two different things that should not be mixed up. 2/ How could a supplementary "of which" subsector position be described when likely many of the technological innovations take place in existing financial intermediaries or rather non-financial corporations providing computing services to financial intermediaries?

5.197 It seems that the notion of NPI changes in the update of SNA. However, why would it be meaningful to show NPIs as an of which item? Few entities in general government behave as a market producer and aim to make a profit. Furthermore, it is not at all clear on the basis of which guidance note or recommendation from the consolidated list of recommendations this change was made.

5.247 Not clear why “IMF, World Bank Group, BIS, and regional development banks” are considered to conduct financial intermediation. Was this addition part of consolidated list of recommendations? As it seems not, we suggest to drop this. They rather seem to conduct (governments’) policy based lending and/or regulatory services.

Para 5.62: “A non-resident with a resource lease is classified as incurring rent and no notional unit is automatically created.” Works at the Expert Group on Natural Capital leads to the need for clarification on the recording of depletion in case of fishing (under quota) in territorial waters by non-resident operator. Our understanding is that a non-resident operator would record total depletion in its production account and record in case of split asset a negative imputed rent to government of the host country up to the depletion borne by the latter (100% in the absence of split-asset), for the latter to record depletion in its capital account. (In line with example 3 of the WS8). In case different approaches should be applied, a clarification would be needed in this paragraph and others of the draft SNA.

OECD

5.2 to 5.9: These paragraphs discuss institutional units, but no reference is made to constructs such as investment funds, trust funds and pension funds that can also qualify as separate entities, if we understand correctly (see for example 5.105)? It may be useful to dedicate some text to that.

5.90: This paragraph has become a bit confusing, as it seems to relate to SPEs but also to entities that are not SPEs (i.e., “whether a unit has all or none of the characteristics described in paragraph 5.86 (a-d)”). It used to work in the 2008 SNA, but as the definition of SPEs has been narrowed down, the three categories can no longer be presented as types of SPEs, creating the current confusion. So, as it concerns a more generic rule, we are wondering whether it wouldn’t just suffice to simply mention that SPEs should be “allocated to sector and industry according to its principal activity” and then just referring to where people may find a list of the most common types of SPEs, without listing the three categories for which the generic rule does not apply? These can then just be presented in the subsequent sections as is currently the case, i.e., there may not be a need to separately introduce them.

5.106-5.107: We had a hard time understanding the text, mainly to understand that the section distinguishes three entities instead of two, i.e., treating the trust fund itself as a potential separate unit with its own autonomy of decision-making. As it is quite difficult to imagine a trust fund (which seems a construct created by other units) to have its own autonomy of decision-making, this may require some further explanation. This may also help to understand the decision tree and the first sentence of 5.107. In 5.106, it may be useful to slightly rephrase the sentence “If the risks and rewards are instead allocated to the

UK Statistics Authority

beneficiary/investor or beneficiaries/investors, one may also assume that the trust or fund does not have any autonomy of decision in the case of a single beneficiary who takes all the risks and rewards of the investment strategy", removing the reference to multiple beneficiaries/investors as these are ruled out by the latter part of the sentence.

5.162: It may be explained that this excludes cryptocurrencies not issued by the central bank.

5.4 (and 5.222): In guidance note WS.2 the term 'private household' is used instead of 'individual household' to distinguish them from 'institutional households'. This is also how these households are referred to in social statistics. In accordance, this term is also used in paragraphs 5.230, 32.92, 34.47 and 34.54. We have noticed that the term 'individual household' is also used throughout the draft SNA, but this then normally refers to allocating amounts to households at the micro level (so covering both private and institutional households). It is also used several times to refer to the fact that STiK is allocated to 'individual households'. In that regard, we suggest to replace 'individual household' with 'private household' here. The same goes for the references in 5.222 and 32.14.

5.107: Not sure if this text is fully correct: "trusts and similar types of funds should only be treated as separate institutional unit in the case that the trustee, or fund manager, is not exposed to the risks and the rewards, and instead the risks and rewards are assumed by multiple beneficiaries/investors". I understand the latter part, but the text seems to exclude the situation where the trustee of fund manager is exposed to the risks and rewards, whereas I think that in that case they would always qualify as a separate institutional unit, correct?

5.165: The definition refers to non-MMFs investing, among others, in non-financial assets. However, 5.169 and 5.170 explain that these funds would qualify as non-financial corporations. In that regard, the definition may need to be adjusted.

5.65: Regarding the treatment of depletion caused by residents abroad, e.g., to fish stocks in other countries' territorial waters (and the inverse problem), it would seem logical to include this as a cost of production, because the depletion of these foreign stocks by resident operators will (eventually) undermine national production. However, this raises several conceptual problems:

- If these assets remain on the balance sheet of the foreign economies, it would make sense to somehow distribute/allocate these depletion costs caused abroad for instance as 'depletion exports' (in the distribution of income account, in the depletion line which is now used to allocate depletion cost to government, here they would go to RoW).
- An alternative would be to split these assets between foreign government (as legal owner) and the resident economy (as legal owner). The asset value of the foreign government could be based on rent (or quota payments) made, and the remainder based on RR of the resident fishers (minus the rents paid). If this option is followed, the question arises whether a notional unit would need to be created or not.

5.146: It is mentioned that “the provision of financial services is typically subject to strict regulation […]”, but this has changed quite a bit over the past two decades in view of the increase in non-bank financial intermediation that led to the great financial crisis and still plays an important role. You may want to consider rephrasing and/or explicitly mentioning non-bank financial intermediation here.

Germany Bundesbank

Paragraph 5.169:

Our first concern is of conceptual nature: Since domestic real estate is treated as non-financial asset, and cross-border real estate as financial asset, the sector of the investing entity would depend on the location of the real estate. In the case of summing up national contributions to a geographic aggregate (e.g. euro area), a part of the cross-border area from a national view turns into domestic, causing the entity to switch sector from financial to non-financial. How should this be implemented technically? Also how would this entity be classified in a business register such as RIAD?

In our perspective, entities that look and behave like investment funds should be classified as such, independent of their type of assets. Their purpose is to match investors with assets by acting as an intermediary incurring liabilities by themselves, which is clearly a financial service. A treatment as non-financial corporation would be rather counter-intuitive, especially to data users not that familiar with the details of the SNA. Adding to that confusion, in SNA draft chapter 29 lists “real estate investment funds” as subsector of investment funds, while the key information that this fund type excludes directly held real estate is placed in a different subchapter.

More practically, the proposed treatment would also raise the question on how to treat the shares issued by these entities. Since investment fund shares can only be issued by “true” investment funds by definition (at least following the current SNA), they would have to be classified as other equity, which isn’t usually captured by ISIN-based securities holding statistics (such as the SHSS in the euro area). Even assuming these real estate funds might still be part of investment fund data collections, the information about who holds their shares will get lost or at least suffer substantial quality loss.

Therefore, we would rather maintain the classification of real estate funds as financial corporations as suggested in the Guidance Note F.1.

OECD

5.4 (and 5.222): In guidance note WS.2 the term ‘private household’ is used instead of ‘individual household’ to distinguish them from ‘institutional households’. This is also how these households are referred to in social statistics. In accordance, this term is also used in paragraphs 5.230, 32.92, 34.47 and 34.54. We have noticed that the term ‘individual household’ is also used throughout the draft SNA, but this then normally refers to allocating amounts to households at the micro level (so covering both private and institutional households). It is also used several times to refer to the fact that STiK is allocated to

UK Statistics Authority

‘individual households’. In that regard, we suggest to replace ‘individual household’ with ‘private household’ here. The same goes for the references in 5.222 and 32.14.

5.107: Not sure if this text is fully correct: “trusts and similar types of funds should only be treated as separate institutional unit in the case that the trustee, or fund manager, is not exposed to the risks and the rewards, and instead the risks and rewards are assumed by multiple beneficiaries/investors”. I understand the latter part, but the text seems to exclude the situation where the trustee of fund manager is exposed to the risks and rewards, whereas I think that in that case they would always qualify as a separate institutional unit, correct?

5.165: The definition refers to non-MMFs investing, among others, in non-financial assets. However, 5.169 and 5.170 explain that these funds would qualify as non-financial corporations. In that regard, the definition may need to be adjusted.

European Central Bank

5.44 establishes a debtor-creditor approach for the classification of the change of ownership of assets. This contradicts the strict transactor approach followed in 2025 SNA (e.g. Chapter 37).

The classification of funds investing in real estate as non-financial corporations (5.169 third indent) poses compilation difficulties as those institutions are typically covered by sources that do not easily distinguish them from other funds (moreover, the predominance of domestic or foreign holdings would have an impact on their classification as non-financial corporations or financial corporations). Furthermore, from a substance point of view those funds provide investment support and act as financial intermediaries. It would be preferable to classified those funds as financial institutions as well.

ISWGNA Editorial Team

5.40 should mention that further guidance is available in chapter 31.

IMF

Links between Chapters 5, 32, and 34 on sectorization.

1. It is suggested that Chapter 32, which refers to groupings, align with Chapters 5 and 34 by aligning the term sectorization.

• For the sectorizacion proposed for the household sector, Chapter 32, unlike Chapter 5, refers to groupings rather sectorizacion (par 32.99 and 32.100).

5.229 The SNA has to be applied flexibly, not rigidly. In order to implement any of the possible methods of subsectoring the households sector suggested below, individual countries should make their own decisions about what they consider to be the most relevant classification. Thus, the fact that a specific, detailed classification according to a criterion of interest is proposed here should not be interpreted as implying that the characteristics proposed are necessarily or always the most important for purposes of economic analysis and policymaking. Having said that, in view of the importance of having internationally comparable data on the distribution of income, consumption, saving and wealth across household groups, below a subsectoring according to income and wealth deciles is put forward as a standard breakdown, while other breakdowns are considered to be supplementary items, which could be more or less relevant depending on country circumstances.

Subsectoring according to levels of income and wealth (equivalized disposable income: deciles, and if possible, top 5% and top 1%)
Subsectoring according to other criteria : source of income and age of members, and other alternative classifications.

Chapter 6: Enterprises, establishments and industries

Eurostat

Paragraph 6.1: we are concerned on the addition of the “central bank” to the paragraph, where production is concerned and quasi-corporations are discussed. It gives the impression as though various quasi-corporation, not necessarily undertaking central bank functions, could be recognised and included in S.12 rather than S.13. We think the second addition should be dropped. Moreover, this paragraph misses a reference to quasi-corporations being recognised when they are selling at economically significant prices.

Paragraph 6.6 (and general): please update for ISIC 5, this is already available since some time. It would be better to do this before the consultation so that any errors can be spotted.

It is not clear why the new **paragraphs 6.35-6.36** on “*More general considerations about the choice of units for describing the production process*” are needed. It concludes that there is no conclusions. Also other parts of SNA are quite clear enough about the limits of each unit. If anything a graph as in the NACE manual could be considered (page 23 of NACE rev 2.0). Research agenda items are typically described on the research agenda in Annex. The paragraphs should be moved there or dropped.

Chapter 7: Production Account

Japan

Paragraphs: 7.228 and 7.229 (Staking of crypto assets)

In the current draft of 2025 SNA, validation services in the case of mining (proof of work) are mainly explained. On the other hand, explanations on other types of validation services, such as staking, are quite limited. They are made only in Chapter 7 (paragraphs: 7.228 and 7.229). Further explanations regarding the staking of crypto assets should be included in the 2025 SNA or supplementary documents, such as a compilation guidance.

Switzerland

Paragraph 7.225 refers to Chapter 24 for more details on "certain cases where the formula for life insurance policies may need to be applied". However, Chapter 24 does not provide any information on the measurement of output for these 'certain cases'.

As noted in the recent note on loyalty programmes (https://unstats.un.org/unsd/nationalaccount/aeg/2024/M26/M26_7_Loyalty_Programmes.pdf), the draft of the 2025 SNA seems to associate loyalty programmes with goods (paragraph 7.162). However, it is common knowledge that loyalty rewards can be earned from spending on services, other transactions such as payment of fines and financial investments such as deposits in ban accounts. The 2025 SNA should note that loyalty rewards can be earned from these transactions as well, while acknowledging that a proper accounting of loyalty rewards in economic statistics will need to be included in the post 2025 SNA research agenda.

Paragraph 7.214-change "technical reserves" to "entitlements" to be consistent with the wording in paragraph 7.215.

Israel

7.22 Is the sentence: “It is important to note that these knowledge-capturing products should be recorded as either goods or services, and that they should not be classified as a distinct category of products.” meaningful? If for any reason one wanted to have a separate category for knowledge-capturing products, why is that not allowed? – the category could later be added to goods or services as preferred (not to mention the larger question of the usefulness of classification in goods and services in general).

Eurostat

[Have the agreed recommendations for the update to the 2008 SNA that are relevant to this chapter been reflected appropriately?] Not completely.

In the recommendations of DZ.7, DZ.8, DZ.9 there were suggestions to clarify the current text concerning respectively (1) AI, (2) Cloud Computing and (3) Digital intermediation platforms, respectively in sections (1) B1 and F-end, (2) F-end, (3) F5. No specific edits were added for this.

WS.6 recommends including in Ch 7 a reference to accounting for depletion in physical and monetary terms. This is not covered in this chapter.

Data could be usefully included in para 7.22 – Knowledge capturing products – as part of the existing list of intellectual property products, as suggested by the recommendation impact note for chapter 7.

Data and databases should also be mentioned in para 7.232 in the list of intellectual property products.

Paragraph 7.27 (also 7.33) appears somewhat biased as the Swedish statistical office has already pointed out. The reason for including in own account production the production of electricity through solar panels, but not including the production of warm water (heating) through solar panels is not apparent. Why should these be treated differently. Moreover, the production of heat through geothermal heat or heat pumps is included in the production boundary, but the production of heat through burning wood harvested from own land is excluded. The logic of this is not immediately apparent. In colder climates, isn't the heating an integrated part of the dwelling that does not need to be separated out?

New **paragraphs 7.40-7.46** on "free" products uses the term subsidy and subsidizing without meaning D.3 (as it talks about market producers that lowers it prices of one part (say printers) to boost sales of other parts (say cartridges) of the company. It is really better to find different wording. All the paragraphs are not clear in describing the implication of the "bundling" on the recording of value added by industry. What about taxes on these digital platforms (usually non-resident)? Also, cannot the opposite occur? The initial product is expensive but benefits from free software updates? **7.42** GDP is underestimated in the period when the investment good is sold. With zero growth, it is overestimated in subsequent periods. **7.43** Is there a "mark-up" on the advertising service? Isn't it rather a (new) platform for advertising services similar in concept to a billboard? **7.45** uses "2008 SNA production boundary", which seems a typo.

7.78 Is "current account" still terminology used in 2025 SNA (sorry we are unsure but table 21.8a seems to suggest otherwise).

7.80 As noted by OECD, a description of the size of both depreciation and depletion should be avoided.

7.103: Exclusion of city parks and historical monuments seems a bit arbitrary. Cycling lanes along a river? Bridle paths? National parks? How should this return to capital be estimated in harmonised way? It seem no further guidance is given. Also, aren't the historical monuments a produced asset, so that using including return to capital and depreciation would result in some double-count? Or is an interest measure meant with this?

7.127: indicates why in concept, there is a double-counting by including 7.27. The quality and running cost of the heating and insulation of a dwelling will of course influence their market rental. What is the solution on this in case the rented dwellings with renewable energy installations are not negligible?

In **paragraphs 7.141** it becomes clear that the definition of production costs needed to calculate the output of non-market producers, is broadened by 1. depletion 2. A return to non-financial assets used in production 3. Rent payable on the use of non-produced non-financial assets. It should be clarified how this impacts the aggregates (in particular B.2). Also, as P.132 is calculated as the residual of P.1 (sum of production costs) minus P.11_P.12_P.12 (see **paragraph 7.143**) it means that P.132 and P.3 is impacted.

7.167 describes a tax and then recommends recording an other current transfer. But if the payment is compulsory and "not in proportion to the services provided" it should be explained why the treatment as a transaction (mutual agreement) and as a non-tax transaction is appropriate. Otherwise, readers are left to wonder about the rationale of deviating from general principles.

7.183 is not very convincing. If a single reference rate is taken, anomalies such as negative FISIM must arise. For example if the reference rate increases by 2 pp, necessarily the existing stock of government loan liabilities will be at lower average rates, and FISIM will turn negative. These anomalies have nothing whatsoever to do with banks wanting to attract new borrowers or depositors and seems a simple arithmetic consequence of following the approach listed under the 1st bullet of paragraph 7.182 (it would be better to use a, b, c instead of bullets). In paragraph 7.182, the corresponding text could better be deleted. It is also not clear what the "transfer element" is that the text refers to and how it should be recorded? Both solutions are not clearly worded. The first solution is likely to resolve negative values for financial corporations but not necessarily their counterparts (and e.g. S.13 D.41 expenditure has some policy uses…). The second solution will more likely resolve negative values at the level of counterpart, but a clearer prescription of how to apply it might be given (to ensure comparability).

In **paragraphs 7.194**:

Probably with 'trade accounts receivable' the financial instrument 'trade credit' is meant ?

More importantly, it should be avoided to indicate that a factoring company is necessarily a financial corporation. There are many factoring companies offering comprehensive services to self-employed clients (billing, book-keeping, tax declarations). The sectorisation of these corporations was not discussed, therefore it should be avoided to be descriptive on it. The issue could be solved by rephrasing to "a bank or other financial corporation or a specialised company offering factoring services.

Also in **paragraph 7.194**: it is explained why no FISIM is to be calculated "*The main reason for this view is that factoring is quite different from the more traditional type of intermediating funds, which commonly refers to the intermediation between depositors and borrowers, thereby explicitly excluding claims like other accounts receivable/payable. This line of reasoning also applies, even though in the case of factoring the accounts receivable are to be reclassified to loans."* It is perhaps better to justify the absence of FISIM by the presence of an explicit charge on the financial service provided (the fee measured as the difference between the nominal value of the initial AF.81 and the cash provided to the corporation seeking the factoring service).

Throughout the paragraph "trade credits" should be used rather than "accounts receivable/payable".

"(i) fees; (ii) interest; and (iii) compensation for possible credit defaults. From a conceptual perspective, the output of the factor is represented by the first element only. In practice, however, details about the three elements may not be separately available. " should be rephrased, perhaps: "(i) fees and (ii) interest. From a practical perspective, the output of the factor is represented by the first element only, although in concept interest is present, it is difficult to measure. " It is rather in concept that interest should be present, and in practice, only a fee is measured. It is also not clear why credit risk is not part of interest.

UK Statistics Authority

In **paragraphs 7.221** multi-employer schemes and 'employer independent' schemes (for example for unemployed and self employed) are grouped together. However, isn't the working of these schemes are rather different (e.g. one is linked to D.12 while the other is not). It is therefore better to use two separate bullets.

In **paragraphs 7.227-7.230** it should be recognised that the recording of crypto leads to impact on net lending/borrowing (B.9). When the police confiscates bitcoin from criminals (not uncommon) it will be treated differently than the confiscation of bank accounts and cash money. This is not satisfactory considering the liquid nature of the asset. Maybe recent events indicate a need to reexamine whether the proposed solution should indeed be used or whether it may not be a more prudent option to consider the crypto assets as financial for the time being. This would be in line with preliminary treatment of ETS before ISWGNA had considered the issue.

7.257 should also describe where the services provided to producers are compulsory and not in relation to the cost (i.e. a tax). Ref. WS.14.

Does **7.285** say that for cultivated forest, that is not harvested at the optimal time, additional capital formation should be recorded? That is rather counter-intuitive. While possibly beneficial from an environmental point of view (but not necessarily in a cultivated landscape), intuitively the economic value of the timber decreases when it is left standing after the optimal time. E.g. timber stems that you cut can be used for furniture, or at least building material, while timber that falls is almost always only suitable for shredding & fuel.
Para 7.165: Individual bank supervision is distinct from macroprudential supervision and may be explicitly mentioned: "…services related to promoting financial stability, including regulation, bank supervision and macroprudential supervision; ..."

Para 7.167: If we understand correctly, this para deals with bank supervision services. It would be useful to make it explicit: "Regarding bank supervision services…". For clarity, we also suggest a reformulation of the last sentence of this paragraph: "~~In the case of these services, some p~~Payments ~~may be~~ made by financial corporations for the purpose of bank supervision~~, but these payments~~ are typically compulsory and not in proportion to the services provided and should therefore be treated as current transfers."

Para 7.183: We suggest adjusting the paragraph as follows (new text in red): "Negative estimates of implicit financial services on loans and deposits, particularly for depositors but also for borrowers, may temporarily occur by construction given their calculation method, in cases of strong movements in the reference rate of such services. However, d~~D~~uring periods of volatile movements in reference rates and when liquidity markets ~~begin to~~ disfunction, considerable care should be taken in determining estimates of implicit financial services on loans and deposits. …"

New section on CAWLM (paras 7.227-7.230): This new section correctly clarifies that crypto "miners" of CAWLM are considered as producers of validation services (rather than the crypto assets themselves), with their output measured as the sum of both the validation fees and implicit fees in the form of new crypto assets coins. This "crypto" validation service therefore adds to GDP, NDP etc. It would be helpful to explain why the creation of crypto assets with a corresponding liability do not add to GDP/NDP, if only by referencing the relevant paragraphs in the Financial account chapter. This is important also in the light of the statement in para 11.173, which places CAWLM on the research agenda. If in the future the treatment of CAWLM was changed from non-produced to financial assets, this would reduce the level of GDP.

Para 7.237: "Intermediate consumption consists of […], excluding fixed assets whose consumption is recorded as depreciation.". In the SNA 2025 "fixed asset" (AN.11) is a sub-category of "Produced non-financial assets (excluding produced natural capital)" (AN.1). However, some natural capital is also subject to depreciation. AN.3 now includes some "produced assets" and "produced inventories" as well as some non-produced assets. One could add in §7.237, after the words "fixed assets", something like "and that part of natural capital".

In general, it would be useful to clarify that some Natural Capital is treated in the accounts in the same way as produced fixed capital, some other NC as produced inventories, some other NC as non-produced. AN.3 is a hybrid aggregate in this respect.

Para 7.254: suggest to add: "Research and development, own production of software, data, databases are treated as capital formation".

Para 7.264: "Depreciation is the decline, during the course of the accounting period, in the current value of the stock of fixed assets, **including (cultivated)** biological resources yielding repeat products, …". Why is cultivated in brackets? In addition, "including" suggests that cultivated biological resources yielding repeat products are part of AN.11, which is not the case. Maybe one could replace "including" with "and".

Para 7.285: A reference to §11.234 may be useful. For harmonisation of terminology one may decide whether the word "gross" should be added in 7.285 (before fixed capital formation) or deleted in 11.234. At the end of §7.285 one could add a something like ", as for typical produced fixed assets (see code AN.11)".

Para 7.45: delete "2008" before SNA production boundary.

Para 7.129: "In addition, intellectual property products such as R&D, software products, **including** data and databases, may be produced on own account". Delete "including", as data and databases are not part of software. See also para 11.98.

Para 7.136 vs 7.141: the former is about SoC for market output. It refers to a "net" return to non-financial assets used in production. Net of what? The latter is about SoC for non-market output. It refers to "return to non-financial assets used in production" (omitting "net"). Is there a reason for the divergence? It should be noted that para 7.102 refers to "net" return for market output, while para 7.103 states "The same holds for the valuation of production for own final use by non-market producers when these are estimated as the sum of costs". Does it imply that the return to capital should be net also for non-market output? But again, net of what?

Para: 7.233: "If it is not sold, its value may be estimated on the basis of its production costs **with a mark-up**. However, the size of **any mark-up** must depend on the discounted value of the future receipts expected from using it in production …". The language is inconsistent with para 7.141. Production costs include a mark-up, so there is no need to mention it explicitly the first time. The second time, “mark-up” may be replaced with “return to non-financial assets”.

Para 7.234: “The owner of the asset may use it directly to produce copies in subsequent periods.” The text is not clear: does it say that the owner of the asset may use it to produce copies? Then delete “directly”. Or does it mean that he may use it himself and/or to produce copies? In that case, add and/or.

Netherlands

Paragraph 7.178: Please include in the last sentence that remuneration of employees is also zero. Also, Please add the word 'financial' before 'services' ('Both types of fees are treated as financial services that are provided directly from the original professional providers to the shareholders').

Colombia

Partially. Paragraph 7.141 presents an important change in the measurement of the value of non-market production provided free to households by including in the costs of production the return on non-financial assets used in production and the rent paid for the use of non-financial assets not produced.

What is the motivation for this change and what does it imply in conceptual, methodological and measurement terms?

In paragraph 7.255, it is not clear why all expenses associated with mining exploration activity are assigned to Gross Fixed Capital Formation (GFCF)

In paragraphs 7.47 to 7.56 it would be useful to refer to Eurostat's Tabular Approach to Exhaustiveness which provides guidance on the measurement of the unobserved economy.

In paragraph 7.136, include practical examples that illustrate how to record transactions related to non-produced non-financial assets, and reference the chapters where the information can be found.

Chapter 7: It is recommended to review the wording of the text, as it seems to follow the rules of Spanish directly in its translation into English, which could generate problems of clarity and fluency in the target language.

Chapter 7: It would be useful to reconsider some examples that seem to be somewhat disconnected from the context to be explained, which could be related to the wording used.

Chapter 7: Although it was initially thought to suggest the inclusion of more elaborate equations, it does not seem to be strictly necessary. The focus of the book is more conceptual than technical, as it is not a manual on TFP calculation or other specific aspects of that nature.

European Central Bank

176 to 178 describe the accounting of implicit (and explicit) charges in the investment fund industry, but they don't explain how to account for implicit financial services in deposits/ loans of funds vis-a-vis banks. Please consider that in that case the attribution of the charges directly from the banks to the shareholders would be very difficult in practice; it would be preferable, in this case only, to book intermediate consumption and output of the bank for the amount of those implicit services (leading as well to zero value added by the funds).

OECD

7.27: Is it necessary to specify “including the production of electricity […] heat pumps” in the definition? It could also be included somewhere in the text, e.g., explicit reference is already made in 7.29 and 7.33. Otherwise, it may be important to also acknowledge that heat pumps are also used for cooling in summer; solar energy is also used for heat; heat pumps use either geothermal energy or surrounding air. In view of the latter, the text could be reworded to as “including the production of electricity, heat or cool air through the use of solar panels, wind turbines or heat pumps”.

7.102: Although I agree with the formula for calculating the value of output produced for own final use, I think the current phrasing may create some confusion as it refers twice to the use of non-financial assets in the last two components, but with a different meaning. When referring to the net return to non-financial assets used in production, it refers to those non-financial assets as owned by the producer (including any non-produced non-financial assets), whereas when it refers to rents payable on the use of non-produced non-financial assets, it is referring to non-produced non-financial assets not owned but rented by the producer. It may be obvious to the more informed readers but may be misinterpreted by less familiar readers. Perhaps it could be clarified by moving up the part related to the rents payable or by adding “own” to the “net return to [own] non-financial assets used in production”? This also applies to 7.136 and 7.141.

7.150: The 2025 SNA is unclear whether cultivated biological resources are fixed assets or natural capital [check para. 11.13]. This is a key issue throughout the current draft which also has ramifications for the definition of natural resources (which now exclude cultivated assets which are not natural). There seem different options to resolve this:

- Natural resources are not fixed assets, but they are treated / recorded as if they are.
- Natural resources are fixed assets (and can be subject to depreciation) but they are only classified under natural capital.

7.176, 7.177 and 1.78: Whereas the section title specifies that this would cover those financial services provided in return for explicit charges, these two paragraphs also discuss services for which an implicit fee may be paid. In that regard, the title may need to be adjusted.

7.227-7.230: These paragraphs describe the activity of validation services for crypto assets without a corresponding liability. However, these kinds of services will also be relevant for crypto assets with a corresponding liability (and essentially for all transactions that take place on the Blockchain). For that reason, it may be useful to also mention these here, possibly changing the title to ‘crypto validation services’ or something similar. The latter may also help linking the text to an output instead of to an asset type.

7.283: Should it also explicitly be explained why depletion is not considered for other types of non-produced non-financial assets (in line with the explanation in 7.265 that depreciation is not calculated for valuables)?

7.285: In the text “The ability for these resources to reproduce and grow naturally means that in certain management and extraction situations, the quantity of resources extracted may be matched by a quantity of resources that are reproduced and, in this situation, there is no overall physical depletion of the environmental asset. Only the amount of extraction that is above the level of growth is recorded as depletion; in the case the amount of extraction is below the level of growth [for instance to allow the resource to regenerate to allow higher future extraction], it is recorded as negative depletion.", it is important to stress that a key condition for recording regeneration should be that there is an expectation of future use. We have tried to word that in-between the brackets.

7.291: Although we believe that all mineral resources are non-renewable, we think it would be better to refer to ‘minerals and non-renewable energy resources’ instead of ‘non-renewable mineral and energy resources’. This applies throughout the whole draft.

7.80: It is stated that “it should also be noted that depreciation and depletion are typically quite large compared with most of the net balancing items”. Whereas this may be true for depreciation, it will not be generally true for depletion. For that reason, we suggest to either delete the full sentence or take out the reference to depletion.

7.128: Reference is made to a rent premium in relation to the question whether or not households renting a dwelling may be allowed to sublease their apartment. However, I am not sure whether that is the issue here. I think that in any case where people rent (or sublet) their dwelling, there may be an issue with double counting in case the full value of the dwelling services have already been taken into account in the owner-occupied housing services. For that reason, I would suggest removing the part relating to the rent premium or to better explain the issue.

7.283: “In monetary terms, it corresponds with the decline in future income, due to extraction, that can be earned from a resource”. This is not fully correct when it is netted with the regeneration. Perhaps it should say “net decline […] due to extraction in access of regeneration”?

7.285: There seems to be a mistake in the sentence “In the case of cultivated biological resources yielding once-only products, such as forest land underlying the growth of trees for timber production, the relevant amounts are recorded as fixed capital formation and depreciation.” This should read as depletion (positive or negative).

7.286-7.287: The first sentence in 7.286 is fine, but we suggest deleting the rest including para. 7.287. The problem is that it suggests that the way to measure depletion is through biophysical models but this is generally not how countries measure this. For instance, in case of timber, they measure net annual increment (i.e., the natural growth) which is based on forest inventories. In the Handbook on Natural Capital, the use of biophysical models is rather seen as an advanced method.

7.292: The text “depending on whether or not the growth of the resources is higher or lower than sustainable yields” is incorrect and should read instead “whether or not the extraction of the resources is higher or lower than (net) natural growth”.

Germany FSO

7.24 states that „A purely natural process without any human involvement or direction is not production in an economic sense.“ The unused increment of wood can be regarded as a borderline case here (ESA 2010 3.54).

7.154: We would prefer valuation of electricity produced by households at the price incorporated producers would receive for electricity (excluding charges for transmission or distribution). Feed-in-prices like it is suggested may be very low, while the price a household would have to pay for electricity may be very high. In that case the value of the electricity for the household would not be reflected.

7.283 Definition of depletion refers to depletion of “non-produced natural resource". Below this definition it should be straight away clarified that out of all non-produced natural resources, depletion only applies to: 1. non-renewable mineral and energy resources and 2. uncultivated biological resources yielding once-only products (which are mainly animal resources under a quota regime like fish in open seas).

In general, also the expression “depletion of biological resources” should be avoided, as it is misleading (some biological resources are depreciated and for some biological resource neither depletion nor depreciation applies). Moreover, it will lead to wrong expectations by users.

7.15 (definition and explanation of goods) is rather short compared to 7.16 - 7.22 (services), here, for example, electricity could be discussed as a borderline case.

7.39 states: „purchase of the durable should be split between gross fixed capital formation by the enterprise and household final consumption expenditure in proportion to its usage for business and personal purposes“. The newly inserted note could be expanded to include the private use of a car as secondary production of the company that owns it (and as consumption).

7.36 It might help understanding if a sentence were added here to clarify that the services mentioned can also be performed by external service providers who are not employees of the household, and that the value of the output then includes intermediate consumption of this external service provider. Nowadays, many of the services mentioned in households are bought on the market rather than actually being performed by people employed in the household.

7.15 (definition and explanation of goods) is rather short compared to 7.16 - 7.22 (services), here, for example, electricity could be discussed as a borderline case.

7.39 states: „purchase of the durable should be split between gross fixed capital formation by the enterprise and household final consumption expenditure in proportion to its usage for business and personal purposes“. The newly inserted note could be expanded to include the private use of a car as secondary production of the company that owns it (and as consumption).

Sweden

Non-market output

Comments: The same comment as for para 4.292 and 4.293 applies for para. 7.103 and 7.141.

We propose the following wording for para. 7.103 and 7.141:

7.103 The non-market output produced by government units, the central bank and NPISHs that is supplied free, or at prices that are not economically significant, to other institutional units or the community as a whole, is valued by total production costs incurred, similar to the method described in the above paragraph. Including consumption of fixed capital, plus taxes (less subsidies) on production other than taxes or subsidies on products. By convention, no net return to capital is included for non-market production. Similarly, no net return to capital is included in the estimates of production. The same holds for the valuation of production for own final use by non-market producers when these are estimated as the sum of costs.

7.141 The value of the non-market output provided without charge to households is estimated as the sum of costs of production, as follows:

- Intermediate consumption;
- CompensationRemuneration of employees;
- Consumption of fixed Consumption of fixed capital;
- Other taxes (less subsidies) on production;

Some general comments on depreciation and depletion

Comment: We do not think a change of wording from consumption of fixed capital to depreciation can be done without changing the meaning of the concept used in SNA. Such a change would probably also be a step taking the SNA from being a social accounting framework to a microeconomic description of the economy of a society.

The use of depreciation as understood in microeconomics should be left to the extended accounts of SNA.

Furthermore, the depletion and degradation of natural resources in general are externalities that do not belong to the standard accounts of the SNA. Accounting for these externalities in the way proposed does not take into account the social cost of these externalities. We agree that there are benefits in additional information on the costs of externalities. But there exist several methods to support such a recording and we prefer a method that is better aligned to the concepts of social accounting.

We propose that the part describing depletion (§§7.283-7.293) is moved to the part in SNA covering extended accounts.

We are of the opinion that growth in the regenerative potential of biological resources is an externality of human economic activity. These kinds of externalities are not paid for, and they are not recorded in the accounts of economic agents. Including these externalities will therefore give the impression that the monetary income is different than what actually is the case. The valuation of externalities should only be included in the extended accounts of the SNA.

<u>Depreciation</u>

Depreciation is a value concept and not primarily related to volumes. The shadow price (value) of capital is in this sense related to the present value of future income and the difference in future income between two dates is accounted as depreciation.

"We define *economic depreciation* to be the decline in asset price (or shadow price) due to aging." (Hultén and Wykoff, The Measurement of Economic Depreciation in *Depreciation, Inflation and the Taxation of Income from Capital*, ed. Charles R. Hultén, p 85)

In economics, depreciation is understood as the difference in real value of an investment between two points in time. Economics use real values since relative prices might change and an increase in relative prices is interpreted as a lower rate of depreciation in real values (utility of benefits) than in nominal values and vice versa in case of a decrease in relative prices of investment goods.

By other words depreciation is the reduction in future real income by using the capital assets. This is also what's captured by the age-price relation referred to in the quotation above. Only when the pattern of depreciation in value corresponds to the pattern of output in volume the ratio of depreciation and volume of output is constant. The difference in relation to consumption of fixed capital (cf. below) is the use of second-hand prices and the overall inflation to derive at real values. Therefore, a constant relation between depreciation and output in volume will only appear by coincidence.

When information on prices on the second-hand market of goods is available these are used to estimate depreciation. The difference between the market prices of a new investment good and a one-year-old good at the same point in time does, in economics, account for the depreciation in nominal terms. By using this kind of information, the conclusion of some research has been, that the depreciation pattern

UK Statistics Authority

is close to geometric, i.e. the same rate in relation to the net stock value. In national accounts the current replacement cost follows the same development as the price for new investment goods. So, when the change in market prices differs from the change in supply prices of new goods depreciation will differ from consumption of fixed capital.

In national accounts relative price changes does not have an impact on the volume of consumption of fixed capital (CoFC). The volume is set by the costs of production and valued according to the sales price of new investment goods. This value is ideally distributed in proportion to the output in volume produced. This implies that the share of CoFC in relation to output is constant for a given investment good. But, since price changes of the output and the investment good, used to produce the output, might differ, the current price relation need not be constant from period to period.

For the sake of aggregation there is a need to make goods and services comparable by using a common accounting unit. Heterogeneous goods are made comparable in different ways in economics and national accounts. In economics quantities of goods are expressed in the purchasing power of their value. In national accounts quantities are expressed as volumes of a representative good.

For these reasons depreciation should not be used in the SNA standard accounts.

We propose the following wording for para. 7.264:

7.264 Consumption of fixed capitalDepreciation is the decline, during the course of the accounting period, in the current value of the stock of fixed assets, including (cultivated) biological resources yielding repeat products,

owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage. It also includes the decline of the regenerative potential of the underlying asset of cultivated biological resources yielding once-only products (e.g., forest land in the case of the growth of trees for the production of timber).The term depreciation is often used in place of consumption of fixed capital but it is avoided in the SNA because in commercial accounting the term depreciation is often used in the context of writing off historic costs whereas in the SNA consumption of fixed capital is dependent on the current value of the asset. Using the concept depreciation also gives the impression that the reduction of the capital stock is a matter of revaluation according to the prices of investment goods in the second-hand market. On the contrary, estimation of consumption of fixed capital employs the change in replacement cost of new investment goods as the change in prices of goods in the stock of fixed capital.

<u>Relative efficiency of fixed assets</u>

Comments: The understanding of the efficiency of fixed assets in para. 7.278-7.280 is not aligned to volume measures of GDP. The efficiency of fixed assets should be related to the output produced in relation to which the fixed assets is used and accounted for as a cost of production. This corresponds to the degree of utilisation of the assets.

In social accounting CoFC is ideally distributed in relation to the volume of output the investment good is used to produce. This means that an investment of 1000 monetary units used to produce 10,000 equal units of output over its entire service life should be distributed in 10,000 equal shares as a cost for each unit of output. If the service life is 10 years and the output is 1000 units each year, then CoFC in each period (year) corresponds to 1/10 of the investment and that corresponds to 100 monetary units in base year prices (volume).

The actual volume produced in each period (year) depend among all on the business cycle. This implies that it is not possible to make a correct distribution of CoFC in advance of the scrapping of the investment good. Without information on the pattern of production a simple assumption is that the investment is used to produce the same amount of output in volume year after year. This boils down to a linear reduction in the volume of the investment good recorded in the capital stock. The current recommendation to use a linear pattern is in this sense a reasonable simplification that can be used when empirical data of the pattern is not available.

If we assume a geometric pattern for CoFC this means we assume that the equipment is used to produce gradually less output in volume as it ages. This might be reasonable when we regard a cohort of investment goods but without empirical support it should not replace the linear pattern as the standard.

We propose the follow wording of para 7.278 through 7.282:

Relative degree of utilisation

7.278 The inputs into production obtained from the use of a given fixed asset tend to diminish over time. The rate at which the utilisation declines may vary from one type of asset to another. The simplest case to consider is one where the utilisation of the asset remains constant until the asset is taken out of service and no more output is produced by the asset. Other simple cases include the case where the volume of output produced by the asset declines linearly or exponentially over its life. Other methods employ a hyperbolic rate of asset utilisation with relatively little decline in the initial years but increasingly steeper decline in the use and output produced as time progresses. However, in practice calculations are not undertaken asset by asset individually but for cohorts of assets of similar ages, characteristics and use. Individual assets within the cohort will retire at different moments but the utilisation-retirement profile for the cohort as a whole is typically convex to the origin.

7.279 The utilisation profiles of fixed assets determine the contribution to the volume of output made by using the assets over their service lives. Once the profiles of the utilisation over the service lives of the fixed asset have been determined, it becomes possible to calculate the consumption of fixed capitalconsumption of fixed assets, period by period.

7.280 In general, it is recommended, as a default option, to use linear method for the estimated consumption of fixed assets according to which a constant fraction of the gross capital stock is consumed; however, other depreciation profiles may be considered more suitable for certain types of assets.

Rates of consumption of fixed capital consumption of fixed assets

UK Statistics Authority

7.281 Consumption of fixed capital Consumption of fixed assets corresponds to the reduction in total volume of output produced by utilising the assets in production. This reduction, and the rate at which it takes place over time, must be clearly distinguished from the decline in the efficiency of the capital assets themselves. Although the efficiency of an asset may remain constant from period to period until itis taken out of service, the value of the asset declines over time. It also follows that the rate of consumption of fixed capital consumption of fixed assets is not constant. It can be shown in this case that the decline in the value of the assets from period to period is higher earlier in the life of the asset than when the asset is approaching the end of its life. The degree of utilisation is high when the asset is new and becomes lower as the asset gets older and need more maintenance. As a consequence the volume of consumption of fixed assets tends to decrease as the asset gets older. Consumption of fixed This translates into a higher rate in relation to the remaining value, even though the efficiency remain constant to the end.

Values of consumption of fixed capital consumption of fixed assets

7.282 Consumption of fixed capital Consumption of fixed assets should not be estimated in isolation from the derivation of a set of capital stock data. Such data are needed for the balance sheet and, trying to identify consumption of fixed capital consumption of fixed assets in isolation from the level of the stock of the asset and its patterns of price and decline in utilisation is likely to be error prone.

<u>The production boundary</u>

Comments: We think it is time to emphasize the main message in para. 1.61 on the production boundary. Output intended for the market including household sales to market producers is the main bulk of output. This is for different reasons complemented with non-market output and by households providing own-account housing services.

Own-account production by households of agricultural, forestry and fishing products and products in the mining industry should be included if they make significant contribution to the economy. But, if the contribution is marginal and for reasons of measurement difficulties they might be excluded. It should be noted that all input materials used in own account production needs to be recorded as intermediate rather than final consumption. Analytical information like productivity will also be distorted by the inclusion of output without recording the input of labour and capital.

Own account production of goods are included in so far as they are produced within the same unit that produces goods for the market. The rationale for this is the statistical problems faced in separating inputs and use of labour and capital to each of the output groups, market and own-use respectively.

Unfortunately, in the latest SNA updates the statistical challenges have not been regarded important and the production boundary has been expanded, in principle, to include all own-account goods produced and consumed within the same households.

In reality own-account output has never been implemented to any notable degree which has retained GDP still useful as a guide for economic policy measures. Households have produced heat water and heating of their houses for ages. So far, we have only included the fuel used for providing heat, in household consumption expenditures.

The proposal for para. 7.27, to explicitly mention, to include electricity produced by solar panels and wind turbines and heat by heat pumps and geothermal heat challenges the understanding of SNA. Should fuel wood and wood pellets also be excluded from consumption and instead included as input in heat production? What about labour?

This kind of recording might be analytically interesting and thus included in the extended accounts but still very problematic from a statistical recording perspective and we therefore propose to exclude the explicit mentioning from the description of production in para. 7.27.

We propose the following wording of para. 7.27:

7.27 ***The production boundary of the SNA includes the following activities:***

- *The production of all goods or services that are supplied to units other than their producers, or intended to be so supplied, including the production of goods or services used up in the process of producing such goods or services;*
- *The production of all goods, produced on own-account within the same unit producing for the market, that are retained by their producers for their own final consumption or gross capital formation;*
- *The own-account production of primary products that makes a significant contribution to the economy.*
- *The own-account production of knowledge-capturing products that are retained by their producers for their own final consumption or gross capital formation but excluding such products produced by households for their own use;*
- *The own-account production of housing services by owner occupiers; and*
- *The production of domestic and personal services by employing paid domestic staff.*

Biodiversity Consultant

7.2 "... Production is an activity, carried out under the responsibility, control and management of an institutional unit, that uses inputs of labour, capital, and goods and services to produce outputs of goods and services. ..."

Would it be useful to include "in some cases ecosystem services" in the list of inputs?

UK Statistics Authority

7.264 "Depreciation … also includes the decline of the regenerative potential of the underlying asset of cultivated biological resources yielding once-only products (*e.g., forest land in the case of the growth of trees for the production of timber)*."

Suggest giving an example for agricultural land as well as forest land, to reinforce that these are treated equivalently. (*e.g. agricultural land in the case of crops*)

7.265 refers to *non-produced* biological resources producing once-only products. Should this be *non-cultivated* biological resources for consistency?

7.285 Suggest in last sentence giving an example relating to agricultural land in addition to the example relating to forest land.

7.286 & 7.287 It may be important to mention that models developed to estimate the rate of growth in biological resources and their sustainable yield should be based on the best available science. I'm sure it's beyond the scope of the SNA itself to discuss how and by whom these models should be developed, but just to note that in general NSOs are probably not well-placed to develop them, and if there are cases where an NSO does develop such a model it should be independently reviewed or validated by scientists with relevant expertise.

Chapter 8: Earned Income Accounts

OECD

8.159: "The imputed investment income on this claim is equal to the shortfall (or excess) in property income payable by the pension fund (i.e., the investment income payable on defined benefit pension entitlements (see paragraph 8.158) minus the investment income receivable on the assets accumulated by the pension fund." The reference to "investment income" in the last part of the sentence should be changed to "property income".

8.171: "Any payments made by the user/extractor of a non-produced natural resource to the owner of the natural resource, which are linked to the use/extraction of that resource, in particular to the quantity and/or value of that resource, should be recorded as rent. These would include, for example, royalties, sur-taxes, and permits. However, payments that are paid by the user/extractor on the same basis as other corporations who are not users/extractors of natural resources (e.g., standard rate corporation taxes, dividends, payments for services) should not be recorded as rent." The first part seems to be at odds with the recommendations in the SEEA CF, which states that any taxes linked to the use/extraction of a resource should be treated as 'specific taxes on products and/or production' (and/or income).

8.115: Reference is made to the fact that "rent is shown together with an explicit deduction for any depletion of natural resources borne by the legal owner", but it is not entirely clear what this means. In this regard, it would be essential that rent and depletion are recorded in separate lines. In that regard, it may be clarified that "in addition to rent payments, the depletion borne by the legal owner of the resource will also be recorded separately".

8.172: The last sentence refers to households giving explicit consent to have their behaviour monitored, but we think many of that would still only go into a satellite account, correct? Only in case of explicit payments, it would go in? In that regard, with a lot of apps you agree with the terms and therewith explicitly giving consent to be monitored (although a lot of people do not explicitly read the terms). This would remain outside the sequence of accounts, right? In that case, it may be useful to include some further explanation on this.

Sweden

Recording of claims of pension funds on pension manager

Comments: The proposed recording of a surplus in pension fund as a negative claim is hard to understand. Our understanding is that every financial asset has a liability counterpart (with few exceptions) and regarding the name we use the same on both sides in the accounts. Pension entitlements are named as assets but also appear as liabilities and we think the same should be the case for claims of pension fund /…/ named as an asset seemingly only for one part of the relation. Negative values should in normal cases not appear in the balance sheet. Negative values for financial transaction are on the other hand a reduction in the asset/liability depending on which side of the accounts it appears (debit/credit).

We propose the following wording of para. 8.159:

Imputed investment income attributable to the surplus/shortfall in defined benefit pension funds

8.159 In the case where a pension sponsor (for example, an employer) is responsible for meeting the liabilities of a defined benefit pension scheme in case of any shortfall, this sponsor is known as a "pension manager". The shortfall should be recorded as a claim (in the debit side of the accounts) of the pension fund on the pension manager (credit), in case of a surplus on the credit side of the pension manager. The imputed investment income on this claim is equal to the shortfall (or excess) in property income payable by the pension fund (i.e., the investment income payable on defined benefit pension entitlements (see paragraph 8.158) minus the investment income receivable on the assets accumulated by the pension fund. The income flow is recorded as a (negative) payable and a (negative) receivable between the pension manager and the pension fund.

Eurostat

In **paragraphs 8.19b (and c)**there seems an error created in the new text (the underlined part) on operating surplus for S.13: *certain amount of operating surplus resulting from the production of non-market services and own account capital formation (see the annex to chapter 4 for more information on the valuation of the relevant output), as well as operating surplus from units within general government undertaking market production*. The production of non-market services and own account capital formation will not lead to an operating surplus as the non-market production (P.132) is calculated as a residual. However, if there is a market KAU (establishment) in an S.13 IU there would be a B.2 calculated at KAU level. This should be reversed, chapter 4 annex does not imply the possibility to calculate B.2 on non-market output. From which recommendation does this change stem? Also, "units" should be replaced by entities. A government controlled market producer that meets definition of an institutional unit (or quasi-corporation) is a public corporation and not part of S.13.

Paragraphs 8.57 and following: The change for social insurance schemes is noted. However, it is not clear why "employment related" is eliminated from the paragraphs discussing employers' social contributions? Surely, if D.12 is present, the scheme to which it is paid is a single or multi employer scheme rather than being independent of the employment.

8.75 references to specific version of GFSM, which is under update. This should be avoided. Furthermore, the treatment of taxes is not equal in SNA and in GFSM and Revenue Statistics. E.g. with GFSM due to consolidation. The cross-references could usefully remain in the SNA but should rather be put in Annex than form part of the main text.

8.82 and following:

The GN WS.14 seems not completely reflected and the following should be established: Payments for licences that are not part of a regulatory function should always be recorded as taxes, it was not part of the GN and recommendations to change that principle. The paragraph could start with this statement.

In **paragraphs 8.83** there is unclear wording in distinguishing P.131 from taxation. It used to be 'clearly out of all proportion to the costs of providing' now it reads: "*In this case it might be appropriate to record the payment as a payment of service rather than a tax, but only if the service element of the payment is considered sufficiently material. To recap, the default recording for payments under government-imposed mandatory regulatory schemes should be as taxes, unless a significant service element can be identified leading to recording as a payment of service.*". What is 'sufficiently material? What is significant (not meant in a statistical way). There should only be exceptions whenever the service element is at least equal in value (not in cost) to the payment made.

8.84 Consolidated list of recommendations references discussions in 2012 and 2013, with no documents sent for global consultation and with question in the recommendation: "Further discussions at the Eurostat FAWG?"? Answer is yes, as indicated in our comments on the recommendations.

We wrote: "We do not agree with the conclusions that stability contributions can be a payment for services for an insurance-like event. Rather, the events for which deposit protection schemes are set up and collect contribution are of the uninsurable type. Procedurally, this guidance was not put for global consultation and not even published in SNA news & notes. By default, in line with GN WS.14, the payments should be recorded as taxes in case they are not refundable (and otherwise as a liability rather than revenue). Annex 1 on X.11 actually queries whether the issue was further discussed in Eurostat's FAWG and furthermore does not present a firm conclusion. Actually, the issue was indeed further discussed in Eurostat's EDPS WG (the successor of the FAWG) and it was concluded that a/ the payments cannot be seen as insurance (anyway even in this case, the recording should supposedly be rather different to the one proposed by the paragraph 117), b/ the payments are taxes if non-refundable. More details can be found in Eurostat's Manual on Government Deficit and Debt, chapter 1.5, particularly paragraph 27. The current recommendation present procedural issues and has undesirable effect on government net lending, the delineation of general government and is in contradiction with paragraph 150."

UK Statistics Authority

We do not agree with the inclusion in the 2025 SNA, one of the treatments recommended in 8.84 (insurance) was considered unsuitable by the relevant European expert group. For refundable contributions, in contrast, it was considered inappropriate to record government revenue.

Paragraph 8.89 (and **9.60**) on tax amnesties "*However, in accordance with the accrual principle, if a tax amnesty establishes tax obligations for previously undisclosed transactions, events or assets, then the tax revenue should be recorded when the tax obligation is established and not to a period prior to the tax amnesty.*" To be an obligation is not enough. It should be collectable. As mentioned before Eurostat MGDD takes a different view on the appropriate time of recording of revenue from tax amnesties.

Paragraph 8.112: on other subsidies on production, as the COVID-19 furlough schemes illustrate D.39 this was essentially a subsidy for not producing. Also outside COVID-19 context such subsidies exist (and might grow in importance), for example subsidies for farmers to leave part of their land idle. This could be added as clarification.

Paragraph 8.112: on other subsidies on production, as the COVID-19 furlough schemes illustrate D.39 this was essentially a subsidy for not producing. Also outside COVID-19 context such subsidies exist (and might grow in importance), for example subsidies for farmers to leave part of their land idle. This could be added as clarification.

The ISWGNA outcomes in relation to the recording of furlough schemes https://www.imf.org/en/Publications/SPROLLs/covid19-special-notes#stats (en-special-series-on-covid-19-government-support-to-businesses-and-households.pdf) were according to the list of recommendations intended to be reflected in the SNA. However, only one of the options considered appropriate is seems reflected in the draft SNA – D.39 9at least when using a text search of "COVID", while current transfers seem not reflected. The consolidated list of recommendations reads: "Recommendations for recording government support as either other subsidies on production (objective is maintenance of business), current transfers (objective is income support of households)." Please reflect the guidance with all the options in the draft. It would be inappropriate if only one option were presented, given that not one option could be settled on in discussion with experts. At least in Europe, there were diverse views, but also diverse set-ups of the schemes, making it possibly warranted to treat them either as supporting primarily businesses or supporting primarily households in different ways in different countries.

Moreover, this guidance is better placed in chapter 30. Like this, it could lead to confusion as compilers could only stumble on one of the options and possible use an inappropriate one for their case.

We do not see any text related to the recommendation to record **emission permits** as a financial asset with taxes on production recorded at surrender, at issuance prices, which according to the Recommendation impact file should be included in section C3.

Paras 8.2 and 8.8: "renting non-produced non-financial assets, **including** natural resources…". Given that in the new asset classification natural resources are separated from other non-produced assets, this sentence may be misleading. A clearer formulation would be: "renting natural resources or other non-produced non-financial assets".

Para 8.115 could possibly mention the inclusion of observable phenomena given it is a new and quite different generator of rent.

Para 8.172: under new heading “Rent on other non-produced non-financial assets” – does however suggest that rent is paid to households to permit the monitoring of their internet behaviour, thus creating a produced asset in the form of personal data. Given this is a simplification and the point is discussed in more detail in para 22.28, could this be referenced, or the text in 8.172 brought in line?

Coverage of rent

The definition of Rent given in the Glossary and in 8.115 says:

“Rent – Income receivable by the owner of a non-produced non-financial assets (the lessor or landlord) for putting the assets at the disposal of another and in institutional unit (a lessee or tenant) for use in production.”

- Although this wording is consistent with AI.2 and the Consolidated list, is there scope for confusion? Should non-produced natural resources be mentioned explicitly? The reader might assume the definition (coverage) applies only to AN.2 in the new classification (Table 11.4) ie non-produced non-financial assets (excluding natural capital) and not any non-produced items in AN.3 Natural capital.

Conversely, this is dealt with in the textual changes made throughout Chapter 8 from: “Rent is the income receivable by the owner of a natural resource …” to “Rent is the income receivable by the owner of a non-produced natural resource or another non-produced non-financial asset…”

- But these changes have introduced a further risk of confusion by using the word “another”. The new text isn’t clear whether rent applies to all or only a subset of non-produced non-financial resources. The wording in AI.2 and the Glossary seem to suggest more firmly that the income from all non-produced non-financial assets is treated as rent. Could the new text in Chapter 8 be redrafted as: “Rent is the income receivable by the owners of non-produced non-financial assets including non-produced natural resources …”
- For full clarity, it might be helpful to reference the classification system (Table 11.4, Table 1 of the Consolidated list). It could be explicitly stated, for example in Chapter 8 “Income receivable by the owner (the lessor or landlord) of non-produced non-financial assets including non-produced natural resources, ie AN.21 and the non-produced elements of AN.3.”

AN.2 Non-produced non-financial assets (excluding natural capital)

AN.21 Contracts, leases and licenses

AN.211 Marketable operating leases

AN.212 Permissions to use natural resources

AN.213 Permits to undertake specific activities

AN.214 Entitlements to future goods and services on an exclusive basis

~~AN.22 Crypto-assets without a corresponding liability~~ [*Irrelevant?]*

~~AN.23 Goodwill~~ [*Irrelevant?]*

AN.3 Natural capital

AN.31 Natural resources

AN.311 Land

AN.312 Mineral and energy resources

AN.3121 Non-renewable mineral and energy resources

AN.31211 Oil resources

AN.31212 Natural gas resources

AN.31213 Other mineral and energy resources

AN.3122 Renewable energy resources

AN.31221 Wind energy resources

AN.31222 Solar energy resources

AN.31223 Water energy resources

AN.31224 Geothermal energy resources

AN.31224 Other renewable energy resources

AN.313 Biological resources

~~AN.3131 Biological resources yielding repeat products~~ *[Produced]*

~~AN.31311 Animal resources yielding repeat products~~ *[Produced]*

~~AN.31312 Tree, crop and plant resources yielding repeat products~~ [*Produced*]

AN.3132 Biological resources yielding once-only products

AN.31321 Migrating biological resources yielding once-only products

~~AN.31322 Non-migrating biological resources yielding once-only products~~ [*Produced*]

~~AN.31323 Work-in-progress on non-migrating biological resources.~~ [*Produced*]

AN.314 Water resources

AN.315 Radio spectra and other natural resources

AN.3151 Radio spectra

AN.3152 Other

Chapter 8 section 5 sets out the coverage of rent under headings of Rent distinguished from rentals (8.163), Rent (8.164), Rent on land (8.165-168), Rent on mineral and energy resources (8.169-170) and Rent on other non-produced non-financial assets (8.172).

- There is no explicit discussion here of Rent on natural resources and no reference to where this is discussed. Natural resources are referred to at the end of 8.164 but this seems too brief and vague: "… Rent on non-produced natural resources other than land and mineral and energy resources follows the pattern laid out by the first two instances."

- Also, Rent on other non-produced non-financial assets (8.172) is a new paragraph, but only mentions marketing assets and the collection of personal data from households. While rent may be irrelevant in the context of Crypto-assets without corresponding liability, and Goodwill, is it not relevant for some Contracts, leases and licenses?

Thailand

Paragraph 8.143 - In the session of reinvested earnings on foreign direct investment, the material should have a clear different definition between reinvested earnings and retained earnings. The explanation in the beginning of this paragraph should be focused on the definition of reinvested earnings instead of retained earnings.

Investment income disbursements - "Investment income disbursements" in the Property income should be replaced to the updated heading new classification as "Other investment income".

Germany FSO

8.115 says: "*…As the resource may suffer depletion (or regeneration for renewable resources), rent is shown with an explicit deduction for any depletion of natural resources borne by the legal owner*".

Do we understand well that "depletion born by legal owner" (mostly government) shown in the Allocation of earned income account for extractor and legal owner, concerns only 1. non-renewable mineral and energy resources and 2. uncultivated biological resources yielding once-only products (which are animal resources under quota)? Please confirm.

Colombia

Chapter 8. It is suggested that the classification of certain government revenues be reconsidered, assessing whether they should be treated as services rather than taxes, depending on their nature. This could lead to a more accurate and representative categorization of government revenues.

Chapter 8. It is recommended that the guidelines in Annex A of the GFSM 2014 be used to properly define the nature of taxes. This annex provides essential criteria to be taken into account when classifying taxes, which will improve the accuracy and consistency of the classification.

Chapter 8. It is suggested that natural capital be included within gross capital formation, which implies the integration of taxes, subsidies, and production related to environmental sustainability in the production, income generation, and primary income accounts. It is also recommended that the depletion of natural resources be addressed, since this affects the balance of each account.

Argentina

We suggest to assess whether sections **C. Taxes on production and on imports and D. Subsidies** should be considered in chapter 7, under point **C. Basic, producers' and purchasers' prices**, especially in the case of taxes and subsidies on products. Since if the production account is calculated at basic prices they should be considered in that account, as mentioned in paragraph 8.79. For those countries that do not calculate basic prices, reference can be made to the paragraphs dealing with these taxes.

Chapter 9: Transfer Income Accounts

Eurostat

Para 9.10: "[...] Capital transfers are unrequited transfers where either the party making the transfer realizes the funds involved by disposing of an asset **(other than cash or inventories)**, relinquishing a financial claim or the party receiving the transfer is obliged to acquire an asset **(other than cash)** or both conditions are met." Why is cash excluded from capital transfers here but is included in para 11.24? May some transfers of cash be considered as capital transfers? And why transfers of inventories would not be capital transfers?

Para 9.122: "... The way in which the service charges are calculated is explained in paragraphs 7.185 to 7.191." Is this reference correct? That part of chapter 7 is not about non-life insurance premiums service charges, and gives no indication on how to calculate service charges.

Paragraph 9.44 the example was not clear before and is not clear now. Why is it modified? Could it be dropped?

Paragraph 9.45 a new sentence: "*Consumption expenditure by the central bank is considered to be produced for the benefit of the community at large, while consumption expenditure by NPISHs is always treated as the provision of services for the benefit of individual households.*" In other places, also in new sentences, it is written that NPISH can have collective consumption expenditure. This change does not seem to stem from the consolidated list of recommendations, so the existing ambiguity would better be retained.

Paragraph 9.55 The GN WS.14 seems not completely reflected and the following should be established: Payments for licences that are not part of a regulatory function should always be recorded as taxes, it was not part of the GN and recommendations to change that principle. The paragraph could start with this statement.

In paragraphs 9.56 there is unclear wording in distinguishing P.131 from taxation. It used to be 'clearly out of all proportion to the costs of providing' now it reads: "*In this case it might be appropriate to record the payment as a payment of service rather than a tax, but only if the service element of the payment is considered sufficiently material. To recap, the default recording for payments under government-imposed mandatory regulatory schemes should be as taxes, unless a significant service element can be identified leading to recording as a payment of service.*". What is 'sufficiently material? What is significant (not meant in a statistical way). There should only be exceptions whenever the service element is at least equal in value (not in cost) to the payment made.

(please refer also to our comments on tax amnesties in chapter 8.)

Paragraphs on taxes reference to references to specific version of GFSM, which is under update. This should be avoided. Furthermore, the treatment of taxes is not equal in SNA and in GFSM and Revenue Statistics. E.g. with GFSM due to consolidation. The cross-references could usefully remain in the SNA but should rather be put in Annex than form part of the main text.

Paragraph 9.60 (and 8.89) on tax amnesties "*However, in accordance with the accrual principle, if a tax amnesty establishes tax obligations for previously undisclosed transactions, events or assets, then the tax revenue should be recorded when the tax obligation is established and not to a period prior to the tax amnesty."* To be an obligation is not enough. It should be collectable. That is why TAC is the preferred method. As mentioned before Eurostat MGDD takes a different view on the appropriate time of recording of revenue from tax amnesties.

9.66c: TV and radio licences should be included in the list of licences to be recorded as taxes.

9.79/24.100 reads: "*Schemes providing social benefits may also be established for groups of self-employed persons. When organized by government, as part of a broader arrangement, such schemes would typically qualify as social insurance. If government is not directly involved, the default option is to not treat such types of schemes as part of social insurance, unless the schemes are collective arrangements which provide policies, for certain industries or professions, with a strong resemblance to similar arrangements organized by employers or government. These schemes may, or may not, be encouraged by government; in the former case, this would strengthen the case for a classification as social insurance. In addition, to qualify as social insurance, generally separate institutional units should be established, which are subject to regulation or supervision in line with or similar to other social insurance schemes. In the case of pension-related schemes, an additional criterion for the qualification as social insurance is that accumulated contributions are set aside for retirement income*". First, this "*accumulated contributions are set aside for retirement income*" feels like a step backwards from one of the big innovations introduced in the 2008 SNA that the (level of) funding was no longer a criterium for recognising a pension entitlement in a defined benefit scheme (except for government employees where there is flexibility in the recording). One problem with 'funded' is that money is fungible (see also paragraph 24.137). Second, it is not clear what 'organized by government' and 'government involvement' mean. Third, even if there is a separate institutional unit in SNA paragraph 24.91 called 'employer-independent scheme' (similar to a multi-employer scheme) it is not clear what flows to record for self-employed (and unemployed we recon for paragraph 9.67) as normally there is a D.12. Does this imply D.613?

9.141 is hard to understand "*Some fines and penalties may be established in contracts of mergers and acquisitions where the contract may include contingent fines or penalties based on, for example, profitability, or a pending lawsuit, and resulting in a payment between the buyer and seller after the initial transaction. In these cases, the fines and penalties would be interpreted as an adjustment or update of the exchange value of the acquired enterprise, and treated as a direct investment transaction (or a portfolio investment transaction if the buyer has less than 10 percent of the voting power), instead of a current transfer*". The introduction of an ex-post update of the exchange value of the acquired enterprise seems rather novel. Also, market prices include expectations.

9.148: we continue to disagree with including this paragraph, the recording of D.7 did not receive a major at global consultation, in ESS expert groups it received no support. We see no merit in departing from principles on this issue.

UK Statistics Authority

Sweden

Social insurance schemes for self-employed

The income of self-employed is mixed income. Mixed income includes payments made to government and insurance corporations for taking part in social insurance schemes. Payments to compulsory schemes out of mixed income is recorded as social contribution payments but voluntary payments are not. This is distinct from employees who are receiving employer's social contribution as part of negotiated remuneration.

The contributions made by self-employed are recorded as households' actual social contribution. These only cover compulsory payments. The payments by self-employed on a voluntary basis are recorded in the same way as voluntary contributions made by employees out of wages and salaries.

It is not clear how a policy can be taken out by self-employed without being in their names. The group the risks are pooled together with is not of interest when it comes to recording in SNA, it is who is the sponsor of the policy taken out that matters. Therefore, we think the proposed change regarding social insurance schemes except for social security schemes is not correct from a social accounting perspective.

How the scheme is organised and for whom is not an issue. The important thing is the relation between the sponsor/manager and the beneficiary. In cases where it is hard to make the correct distinction the most criterion applies, as always.

We propose the following recording of para. 9.6 and 9.7 and consequently for 9.67 and 9.79:

9.6 Social insurance schemes are schemes in which social contributions are paid by employees, self-employed or others, or by employers on behalf of their employees, in order to secure entitlement to social insurance benefits, in the current or subsequent periods, for the employees, self-employed or other contributors, their dependants or survivors. The social benefits payable by social insurance schemes are of two kinds, pensions and other benefits such as medical, education, housing or unemployment benefits. Pensions are always paid in cash; non-pension benefits may be payable in cash or in kind.

9.7 Two main types of social insurance schemes may be distinguished:

1. The first consists of social security schemes covering the entire community, or large sections of the community including compulsory payments by self-employed, that are imposed, controlled and financed by government units. Pensions payable under these schemes may or may not be related to levels of salary of the beneficiary or history of employment. Non- pension benefits are less frequently linked to salary levels.
2. The second type consists of other employment-related employment-relatedsocial insurance schemes. These schemes derive from an employer-employee relationship in the provision of pension entitlement that is part of the conditions of employment and where responsibility for the provision of benefits does not devolve to general government under social security provisions.

9.67 A social insurance scheme is an insurance scheme where the following two conditions are satisfied:

1. the benefits received are conditional on participation in the scheme and constitute social benefits as this term is used in the SNA; and
2. at least one of the three conditions following is met:

- Participation in the scheme is obligatory either by law or under the terms and conditions of employment of an employee, or group of employees;
- The scheme is a collective one operated for the benefit of a designated group of workers, whether employed or non-employed, participation being restricted to members of that group;
- An employer makes a contribution (actual or imputed) to the scheme on behalf of an employee, whether or not the employee also makes a contribution.

9.79 Schemes providing social benefits may also be established for groups of self-employed persons. When organized by government, as part of a broader arrangement, such schemes would typically qualify as social security.

Netherlands

9.79 - It is important to adhere very strictly to the wording of Guidance Note F.12 Covering Hybrid Insurance and Pension Products, like the draft of BPM7. This is also relevant for paragraph 24.100'.

Bank of Thailand

9.45 - The first paragraph of social transfers in kind explains the coverage of sectors related to social transfers in kind, which comprises of government, NPISHs and the central bank. After that, the central bank disappears in this session because the transactions of the central bank can produce the benefit for the large in the community not within the individual households. This content should provide more explanation for recording the central bank transactions to another account as well.

12.93 **-** "Ownership of equity in legal entities is usually evidenced by shares, stocks, depository receipts, participations, or similar documents. They may also take the form of equity crypto assets, which are similar to standard equity albeit with a novel technology for being created, allocated, transferred and managed." The form of transactions related to equity crypto assets is recorded to the session of equity and investment fund shares. This is a new updated information in this manual and the manual does not provide the definition and practical example of crypto assets in the form of equity.

9.38 **-** Capital transfers should have more practical examples. Is it possible for one type of goods or service can be both capital and current transfers?

Table 9.6: The income transfers other than social transfers in kind account - with details of current transfers - expenditures and Table 9.6 (cont): The income transfers other than social transfers in kind account - with details of current transfers - revenues **-** The indentation should be applied for the hierarchy level of current transfers. This means that the sub-items under current transfers should not have the same level of the heading.

9.149 - 9.151 - Social transfers in kind is quite specific topic and has a few practical examples because government activities mostly focus on the social transfers in cash for injection the subsidies into the domestic economy easily. Could this be possible to give more examples for social transfers in kind in this manual?

Armenia

9.39 - Is it possible to further separate and clarify with clear examples the definition of capital transfers in this SNA? Because the separation of capital and current transfers often leads to great difficulties in practice.

OECD

9.24: It is stated that disposable income of households includes the excess of SNA interest over bank interest on deposits and excess of bank interest over SNA interest on loans, but it may need to be explained that this does not apply to mortgage loans (as the difference will be recorded as intermediate consumption of FISIM in the production of owner-occupied housing services) and for business loans and deposits (for which the FISIM will be recorded as intermediate consumption in the production activities of the household).

9.137: The definition of personal remittances related to remuneration of employees seems broader than in the 2008 SNA, as it now only refers to “transport and travel expenditure” whereas it referred to any “expenditure abroad by the employees”. Is this intended? The sentence also refers to “plus capital transfers received from households”, but it may need to be specified that this would be from households abroad. Moreover, it seems redundant as the first part of the sentence already refers to “personal transfers from abroad” which would also cover any capital transfers from households abroad, correct? We think this may have been the main reason why this part wasn’t included in the 2008 SNA.

ISWGNA

9.43 doesn't finish the thought on what happens if both transactions are completed in the same time period. Was "and," supposed to be deleted here?

9.44 ignores the fact that enterprise A could have transactions in inventories and its explanation of the imputed cash transfer from enterprise A to the NPISH and imputed purchase of the medicine from enterprise B by the NPISH is not clear.

In paragraph 9.43, this sentence seems to be missing some words at the end: "Both transactions do not involve any imply two entries in the financial account and, if both transactions are completed in the same accounting period," Perhaps the words that are shown as deleted were intended to remain in the text.

In paragraph 9.44, the new language is unclear. The first sentence should identify who receives the transfer. The second sentence (which is garbled) should mention that the NPISH uses the transfer for an imputed purchase of the medicine from enterprise B. Also, the first few sentences of this paragraph are not correct in dismissing the possibility of recording the acquisition of the medicine by enterprise A as an increase in inventories.

In paragraph 9.87, "claims of the pension fund to the pension manager" should be "claims of the pension fund on the pension manager"

Chapter 10: Use of Income Account

OECD

10.75: The added sentence "The transfer of the leased asset at the end of the lease period should be recorded as the building up of a financial claim, which is extinguished at the time of the transfer of the leased product" doesn't read well. It seems that the first part is incorrect?

10.108: I am not sure about the sentence "Although the central bank delivers their services to the population collectively, the costs of doing so are shown as final consumption expenditure by the central bank." It seems to refer to a specific contradiction (between delivering services to the population collectively and recording this as final consumption expenditure by the central bank) that in my view does not really exist.

Eurostat

10.55: Consider adding a reference to production and consumption of electricity by households in the list at the end of the paragraph.

10.16 partly on social transfers in kind to non-residents. "Figures involved are likely to be very small" à "very" is changed to "relatively". It is unfortunate that the matter from the 2008 SNA research agenda has not been addressed even while the problem has increased from being "very small" to "relatively small". In Europe, it is arguable, whether these transfers are "relatively small", due to cross-border workers, possibility to seek health treatment in other countries, tourism, refugees when not treated as resident. When provided by government units, such social transfers in kind to non-residents inflate total expenditure and the outlays in the relevant COFOG groups. It would be better to work towards solving the issue, for example having more inclusive concept of S.13 P.3 for the purpose of COFOG and total expenditure, similar to what is done when compiling Coicop. Then only the P.31 related to residents would be assigned to S.14 P.31, while the part related to non-residents would be exports (in the same value as the "fee" needed to be imputed today in order to avoid a positive amount of P.31).

10.72: please refer to comments in chapter 8&9.

10.102: "*However, the COFOG classification is periodically reviewed and the precise mapping of the COFOG classification to collective and individual services may also be updated during these revisions.*" We think this insertion should be dropped. The P.3 split using COFOG is an integrated part of the NA and should not be changed outside a "comprehensive update" of the NA (see Box 21.2).

10.113 provides an example of P.32 of NPISH: *a privately funded non-profit institution may undertake medical research and make its results freely available*. First, as R&D is capitalised (sum of costs, P.12/P.51g) and P.51c is to be excluded to avoid a perpetual loop, it is not clear how this should impact P.3. Or is it proposed to exclude freely available R&D from the asset definition (which we would fully support as there are no enforceable property rights). Second, a better example might be FISIM. This is P.32 of S.13 so might logically be P.32 of S.15. The example of

P.32 for NPISH however contradicts other chapters, where an opposite move is observed (e.g. new paragraph 9.45).

10.126 reads: *Actual final consumption of the central bank is measured by the value of the collective consumption services provided to the community, or large sections of the community, by the central bank*. This is a rather circular statement. It would be better to relate it to sum of cost minus P.11/P12/P.131.

Germany FSO

10.59 It's unclear why such a special case "Non-fungible tokens" is placed so prominently and extensively in the introduction chapter? The share of these kind of expenditures on HFCE is insignificant. There is more important HFCE such as expenditure on durable goods (cars) and for services (insurances) that is not mentioned explicitly in the introduction. The reference in 10.60 "The treatment of expenditure in some specific situations or on certain specific types of goods and services is outlined in the following sections." should be enough.

10.72 Why were the examples deleted for licences and fees as a purchase of a service (HFCE) such as passports? Or are now all mandatory payments from households to government taxes? Should all court fees be current taxes, e.g. court fees for buying houses? Court fees for a divorce? For civil proceedings? Please clarify. If these have changed, please include references (paras) to the new treatments.

ISWGNA

The first sentence of 10.11 should say "... the central bank, which produces and consumes collective services, ..."

Colombia

It is suggested that fungible tokens, such as the GCFH, be recorded and considered in financial accounts. These tokens represent interchangeable assets and their inclusion can provide a more complete view of financial assets and their impact on public accounting.

Argentina

Paragraph 10.4 mentions that 'collective services are the "public goods" of economic theory'; however, final government consumption may include goods or services that do not meet the characteristics of public goods, but respond to other market failures (positive externalities, information asymmetries, etc.) or equity reasons. Therefore, we suggest to remove this mention.

We suggest including in this chapter (or in chapter 30) a table linking government final consumption expenditure to fiscal statistics, specifically to the economic classification of expenditure, so that it is clear which items are included in which account.

Chapter 11: Capital Account

Eurostat

Should section A be renamed "Chapter overview", as in chapter 1? It would be useful to ensure consistency across chapters.

Para 11.69 (d). "…whether or not they are fully completed or mature". "or mature" should be deleted, given that this section excludes natural capital.

Para 11.98: "Other products, such as computer software (including data and databases) …" Delete "including", as data and databases are not part of software. See also para 7.129.

Para 11.233: "The same holds for transfers of natural resources out of economic activity because of changing technology, **or reduced demand** for the resulting output or for legislative reasons. However, **the stranding of these assets is to be recorded as revaluations**." It would be useful if the difference between decline in demand to be recorded as downwards reappraisal (OCV) or as "stranding" (revaluations) could be clarified in the SNA (current 13.27 text is not crystal clear).

Para 11.11: "A significant part of natural resources is non-produced, although biological resources may be the result of human involvement, and have thus come into existence as outputs from production processes." This paragraph may have to be adjusted in case "land improvements" (and "cost of ownership transfers of non-produced natural resources) are moved from the "traditional" fixed assets (AN.11) to the fixed assets included in AN.31 (natural resources) and in case the treatment of forest land is changed.

Para 11.28: After the bullet list, for clarity it would be useful to add: "GFCF, depreciation and changes in inventories under item c are relevant for produced natural resources, while acquisition less disposals of non-produced non-financial assets and depletion are relevant for non-produced natural resources." Also this sentence could be added: "GFCF is relevant for produced natural resources that correspond to the definition of fixed assets (see paragraph 11.13), while changes of inventories are relevant for produced natural resources that correspond to the definition of inventories (see paragraph 11.14).

Para 11.30 links "depreciation" to "cultivated biological resources". It may be useful to generalise the scope from "cultivated biological resources" to "produced natural resources". In addition, it seems to be clear that "cultivated" is a synonymous of "produced" (and non-cultivated=non-produced). It would be useful to clarify this somewhere in general.

Paras 11.31 and 11.232 and Section E: the reference to "the stock" in these paragraphs may be appropriate to those non-produced natural resources that would be classified as/assimilated to "inventories" if they were produced (mineral and non-renewable energy; fish in the open sea), while it may be misleading for those non-produced natural resources that would be classified as/assimilated to fixed assets if they were produced (the underlying object: for example the fishing open sea; or forest land if after the AEG discussion it will be considered as non-produced). For the latter case (underlying object), it may be preferable to refer to the quality of the underlying object, rather than the quantity.

Also the reference to the "price of the natural resource in situ" seems to be more applicable to "pseudo-inventories" than to "pseudo-fixed assets".

Last but not least, it would indeed be very useful if section E included (an exhaustive list of) examples of depletion applied to the different cases of non-produced natural capital.

Para 11.32: it tries to make a distinction between natural assets and other non-financial assets. The text however is not fully clear and may be improved.

Para 11.35: "…If the amount is negative it represents net borrowing. It should be matched by a reduction in the net financial assets of the sector, corresponding to an increase in the net financial assets of the sectors with a net lending position.~~shows the amount of the resourcesrevenues remaining for purposes of lending or that need to be borrowed. Even if funds are not actively lent but are retained in cash, or in a bank deposit, the holder of the counterpart obligations represented by these financial assets has in effect borrowed from the unit holding the cash or bank deposit.~~" The initial drafting is unprecise. For instance, the net lending will may be 100 (or even 0) while total financial assets and liabilities will be 1000 and will represent the whole spectrum of financial assets and liabilities (not only cash and deposits), so relating a balance (100 or 0) to one transaction (cash, deposit, loans) among the 1000 is not relevant. Better associate the net lending from the non-financial account to the net lending from the financial account.

Para 11.39: "… and what activities are treated as adding to the value of non-produced assets." Is unclear. Maybe better "and what activities adding to the value of non-produced assets are treated as acquisition of fixed assets"? The place of this sentence within the chapter (under B, and/or C?, and/or D ?) depends on the conclusions of the AEG discussion on where to classify "land improvements" (and "cost of ownership transfers of non-produced assets"). This will also affect the positioning of paras 11.45, 11.47: positive and negative GFCF may also apply to produced fixed natural resources. The cost of ownership transfer may apply to both non-produced and produced (fixed) natural resources.

Paras 11.52, 11.87-11.89 on land improvements: depending on the results of the AEG discussion, this paragraph may need to be moved under section D.

Paras 11.114 – 11.118: under the new heading Data and databases, could benefit from a clearer upfront definition of Data, particularly since the new para 11.115 makes the point that "Data and databases are conceptually distinct types of intellectual property…" but then doesn't explain how. Ideally, a short extract could be included from the text in paras 22.21 – 22.32, or at least referenced.

Para 11.188: "Moreover, as purchases and sales of land and natural resources are recorded …". This formulation hints that land is not part of natural resources, which is incorrect.

Para 11.219: "Possible benefits derived from the growth of trees not intended for future timber production are not given rise to the recognition of assets." The formulation of this sentence is not clear. Possible reformulation: "Trees not intended for timber production are not recognised as assets in the SNA, regardless of any other economic benefits they may confer."

Para 11.220 assumes that forest land is part of cultivated resources and as such depreciates. This treatment may have to be reviewed depending on the conclusions of the AEG discussion, if forest land (and agricultural land) is finally considered as depletable (hence non-produced). In addition, "Any increase in the volume of this underlying asset […] is be recorded as **gross fixed capital formation**." GFCF may have to be changed to "negative depletion".

Para 11.227: "…the costs of ownership transfer are shown as transactions in gross fixed capital formation in the capital account **separately** from the acquisition and disposal of natural resources, …". It would be useful to clarify where the "separate heading" is located in the classification, whether under the produced non-natural resources (AN.1) or the natural resources (AN.3). At the moment this is not clear.

Para 11.234 may be revised depending on the conclusions of the AEG discussion on the treatment on land.

The distinction between produced and non-produced assets is fundamental in national accounts. With the (correct) creation of a separate asset category for natural capital, including both produced and non-produced assets, it is essential that the classification clearly indicates which natural assets are produced and which ones are non-produced. This should be made clear in all chapters where natural assets are discussed.

Para 11.5 refers to “the owner of goods and services”. The notion of owner of a service is curious. A service is produced and consumed, not owned.

Paras 11.8, 11.191, 11.197, 11.208 and 11.210: “Resource rent” is repeatedly used in these paragraphs. A clarification of terminology regarding resource rent is needed. See detailed comments to chapter 27.

11.59 "Although incurred at the end of the asset’s life, such terminal costs are added to the acquisition value of the assets (see paragraphs 11.228 to 11.230)." Should be 11.229 to 11.231?

11.55 indicates that certain terminal costs are part of the cost of ownership transfer. **11.229** changes the treatment in 2008 SNA, by delinking the actual expenditures on decommissioning from transactions in assets. Yet, the actual expenditure are referred to a " actual investment expenditures". This is unclear and misleading, since presumably P.51g (capitalised) would no longer be recorded for decommissioning.

11.229 also mixes the treatment in the balance sheet of the core accounts with supplementary items in the balance sheet. This should be avoided for clarity. Net worth is (counter-intuitively) affected due to this treatment (as the net worth increases more when acquiring an asset for which decommissioning expenditure will become necessary than when acquiring an asset for which this is not the case). The rationale for this, and a kind of disclaimer for the effects on the balance sheet and balancing items should be clearly described. It should further be clarified how transfers to responsibility of decommissioning to government are treated in the balance sheets.

11.59 indicates that the terminal costs are (still) part of the cost of ownership transfer, treated as P.51g and are added to the acquisition value of the asset. Given the treatment then described in 11.229, it is unclear what could be the counterpart of the transaction described in 11.59?

11.231 Is there really further discussion in chapter 17?

11.247b should be qualified to include only investment projects in which the individual does not ownership rights.

11.247d "over two or more years" should be deleted here rather than it being added in chapter 30. Or the inconsistency should remain in the text in the absence of discussion. See please comments in chapter 30.

OECD

There is an inconsistency in the labelling of natural capital categories between Chapters 11 and 14. Chapter 11 refers to ‘natural capital’ (in Section D) and uses two labels (i.e., a) Land, mineral and energy resources, water resources and other natural resources (above 11.183); and b) Biological resources (above 11.205)). Chapter 14 refers to ‘natural resources’ (Section 3) and uses three titles (a) Land; b) Mineral and energy resources; c) Biological resources, water resources and other natural resources).

11.5 to 11.7 and 11.114: For consistency with changes proposed in these paragraphs, all references to ‘entity’ should be replaced by “item”, which is currently not yet the case.

11.8: We notice that ‘exploiter’ is used here instead of ‘user/extractor’. This may indeed be a better term to apply consistently throughout the SNA, particularly given the fact that ‘extractor’ seems odd in case of renewable energy resources. In any case, we have to make sure that we use the terminology consistently.

11.11: The definition in this paragraph is not really correct from our perspective, as cultivated assets do not “occur naturally” (at least not at those locations) and in some cases (due to genetic modification) do not occur naturally at all. How about defining by enumeration: “Natural capital, or more precisely in the context of the SNA, natural resources consist of assets that naturally occur, such as land, water resources, timber and fish stocks, and mineral and energy resources that have an economic value and over which ownership may be enforced and transferred, and cultivated biological resources that have come into existence as outputs of production processes”.

11.13: The paragraph implies that fixed assets exclude cultivated assets. However, this seems to be at odds with other references in the chapter (e.g., 11.28, 11.29, 11.30, 11.32) that seems to imply that natural resources are also part of fixed assets. This may require some rephrasing.

11.98: The addition implies that data and databases are part of software which is not the case.

11.116: “The cost of preparing data in the appropriate format” is still mentioned as one of the costs feeding into the creation of the database, but we don’t think this still holds with the definition of data. To us, this resembles the costs associated with “processing, cleaning and organising the data” as referred to in 11.117.

11.190: “Any payments made by the user/extractor of a non-produced natural resource to the owner of the natural resource, which are linked to the use/extraction of that resource, in particular to the quantity and/or value of that resource, should be recorded as rent. These would include, for example, royalties, sur-taxes, and permits. However, payments that are paid by the user/extractor on the same basis as other corporations who are not users/extractors of natural resources (e.g., standard rate corporation taxes, dividends, payments for services) should not be recorded as rent.” The first part seems to be at odds with the recommendations in the SEEA CF, which states that any taxes linked to the use/extraction of a resource should be treated as 'specific taxes on products and/or production' (and/or income). (see also comment made under 8.171).

11.221: The text" due to the considerable time […] is appropriately discounted" suggests that one should apply a net income method when measuring work-in-progress, which is not how the majority of countries seem to be valuing standing timber, which is more often based on the stumpage value method (i.e., stumpage price x stocks of standing timber). Perhaps one could reword as "Due to the considerable time it takes before a tree is mature enough for timber production, it is important, however, that the work-in-progress of the trees is based on their current value, which can be approximated by appropriately discounting their expected harvest revenues when mature. Other methods such as the stumpage value method or consumption value method may provide alternative valuation methods."

The only issue is that paragraph 11.234 still needs to be updated in light of AEG consultation on natural capital issues note.

11.19 and 11.171: It is stated that crypto assets without a corresponding liability relate to assets for which "there is no issuer", but we think it is better to state that these concern assets for which "there is no claim on the issuer", as it may still be possible to distinguish an issuer.

11.22: Reference is made to 'environmental assets' but not to 'ecosystem assets' that were referred to in 11.11. It may be useful to put the environmental assets in perspective (e.g., are natural resources and ecosystem assets a subset of environmental assets?). It may also be useful to refer to these in Section D on 'Acquisition less disposals of natural capital'. We also suggest considering a slight re-wording of the first sentence to "The SEEA Central Framework applies a broader concept of environmental assets, which are defined as …"

11.22: Reference is made to assets that do noy meet the asset boundary. In this regard, the new SNA seems to restrict fish resources to fish stocks under quota. This may work for fish in open seas, but it is unclear what this would imply for say subsistence fishing activities (or fishing in large lakes)? A similar issue arises in case of fuel wood (firewood) collection by households, where it remains unclear whether this is to be considered timber production and hence would bring the asset within the SNA boundary.

11.42: It may be good to add a reference to 10.62 that includes more detailed information on how to deal with a car used for dual purposes.

11.69: It may need to be specified that it concerns fixed assets excluding natural capital (as this is the topic of this section). If that is indeed the case, you may consider deleting "or fully mature" under item d, as that would relate to biological resources.

11.115: A direct reference is made to the use of a sum-of-costs method for recording the creation of data and databases, but as in 11.105, it may be useful to add a sentence that this is the case "unless the market value […] can be observed directly".

11.140 to 11.146: The text includes several references to natural resources, although the section is dedicated to fixed assets (excl. natural capital). The text may need to be updated to avoid any confusion.

11.172: It is suggested that the market price of the relevant crypto assets at the date of exchange can be used for valuing barter transactions using crypto assets without a corresponding liability. However, possibly reference can also be made to the market price of the goods or services that are being purchased, i.e., it may be assumed that these will just have a market price, denominated in the domestic currency, and that the amount in crypto is just determined by the exchange rate at that point in time. This may be an easier way to value the transactions.

11.210: The text refers to the fact that "the establishment of license arrangements or quota regimes, including the related appropriation of future resource rents, would be recorded as other changes in volume of assets and liabilities". However, it is not clear what type of assets: contracts, leases, licenses or the natural capital itself? As a general remark, it is not clear when a valuation based on quota or licences is used, how the assets are to be recorded. It would be very helpful if this would be clearly explained somewhere in the text. For the references to actual sales of the 'assets', it may be good to specify that this refers to license arrangements, to avoid any confusion.

11.211: The label above this paragraph reads 'Biological resources yielding repeat products'. However, as the other two categories concern 'Cultivated biological resources yielding once-only products, including work-in-progress' and 'Non-cultivated biological resources', it may be better to still include 'cultivated' in the label of the first category. It also seems that Chapter 14 uses slightly different labels (see para. 14.59 to 14.63), so it may also be good to align with that. As an overall comment, we need to make sure that we properly align all the headings with the eventually agreed asset classification of biological resources.

11.219: "As noted before, for this type of resources no distinction is made between cultivated and non-cultivated resources. For those resources over which (collective) ownership can be enforced, all growth of trees intended to be used for the purpose of producing timber is considered as being under some degree of human management and control". The first sentence states that we make no distinction but doesn't state that this means we see all as cultivated. To avoid any confusion, we suggest to re-word as "As noted before, in case of timber resources over which (collective) ownership can be enforced, all growth of trees intended to be used for the purpose of producing timber is considered as being under some degree of human management and control and therefore treated as cultivated."

11.171: Reference is made to the fact that "many of these crypto assets do not yet act as a medium of exchange; instead they are often looked upon as a store of value", but in view of the emerging use of these cryptos in other transactions (e.g., crypto lending), it may be better to remove this specific sentence.

11.200: We suggest to delete "mineral and" on the first line as this is not needed and to replace "sun" by "solar radiation" or "solar energy" and "wind" by "wind energy" on the second line.

11.201: In the last sentence, 'original owner' should be changed into 'legal owner' for consistency purposes.

11.202: We suggest to add the words "mineral and" on the second line between "non-renewable" and "energy resources" and to replace "coal resources" by "coal and lignite". Finally, we suggest to change "other non-renewable mineral and energy resources" into "other mineral and non-renewable energy resources".

Biodiversity Consultant

11.180 Paragraph on ecosystem assets.

Includes the sentence: “Ecosystem assets are not recognised in the system of national accounts, *mainly because no monetary benefits can be derived from them*.” This is surely not the correct reason? Many ecosystem assets provide ecosystem services that have direct monetary benefits. Provisioning services are noted in the paragraph as an exception, but they are not the only exceptions. Monetary benefits are also derived from regulating services such as flood regulation that prevents damage to property and cultural services such as nature-based tourism.
There is recognition elsewhere that some ecosystem services provide direct monetary benefits, e.g 1.66.

11.11 (c) First sentence states that “natural resources consist of assets that occur naturally”

Timber is given as an example or as an asset that occurs naturally, but a large amount of timber doesn't occur naturally but is cultivated in timber plantations, often of exotic (non-native) species that would not occur naturally in the area. Suggest deleting timber as an example or a naturally occurring asset (here and elsewhere) as it frequently isn’t.

Second sentence says that “A significant part of natural resources is non-produced, although *biological resources may be the result of human involvement*, and have thus come into existence as outputs from production processes.”

“may be the result of” seems a substantial understatement. Cultivated biological resources (most agricultural and timber production globally) must surely make up a large proportion of biological resources. Suggest changing to "*are frequently produced* through human involvement".

A larger question: Does the definition of natural resources need to be changed to “assets that naturally occur as well as cultivated biological resources” to be consistent with how the term is being used in the SNA? This would be an unintuitive definition of natural resources, so I'm not recommending this but just pointing out that it's inconsistent to define natural resources as naturally occurring assets when their scope has been broadened substantially beyond that in this context.

11.21 “As noted before, natural capital includes both produced and non-produced assets.”

This is inconsistent with the of definition of natural resources as consisting of assets that occur naturally (11.11). Also, **the rationale for including produced assets in natural capital is not clearly explained as far as I can see**.

11.22 “Environmental assets refer to a broader concept and are defined as ‘naturally occurring living and non-living components of the Earth, together constituting the biophysical environment, which may provide benefits to humanity’ (SEEA 2012 Central Framework).”

May be useful to mention here that environmental assets include natural resources and ecosystem assets, i.e. are equivalent to natural capital (summarised in Fig 35.1)

Again here there is emphasis in the definition of environmental assets on “natural occurring”, which would exclude cultivated biological resources.

UK Statistics Authority

11.179 Again the statement that “Natural resources are assets that naturally occur”, with no qualification.

Again suggest deleting timber as an example of a naturally occurring asset as its frequently cultivated.
11.87 on land improvements

“Land improvements are the result of actions that lead to major improvements in the quantity, quality or productivity of land, or prevent its deterioration. Activities such as land clearance, land contouring, creation of wells and watering holes that are integral to the land in question are to be treated as resulting in land improvements.”

These activities are almost always destructive to ecosystem assets, especially natural ecosystem assets. Although land is understood to be different from ecosystem assets, they are related (as discussed in Chapter 35). To avoid potential confusion between “land improvement” and ecosystem restoration, suggest changing this term to “land preparation”, which captures the intended meaning of preparing land for production activities.

11.197 Includes: “In the case of biological resources, it may also be difficult to delineate the value of land from the value of plantations yielding repeat products as well as from the net present value of future resource rents related to the exploitation of forests for timber production (excluding work-in-progress).”

Important to change “forest” to “forest land”, for consistency and to avoid confusion with forest ecosystems, which are not the same as forest land.

Is it possible to include an agricultural example as well as a forestry example? (Also note that plantations can include agricultural plantations (such as sugar or banana plantations), but in this sentence seem to be referring to timber plantations.)

11.205 “The growth of animals, birds, fish, etc., living in the wild, or growth of *uncultivated vegetation in forests*…”

Change “uncultivated vegetation in forests” to just “uncultivated vegetation” or “uncultivated vegetation including trees”. There are many forms of uncultivated vegetation in many types of ecosystems that provide uncultivated biological resources.

“Similarly, the *forests* or other vegetation growing in such regions are not counted as economic assets.”

Replace “forests” with “trees”. The term forest should always be qualified as either forest land or forest ecosystem, as these are not the same. It's the trees that are being referred to here, not the land or the ecosystem. Trees also occur on non-forest land and in many ecosystem types other than forests.

11.206 Agree with the treatment of biological resources providing repeat products as cultivated biological resources.

11.207 Not sure if this is the best place to note this, but it's important that non-cultivated biological resources yielding once-only products are not limited to wild fish. They also include other wild-harvested animals and wild-harvested plants (such as teas, medicinal plants), which are important in some contexts (probably more so in developing countries). (Also para 11.222, 14.60)

11.221

In the middle of the paragraph: "Given the fact that the growth of trees is a more or less continuous process, *with a forest typically consisting of trees in different age categories*, an equal distribution of the growth over the life-length of the tress is considered a good approximation."

The phrase "with a forest typically consisting of trees in different age categories" applies to natural or semi-natural forest land, not to timber plantations, which are a major form of timber production. Rather delete this phrase – the sentence stands without it.

11.222 "Non-cultivated biological resources consist of animals, birds, fish and plants that yield both once-only and repeat products…"

This seems to contradict the earlier statement that biological resources that yield repeat products are always treated as cultivated.

"In practice, these resources are restricted to migrating biological resources, such as fish in open seas, which are subject to some form of quota regime".

Suggest that this is too limiting. These resources could include wild-harvested plants, which may or may not be subject to regulation on off-take rates. Could say "In many cases these are migrating biological resources".

Germany FSO

11.41 It should be explained how solar panels, wind power plants, geothermal and heat pumps of household sector are included (under which asset in asset classification), and among other to ensure consistency with para 7.27 on production boundary. User-generated content on digital platforms produced by households fulfilling the criteria of assets (IPPs), as discussed in para 11.121, could be also mentioned in this paragraph to clarify the treatment.

11.312 The definition of depletion uses term "non-produced natural resources" (also commented under Ch7). Non-produced natural resources consist of land, mineral and energy resources, water resources, other natural resources and uncultivated biological resources (= non-produced). From all of these "non-produced natural resources", depletion is only relevant for 1. non-renewable mineral and energy resources and 2. uncultivated biological resources yielding once only products.

In this context and to avoid confusion and false expectations, the use of "non-produced natural resources" in this definition should be reconsidered.

11.21 This paragraph should rather say that from natural capital, the integrated framework covers only natural resources (as in para 11.178). Moreover, in light of preceding paras 11.12-11.14 clearly defining produced and fixed assets excluding natural capital, it should be clarified in this paragraph, which natural resources (from the assets classification) are fixed assets (to be depreciated) and which inventories, i.e., how produced assets are defined under biological resources. This is crucial also in the context of breakdowns in para 11.28.

11.164 Types of assets included in contracts, leases and licences: it should be explained why "permits to use natural resources" were deleted and where they are covered now.

11.209 says: "...*Moreover, if the access rights provide very long term or indefinite access to the assets, the market value of these rights may provide a direct estimate of the total value of the underlying asset*". This sentence above is not clear. Does "indefinite access to the assets" imply a sale of the assets (i.e. a change of economic ownership)?

In addition, how do "underlying assets" come into play? And what are those "underlying assets"?

What is the connection with permits to use natural resources (classified as assets)? Were they reclassified to natural resources from permits to use natural resources? Please explain.

11.219-11.221 Cultivated biological resources yielding once-only products, including work-in-progress:

First, these paragraphs and the following paragraph 11.222 do not correspond to the classification shown in the Background document to the report of the Intersecretariat Working Group on National Accounts (3f, 2024), thus it has not clear whether the classification has changed and for what reasons.

Second, the heading "Cultivated biological resources yielding once-only products, including work-in-progress" seems inconsistent with sentence in para 11.219 "...*the most prominent example being the growth of trees for timber production. As noted before, for this type of resources no distinction is made between cultivated and non-cultivated resources*." If so, it should be rather stated that by convention these are treated as cultivated, if ownership rights are exercised.

Third, work-in-progress on cultivated biological resources yielding once-only products includes:

- livestock raised for products yielded only on slaughter, such as fowl and fish raised commercially – these animal resources yielding once-only products are completely omitted from the text.

- trees and other vegetation yielding once-only products on destruction (here are presumably included timber resources).

Assuming that work-in-progress on cultivated biological resources yielding once-only products is covered, what are then "Cultivated biological resources yielding once-only products"? What is left here?

The underlying assets like e.g. forest land and possibly also agricultural land are to be recorded under land, thus what else is included here? Please clarify.

11.220 It looks like if forest land (underlying asset) was reclassified here from land (AN.311), which we would oppose. But even if this would be the case, the treatment of regeneration and depreciation of these biological resources is not clear.

It is said "...*Any increase in the volume of this underlying asset, which is the result of an increase in the regenerative potential of the forest land, is to be recorded as gross fixed capital formation. Any decline in this regenerative potential should be recorded as depreciation*".

Is there a third asset (i.e. fixed asset) to be depreciated? (land is not supposed to be depreciated in the current system, see e.g. para 17.41-17.45, inventories are also not depreciated). Or how shall we understand this treatment? Please clarify.

11.234 It is not clear how many “combined assets” are considered now in SNA for natural resources, what are their compositions (does not seem to be just 2 assets in some cases …?), and how and where these assets are supposed to be classified according to the asset classification. We would like to recall that the treatment of land has not changed compared to 2008 SNA. It is also not clear how the “combined assets” are supposed to be depreciated (see above our comment to para 11.220).

11.21: Title above should be: “Natural Capital (excluding Ecosystem Assets)”. There should be no confusion between the general asset classification (which may include a placeholder category for ecosystem assets) and what can actually be found in the SNA capital account (i.e. natural resources).

11.22: This paragraph should also give reference to the “missing part” in SNA, namely ecosystem assets.

11.180: A reference to payment for ecosystem services schemes could be made here as an additional exception.
11.22 The role of this paragraph on environmental assets is not clear, rather confusing. One would expect here rather information on ecosystem assets (the other part of natural capital, not covered by integrated framework and thus not included in the production account).

11.179 says: … “*In monetary terms, the asset boundaries of the SEEA 2012 Central Framework and the integrated framework of national accounts are the same…*”.

Among other radio spectra are not covered by the SEEA-CF, see footnote 48 “*The 2008 SNA also includes radio spectra within its scope of natural resources, as the utilization of the radio spectra generates significant income for various economic units. In the SEEA, radio spectra are not considered part of the biophysical environment and are excluded therefore from the scope of environmental assets*”.

11.189 “subsoil resources” – we assume that subsoil resources (or assets) are synonym for non-renewable mineral and energy resources. If so, preferably the term from the asset classification (Non-renewable mineral and energy resources) should be used in the whole SNA text.

11.211-11.212 Heading: Biological resources yielding repeat products - this heading should include “cultivated” i.e. “Cultivated biological resources yielding repeat products” to be consistent with heading “Work-in-progress on cultivated biological resources yielding repeat products”. Otherwise, it is not clear, why the word “cultivated” was deleted.

11.216-11.217 Tree, crop and plant resources yielding repeat products - symmetrically with para 11.215 (for animal resources yielding repeat products), depreciation of these fixed assets should be mentioned.

Sweden

The radio spectrum

Comments: The inclusion of the radio spectrum as a natural asset is a little bit odd. The benefit of statistical descriptions is that they correspond to the real world both in physical and conceptual respect. In SNA as well as SEEA the physical description should first and foremost be accurate. The second step is to give the quantities a common accounting unit. In SNA this is the monetary unit. Looking on the issue of radio spectrum from a physical point of view reveals that payments for the use of radio frequencies should not be recorded as rent. The radio spectrum is not a natural resource in a physical sense. It describes the variation in the wavelength of a natural phaenomena (a force) like magnetism or radiation in general caused by the interaction of natural resources. Electromagnetic radiation (waves) is a flow of energy emitted by charged particles (electric currency). Electromagnetic radiation can also be generated by transmitters created by human ingenuity.

Government has regulated *the activity of generating electromagnetic waves* by allocating the frequencies/wavelength that each telecom operator is allowed to use in its economic activity. Operators using the same wavelength would otherwise face the risk of interfering with each other to the harm of both parties. The permission to use a specified part of the bandwidth is like organising the traffic to avoid accidents.

The issue of the radio spectrum also reveals that the view that what can be used to generate revenue and income must be a kind of asset is not a good indicator of what to include in the SNA asset boundary. When governments sold the right to use specific frequencies it was thought that government had an asset that was partitioned (licenced) to users for a specified time. This was not the case instead government wanted to regulate the use of the limited bandwidth of the microwave spectrum by allocating the utilisation of it to the telecom enterprises for mobile phone communication. The regulation was thought to be best implemented by the market and for this purpose the permission to use the bandwidth was allocated (sold) at auctions. In this sense the government allocated the bandwidth to users with the highest willingness to pay, thus reflecting the most efficient use of the limited capacity of the radio spectrum.

For the reasons mentioned above we are of the opinion that the radio spectrum should not be part of the SNA asset boundary. Payments for the possibility to use the radio spectrum should be regarded as payments for a permission. The payment to the government is a tax payment. If the permission is transferrable at a gain it should be recorded as a contract valued according to the gain above the tax payment.

Furthermore, the recording we propose also makes SNA and SEEA align on this issue.

We propose the following wording for para. 11.21 and 11.204:

Natural capital

11.21 As noted above, in the context of the SNA, natural capital is restricted to natural resources. These resources can be broken down into the following categories: land; mineral and energy resources, both non-renewable and renewable resources; biological resources; water resources; and a residual category other natural resources. As noted before, natural capital includes both produced and non-produced assets.

Other natural resources

11.204 The category other natural resources includes natural resources n.e.c. Given the increasing move to carry out environmental policy by means of market intervention, it may be that other natural resources will come to be recognized as economic assets. If so, this is the category to which they should be allocated.

Fish resources under quota regime

Comments: Natural resources enter the economy by activities of extraction, logging, hunting and fishing. In case the area (space) and the natural resources located in the area, are under legal ownership and control, the resources should be included in the balance sheet of the owner. Control can be evidenced by the possibility to separately from land (or space in general) transfer the entire resource in exchange for money. Otherwise, the resource is an indistinguishable part of the land value, or it is only permitted to be used by the government alone or as part of international agreement.

The role of government is to allocate the use to economic agents according to the national legislation. Natural resources that are permitted by government to harvested on common grounds or the area owned by other units should not appear in the balance sheet of the SNA standard accounts. In this sense legal ownership and economic ownership of natural resources are identical.

Permissions to harvest a natural resource can if transferable be regarded an asset included in the category of contracts, leases and licenses.

A fishing quota is a permission to harvest a specified quantity of the fish stock in a given geographical location. There is no guarantee that the harvest will be successful and furthermore, ownership in a physical sense means ownership rights and control of particular items and fishing quotas and other permissions rarely specify which items to be harvested. Transferring the fishing quota is therefore not the same as transferring part of the fish stock, but only the right to fish a specified quantity out of the stock.

Logging rights are usually for specified trees or area which means that the items are known. Logging rights are normally valid for a longer period (several years) but the trees are still owned by the forest land owner. When logging takes place, the trees are sold under the terms in the logging contract to the logging enterprise. If the logging right is unused within the specified time of permission, it is automatically transferred back to the landowner.

We propose the following wording for para. 11.22:

-

11.22 Environmental assets refer to a broader concept and are defined as “naturally occurring living and non-living components of the Earth, together constituting the biophysical environment, which may provide benefits to humanity” (SEEA 2012 Central Framework). In macroeconomic statistics, environmental assets are only recognised in as far

UK Statistics Authority

they meet the asset boundary, by providing monetary benefits to their owners, either individually or collectively. Assets over which ownership rights have not, or cannot, be enforced, such as open seas or air, are excluded.

Valuation of forest land

Comments: Valuation of forest land can be undertaken by several methods and the NPV is one but if there exist assessments made by independent experts these should be used prior to calculations dependant on assumptions made by the NSI or any other producer of NA. Regarding the regenerative potential please confer our view expressed in relation to paragraphs 7.264 and 11.234.

We propose the following wording for para. 11.220:

11.220 Two types of assets need to be considered and estimated for this type of cultivated biological resources yielding once-only products: the underlying asset, i.e., the forest land, and the work-in-progress representing the growth of trees. Market prices for forest land are usually not available, and need to be approximated.

-

Timber resources

Comments: The valuation of standing timber should follow the principles of valuation of inventories. Inventories are valued according to the exchange value in the current period or current market price of the goods held in inventory. The nominal net growth of work in progress will in the case of standing timber be the increase in value between opening and closing balance.

The information needed for the purpose of estimating the standing timber is the quantity and prices broken down by diameter classes, region and tree species growing in the forest. The information on quantities is normally included in the forest survey. The prices of different diameter classes and tree species might not be available for all combinations. If this is the case the missing values should be modelled. If the price corresponds to the pick-up price at a road the costs of logging and transport to the pick-up place should be subtracted to reflect the value of the timber volume standing in the forest.

An alternative method if the principles of inventory valuation are not possible to apply is discounting of future revenue taken into account all relevant costs.

We propose the following wording for para. 11.221:

11.221 Work-in-progress related to cultivated biological resources yielding once-only products represents the accrual accounting of the growth of trees intended for the future production of timber. A distribution of output over the accounting periods of the growth of the trees in proportion to the costs incurred may not provide satisfactory results when looking at individual generations of trees, as a disproportionate share of the costs may be incurred in the beginning and the end of the period of growth. The growth of work-in-progress is preferably estimated as the difference between closing and opening stocks of standing timber. The stock is estimated by combining prices and quantities of standing timber broken down by age or size classes, tree species and region or whatever is the most appropriate. In case the price information reflects the sales price at a pick-up location the price needs to be adjusted for the costs of logging and transportation in order to reflect the value of standing timber.

Given the fact that the growth of trees is a more or less continuous process, the available price information can be interpolated and extrapolated to represent size or age classes of different tree species not represented in the price data that is collected by surveys.

Due to the considerable time it takes before a tree is mature enough for timber production, and if the price information only reflects the value of mature trees, it is important, however, that the growth of the trees in subsequent periods is appropriately discounted. For the farming of single-use plants and livestock which take more time to mature than the reference period (quarter, year), the guidance for the recording and estimation of work-in-progress is similar to that for other products; see section B2 of this chapter.

Terminal costs

Comments: The costs of restoring a production site after production has terminated are maintenance costs. Maintenance can be undertaken during or after the operation of a plant depending on what's the most cost-efficient regarding production including the risks of human life. Maintenance costs that are compulsory upon the permission of undertaking a particular economic activity, like a nuclear power plant, or agreed between the landowner and the producer are costs that need to be accounted for. But, since there is no payment or maintenance/restoration work undertaken until the production has terminated such future costs have to be recorded as provisions in the same way as social contributions set aside for later payment of pensions. Accounting for costs in a social accounting framework like SNA must be done for the periods the human effort is used or the output of goods of previous human effort is used up in the restoration after production has terminated.

The cost for the decommissioning of nuclear power plants has no impact on the usefulness and value of the plant. The construction of the plant is made by human effort, and this investment represents the social cost of the plant. Social cost shall be charged equally against the output in volume terms to derive net operating surplus. The radioactive contamination has an impact on the distribution of consumption of fixed assets only if it reduces the output in volume. The plant will, otherwise, work as usual and the construction costs of the plant shall therefore, in the same way as for other investment goods, be accounted for as consumption of fixed assets in relation to the output.

Decommissioning regards mainly nuclear fuel and the plant. These costs are due to the waste from production and externalities made to the construction and removal is necessary if the site shall be used for other purposes than nuclear technical activities. In this sense decommissioning restores the site into a state it previously had. The decommissioning work is primarily the handling of nuclear waste and contaminated material to reduce the negative externalities of the production activities undertaken on the site. Removing the externalities are in most cases current costs recorded at the time the activities take place. In case there is land improvement included in the decommissioning costs this part is recorded as capital formation in the accounts of the landowner.

We propose the following wording for para. 11.229 through 11.231:

Terminal costs

11.229 Terminal costs that follow from agreements between the producer and the landowner or from legislation are recorded as costs of production in the periods they arise. In lack of detailed data it is recommended to assume that terminal costs arise in proportion to the volume of output produced.

Since the externalities from production is restored or compensated after production has terminated these costs are not paid in the same period they arise. The recording in the production account is done in the same way as for the provision of pensions recorded as a cost when the liability arises and when not funded in a segregated account (paid to an insurance enterprise) also recorded as a liability in the accounts of the enterprise.

Terminal costs can in principle be current and capital costs. In the case of the decommissioning of a nuclear power plant most of the costs are current. These include the safe transportation and storage of nuclear fuel waste and demolition and safe storage of the structure and equipment. If the land underlying the power plant is improved in relation to the situation before the plant was built these costs are capital and should both be included in the provisions recorded as production costs and recorded as a capital transfer. Costs on land improvement, are recorded as a payable capital transfer for the period the land improvement is made and included in the accounts of the landowner as a receivable capital transfer and correspondingly reducing the provision asset of the landowner.

11.230 In practice it might be difficult to separate capital costs from the total of terminal costs and in such cases the entire terminal costs should be recorded as current costs in the period the termination activity is undertaken. The costs are reducing the corresponding liability. In case the provisions made, accounted as a liability, are short of the actual terminal costs then the difference is recorded as production costs of the enterprise responsible for the termination of the plant at the time decommissioning takes place.

~~11.231~~ should be deleted.

Yale University

The separation of natural capital seems potentially misguided. It is unclear if this is wise or not. Natural capital can be produced or non-produced and the line between can be blurred. On the other, hand removing natural capital from produced and non-produced capital runs the risk of ignoring all together.

11.5 – concerned about the word entitled in connection with economic ownership. Entitle is legal concept not an economic one. The sentence should simple read, "By contrast, the economic owner of items such as goods and services, natural resources, financial assets and liabilities is the institutional unit realizing benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks."

This provides a more positive and less normative stance.

11.8 – This is an important point, but exploit should be changed to use. For example, when a country provides a hotel concession in a national park, the hotel benefits directly from the surrounding national park, though this might be viewed as exploiting the park. It certainly is not harvesting.

11.11c -- …human involvement, such as forest management plans,… I think an example would be helpful.

11.13 – might some of the examples, e.g., IP actually be human capital?

11.15 – some disambiguity is need. Would goal or gems in the ground be natural capital or produced valuables? I would think natural capital, even if proven reserves. Presumable some sort of finishing product is required here, like reshaping gold into bars?

11.16 – how are crypto-assets non-produced? They are very much produced though energy and computation. This crypto assets should produced assets. They are far more like works of fine art. That is the whole NFT thing.

11.17 – contracts and leases and licenses require a lot of production from lawyers. These don't seem as if they are usefully called non-produced assets.

11.22 – lacks sufficient institutional detail. For example, deep sea minerals under the high seas have largely been allocated to countries, high seas tuna and whales are governed and allocated by international agreement, local air quality is managed by governments on behalf people. Something should be added to the effect that many institutional arrangements exist that satisfy the ownership condition.

11.29 – this is confusing because natural capital was removed from the produced capital category and natural capital was not divided into produced and non-produced assets. This can probably just say including natural capital.

11.31 – again "non-produced" in front of the natural capital is confusing or inconsistent.

11.86 – it is worth pointing out that the value of such moments often capitalize into other structures, much like some forms of natural capital.

11.88 – is confusing because natural assets have been excluded and land is a natural asset. This speaks to the issue of marginalizing off natural capital.

11.97 and following – this section is unlikely to age well. Not sure what to do about it.

11.114 Data and databases generally, how do we deal with the household production and passive collection of things like cell phone data or likes on social media?

11.121 – household produced you tube or ticktock content?

11.122 – this is wrong. There are many firms that depend on volunteer user content. This should actually be through to expand the production boundary.

11.156 How are these not natural resource then?

11.178 – this reasonable, but there are two other concerns. First, over time what is an ecosystem asset and what is a natural resource may change as understanding of production processes change. Second, elsewhere in this chapter produce and non-produced natural capital are discussed, but nowhere are those distinctions defined.

11.179 – rather than timber the term forests should be used. Forest can act as natural resources for things other than timber extraction.

11.180 – this is somewhat problematic because there are an increasing number of contracts written on arbitrary ecosystem types, such as conservation easements and REDD+ programs. We need to be clear that if an ecosystem asset can generate a transaction, then it is a natural resource even if it is not extracted.

11.182 – can't water resources be produced through reservoir management and dam process? Also, can't land be produced through fill process (look at southern Manhattan, high profile projects in the UAE, and activities in the South China Sea).

11.184 – This needs to tempered some. There are international agreements governing things like deep sea minerals, so that they are assets. Also, local air quality can certainly be managed by local governments as an asset (observe China when it hosted the Olympics and France with respect to water the Sein during its Olympics). It should also be emphasized that is common for governments to act as institutional units.

11.185 – Again I will use air quality, local air quality is tightly connect to worker productivity, that added productivity of improved air quality can be captured by local firms and by taxing authorities. Thus, local air quality is an asset that is relevant from macroeconomic decision making.

11.194 – also need to address mineral rights, right of ways? This is challenging because these rules might very need to vary by country. It is also hard to separate many natural assets from the land they are on.

11.202 further break downs into metallic and battery resources should be encouraged (e.g., nickel, cobalt etc.).

11.203 The advise to allocate water to land if land is the greater value and vice versa will create problems. The reason is that if you start doing this you will always get one or other. Needs to state that efforts should be made to separate the two.

11.205 This is good. It should be further stated that it is rare that biological resources fall do not have institutional owners.

11.207 good job

UK Statistics Authority

11.216 – how to tree trees felled for timber that also enable owners to extract admission fees to parks or that used as part of a water management system? These trees should not be treated only as single yield timber products.

11.219 – "Possible benefits derived from the growth of trees not intended for future timber production are not given rise to the recognition of assets." Should be removed. There are many timber growth operations that are made economically viable by collecting payments for other services during the growing period. This many include direct conservation payments. Moreover, permitting for timber may be conditioned on providing these other services.

11.220 – "Any increase in the volume of this underlying asset, which is the result of an increase in the regenerative potential of the forest land, is to be recorded as gross fixed capital formation. Any decline in this regenerative potential should be recorded as depreciation." This is good.

11.222 – something seems missing here.

11.234 – this is good.

Reference to non-produced and produced natural capital are confusing, given the fact that the higher division now appears to be produced, non-produced, and natural capital. I'm not sure the references to produced or non-produced natural capital are all that helpful.

The chapter should also note that some works of art can be rented and are, thus, fixed assets rather than valuables. For examples, see https://www.curina.co/ and https://artforfilmnyc.com/. Right now, the section on gross fixed capital formation does not mention this.

Israel –

Reading the chapter, it is difficult to understand how natural capital is included in the accounts. One could add a table showing how it is included.

European Central Bank –

Crypto assets without liabilities. From the conclusions of the joint AEG/BOPCOM meeting of March 2023 "*The national accounts and balance of payments communities to monitor developments relating to non-liability crypto assets and review the recommendation in case there are significant market, regulatory and/or accounting changes that may justify a revision either before or after the release of the manuals in 2025.*" The recent developments in the crypto asset markets (e.g. creation of bitcoin ETFs, development of crypto lending platforms) make it advisable to reopen the discussion on the classification of bitcoin and similar assets.

Colombia –

Chapter 11. It is suggested that the description and methods of calculating depreciation and depletion be expanded to ensure that they accurately reflect economic reality. This includes clearly defining the scope of depreciation and how it is calculated, as well as adjusting the useful life of assets to align with current economic conditions.

Chapter 11. It is recommended that a thorough review be conducted to validate the extent to which recommendations from international accounting standards have been applied in company accounting. Although standards have advanced, it is important to ensure that these adaptations are adequately reflected in accounting practice.

Chapter 12: Financial Account

Germany Bundesbank

Paragraph 12.136 currently states that margins always remain with the original owner ("Ownership of the margin remains with the unit that deposited it."), which was previously only the case for repayable margins, and that they must be recorded ("They are recorded as an increase or decrease in deposits, loans, or other accounts receivable/payable with a corresponding entry in a decrease in financial derivative assets or liabilities."), which was previously the case for nonrepayable/variation margins. It seems questionable whether the restriction "In organized exchanges and clearing houses,..." represents a clear distinction between the two variants of margins.
In our view, the current text is misleading and contradictory. If the term repayable/nonrepayable margins is to be discontinued, another distinction must be made to distinguish between the different accounting methods.

Japan

Paragraphs: 12.80 and 12.81 （Lending crypto assets）

The treatment in the SNA of the lending of crypto assets requires clarification. Conceptually, different types of lending transactions according to the combination of assets could be envisaged: (1) cash vs NLCA (Non-liability crypto assets used as a means of payments), (2) stablecoins vs NLCA, and (3) NLCA vs NLCA. In the current 2025 SNA, securities repurchase agreement and security lending transaction are regarded as financial transactions and are classified as "loans" in Chapter 7 (paragraph: 12.80). Additionally, Chapter 7 (paragraph: 12.81) explains as the following: If a securities repurchase agreement does not involve the supply of cash (that is, there is an exchange of one security for another, or one party supplies a security without collateral), there is no loan or deposit. In the case of NLCA lending, the assets lent are non-financial assets.

One question arising from this treatment is whether (1) cash vs NLCA lending should be regarded as a financial transaction. A second question is how to treat (2) stablecoins vs NLCA and (3) NLCA vs NLCA lending transactions. Further explanations to clarify those issues should be included in the 2025 SNA or supplementary documents, such as a compilation guidance.

Eurostat

Para 12.8: "…Financial claims represent all financial instruments that give rise to an economic asset that has a counterpart liability, including shares and other equity in corporations…". This addition is redundant and may be deleted. "Financial claims" have just been defined in 12.7.

Para 12.105: "…Therefore, in order to distinguish when **non-financial units** acquire instruments such as securities and equities directly …". Why limit to non-financial units? Replace with "investment fund shareholders"?

In 2008 SNA, 11.45 and 11.60 somewhat contradict each other in relation to the treatment of unallocated gold accounts with non-residents, with 11.60 suggesting a treatment as AF.2 (which would create a consistent system) and 11.45 creating an inconsistency in the system by suggesting an AF.11 asset matched by an AF.2 liability. Draft chapter 12 reinforces the inconsistent view in **12.65**. The reasons for choosing such a conceptually inconsistent treatment are not quite clear, instead of opting for the AF.2 option in both assets and liabilities, which does not contradict the quadruple accounting system of the SNA.
12.46 Could the wording of "other investment, currency and deposits" be adapted to SNA instrument names?
12.52 What does "with maintenance of value" mean?

Para 12.18: Intermediation is usually distinguished from financial market. In addition, banks do not take deposits to provide loans; they provide loans (creating deposits) and take deposits (they created or not) simultaneously. Generally, there is a confusion between the concept of net borrower/net lender and the one of investors/issuer of liabilities. HH, net lending sector, take loans. NFC, net borrowing sector, invest in financial assets. We suggest the following adjustments: "In many other cases, financial intermediaries have as their special function ~~the creation of a financial market that links~~ matching of lenders' (investors) and borrowers' needs ~~indirectly~~. […] The financial institutions incurs liabilities to investors ~~net lenders~~ through taking deposits or issuing securities and providing the financial resources thus mobilized to borrowers…"

Para 12.81: We doubt about the usefulness of the addition "However, margin calls in cash under a repo are classified as loans." GN F.10 does not foresee different treatment of cash provided initially in a repo and subsequent margin calls. As indicated in GN para 50, margins can be classified as loans, deposits or other accounts, and not as loans only.

Para 12.112: "real estate" should not be deleted, as investment funds can invest in real estate. Only if their income comes from real estate activities for more than 50% are they reclassified as non-financial corporations. We suggest leaving "real estate" and adding a clue to reflect this feature.
Should section A be renamed "Chapter overview", as in chapter 1? It would be useful to ensure consistency across chapters.

OECD

12.77: Crypto assets that qualify as debt securities have been added as a separate category next to short-term and long-term debt securities. We are wondering whether that would make most sense as they could also concern short- and long-term ones and users may just be interested in this breakdown for the full asset class. In that regard, the breakdown into crypto assets that qualify as debt securities and other debt securities may better be presented as an additional breakdown (which may be considered when the share of debt securities in the form of crypto is relatively large).

12.69: "Money market instruments" is added as an additional example of debt securities. However, as certificates of deposit and commercial paper are examples of money market instruments, it may be better to talk about "other money market instruments". This may avoid any confusion.

12.70: It would also be good to refer to 'debt tokens' as more common crypto assets that would qualify as debt securities. They represent debt instruments such as corporate bonds but relying on cryptography. It may be important to clarify that, as otherwise readers may think it only concerns utility tokens and crypto assets designed as a medium of exchange within a platform only. This may also require some changes in 12.77.

12.84: In view of the emergence of crypto lending, some text may need to be added on that as well.

12.120: The title 'Entitlements to non-pension benefits' could be further clarified by adding a reference to social insurance, as that is (if I understand correctly) what this item relates to, correct? This may help to distinguish it, among others, from 'non-life insurance technical reserves'. So perhaps 'Entitlements to non-pension social insurance benefits'.

Bank of Thailand

Paragraph 12.116 - "*Life insurance and annuities entitlements show the extent of financial claims policyholders have against an enterprise offering life insurance or providing annuities. The only transaction for life insurance and annuity entitlements recorded in the financial account is the difference between premiums less service charges receivable and claims payable.*" The word, "claim payable", in life insurance and annuities entitlements session should be replaced with "benefits due" to make it consistent with chapter 24: Insurance and pensions.

Paragraph 12.92 and paragraph 12.94 - Subscription rights as a one of many components of equity and investment fund shares should be mentioned in the first paragraph of equity and investment fund shares session as well to provide the scope of the overview components for compilers. For example, "Ownership of equity in legal entities is usually evidenced by shares, stocks, depository receipts, participations, subscription rights, or similar documents.".

Sweden

Factoring

Comments: The description of the economic event is not accurate in the proposal for recording of factoring. The factor creates a relation with a producer or a retailer, but this relation is made after the sales has taken place and does not change the relation between the producer or retailer and their customers. Thus, reclassifying a trade credit into a loan when the factor undertakes the indirect financing is not a correct description of the relation between the involved parties. Instead, a new financial instrument or contingent liability is created between the supplier (producer or retailer) and the factor.

Furthermore, a loan is evidenced by documents that are non-negotiable according to para. 12.78 b. This is obviously not the case between the buyer (customer) and the factor. From a legal point of view the buyers are tied to the payment terms of the goods transaction. It is common that the invoice stipulate that a late payment means that interest and maybe a fee will be charged for the time of delay after the payment is due to be paid. So, it is only after the payment has become due that an interest will be charged and the terms becomes more like a loan. A reclassification of financial instruments is not to be recorded as a transaction. Reclassifications are recorded as other changes in volume (cf. para. 13.68).

To clarify the issue of factoring we propose the following wording of para. 12.87:

12.87 ***Factoring is a transaction in which a factor, which can be a bank, a specialized factoring company, or other financial organization, buys trade accounts receivable from a supplier at a discount***.

Factoring is commonly viewed as a purchase or sale of invoices transferring the legal right of the claim on the debtor to the factor. In factoring, the indirect financing by the factor to the debtor is treated as a loan, after the date the invoice has become due to be paid. The reclassification of the trade credit between the supplier and the buyer to a loan between the factor and the buyer is recorded in the other changes in volume account. The accounts receivable concerned are trade-related receivables arising from the provision of goods, services, or work in progress. There are two basic types of factoring: non-recourse and recourse factoring. In a nonrecourse agreement, the factor assumes the full risk of non-payment by the debtors at maturity and therefore

may charge the supplier a higher fee. In a recourse agreement, all or part of the risk is kept by the supplier. The factor may also keep a reserve that should be paid back to the supplier once the debtor pays its liability in full. The recourse is seen as a guarantee treated as a contingent liability for the supplier, which should therefore not be recorded unless and until being activated by the factor. The factoring income is treated as a fee paid by the supplier; see paragraph 7.xxx. The reserve held by a factor is classified as a deposit, a loan, or other accounts receivable/payable, following the recording of other cash collaterals (e.g., repayable margins for financial derivatives).

European Central Bank

In 12.65 **unallocated gold accounts** are said to be classified as deposits on the liability side while 12.45 says that they should be classified as monetary gold if held by the central bank (and also classified as reserve assets). This is an obvious inconsistency.

Moreover and as a result of this, the instrument classification of unallocated gold accounts as an asset depends on its functional classification. We believe that should never be the case and that the instrument and functional classification should be totally orthogonal (this is actually the only case where this happens).

We suggest that unallocated gold accounts are always classified as deposits. They should also be classified as reserve assets if held by the central bank, but without affecting their instrument classification as deposits.

12.58 Draft is too general. GN F.7 states only e-money issued by deposit-taking institutions are transferable deposits:
Members agreed with treating e-money used for direct payments to third parties—including for cross-border payments—as transferable deposits (Option 4) when they are liabilities of deposit-taking institutions.

12.81 The reference to margin calls being classified as loans is not in line with the recommendations on cash collateral. Unfortunately, there has not been any discussion on the treatment of margin calls during the 2025 SNA research phase and it is safer to drop this reference from here.

12.127 c To be in line with the way options and CDS are seen in the market, better say "at maturity, forwards payments can be positive and negative, while in options they are positive or zero"

Netherlands

End of paragraph 12.12: "In all cases …non financial accounts." What is added here in the draft text is also mentioned in the last sentence of the paragraph. My suggestion would be "In all cases of transactions involving financial instruments mentioned above the first pair of entries appears in one or more of the non-financial accounts".

First sentence of paragraph 12.23: 'contingent assets and liabilities' instead of 'contingent liabilities'.

Paragraph 12.34: The second to last sentence seems to suggest that all increases in value over time for bonds represent interest. It should be made clear that this is only the case at the time bonds are repaid.

Paragraph 12.124: At the end the paragraph a reference is made to 'usually other investments' whereas earlier in the paragraph it was stated 'usually classified under deposits'. This seems inconsistent.

Chapter 13: Other Changes in Assets and Liabilities Accounts

Eurostat

There is some inconsistency in use of non-cultivated and uncultivated. In general, reference is made to "non-cultivated biological resources" (e.g. 5.66, 7.285, etc.) but "uncultivated forest" both of which seem reasonable. But there are a couple of references to "uncultivated biological resources" which should be changed to non-cultivated? For example the heading above 13.20 and 13.20 itself, 11.205.

Para 13.72: the text describes the transactor approach. It should be aligned to chapter 27and also refer to the debtor-creditor approach. Otherwise, better to delete it outright.

Para 13.20 uses the criterion of control, responsibility and management, rather than migration, and is therefore inconsistent with the Consolidated list of recommendations.

OECD

13.26 and 13.27 (also 13.63): These paragraphs seem to draw inconsistent conclusions: stranded assets means that the exploitability of resources is reassessed and leads to a downward reappraisal.

13.29: The reference to the "suspension of fishing to ensure the survival of fish stocks" seems incorrect, as this would now be treated as regeneration and, hence, negative depletion; not as OCV.

13.31: "All degradation of land, water resources and other natural assets due to less predictable erosion and other damage to land from deforestation or improper agricultural practices should also be considered as a quality change, and thus recorded in the other changes in the volume of assets and liabilities account." Deforestation should not be considered as OCV, but as it would usually go hand in hand with depletion of timber resources and forest land, it should be recorded as depletion.

13.21: We think it would be better to talk about "the fishing ground" or "fishery" when referring to "the area through which the fish migrate", also as not all fish migrate. We are also not sure what "encapsulated in the value of the quota" means, as there are all sorts of fish quota's, i.e., tradeable, non-tradeable, allowable annual catch, permits in perpetuity etc.

13.21: Reference is made to "the growth of fish" as one of the components of the value of the fish, but it should probably only refer to "the fish" (i.e., the fish that are currently alive and expected to be caught) as it concerns stock measures. Furthermore, we think that it may not be feasible in practice for countries to separate into two elements in case of fish resources, unlike with timber resources where stocks of standing timber are work-in-progress. This could perhaps be added. Furthermore, perhaps this paragraph should simply express that in case that well-developed markets in tradeable long-term fish quota exist, their transactions may be used for valuation of fish resources. However, in the majority of cases, one would resort to the NPV of future resource rents. Please note that both in case of NPV and in case of quota transactions, we obtain a valuation of the combined asset i.e., the existing fish + underlying asset.

13.55: Reference is made to "the effects of acid rain", but whereas this was an environmental problem in the 1990s, it has been more or less resolved by now, so it may be better to replace with a more current issue.

13.23: What is the implication of the deletion of the sentence "For virgin forests, gathering firewood is not commercial exploitation, but large-scale harvesting of a virgin forest for timber is and brings the forest into the asset boundary"? Does this imply, in light of treatment of all timber resources as cultivated, that collection of firewood would also give rise to recognition of an asset?

13.32: The text may lead to some confusion as it refers to the use of natural resources under "contracts, leases and licences" whereas elsewhere in the text it is specified that, to avoid double counting, the value of these leases should be included under the natural resource and not under contracts, leases, licences.

European Central Bank

13.30 indicates that CAWLM are created via other changes in volume of assets. This is not in line with GN F.18 that indicates that the creation is via transactions (paragraph 36 in the GN).

13.39 refers to "allocated gold accounts" where it should refer to "**un**allocated gold accounts".

13.64 Last sentence is better to read "Subsequent changes in mortality data will affect the liability..." as this is the one and only possible change in value other than transactions to be recorded via volume and not via prices.

Yale University

There is a lot of normative language in chapter 13 that is uncharacteristic of (and likely inappropriate for) the SNA.

13.21 – no reference to the sustainable level should used. Rather, the, "If levels of extractions are lower than the regeneration of the underlying asset will increase, while it will decrease if extract exceed regeneration." Sustainable is going to confuse people.

13.23 – What about the case where groundwater is extracted and used vertically in agricultural production. Here it is certainly an asset, but do vertical integration we never see a market transaction for water?

13.29 – in the example of suspending a fishery, this must imply that the marginal value of fish in situ exceed the value in harvest, therefore the value of the fish stock must grow if such policy is observed. Another, example is a forest is not allowed to be cut, then the value of the first must exceed the value of the timber harvest. It should not be assess a zero value. That would be completely wrong.

13.31 -- "improper agricultural practices." Whether or not the practice is improper is beside the point. The point is there is soil erosion. The change in value is the same irrespective of whether it was best practices or not.

13.63 and 13.105 – It is important that NPV is based on assuming business as expected. This means that for some natural resources changes are happening. Holding the flow of rents constant often means institutions or natural processes must be changing. This should be pointed out because it is common practice to interpret this condition as holding rents constant.

UK Statistics Authority

Bank of Thailand

13.4 - The heading of the chapter of "Other changes in assets and liabilities accounts" is not consistent with the coverage of the detail in the accounts because not only other changes is mentioned in this chapter but also revaluation changes. Using the other changes as a name of the heading of this chapter might lead to misunderstanding. The heading should be covered both revaluation and other changes in assets and liabilities accounts.

Netherlands

13.66: It is unclear how the following sentence should be understood: "It may also include the impact of settlements that eliminate all further entitlements for part or the whole of entitlements" relates to negotiated and non-negotiated changes. It sounds like a negotiated change that should be classified as a capital transfer. Could an example be given?

13.72: It would be useful to explain that this is only the case when the transactor approach is used, and not if the debtor/creditor approach is used. As chapter 37 now also includes the debtor/creditor approach, this distinction is relevant.

Germany FSO

13.21 This paragraph on fish in open seas is not clear, i.e. what is being depleted here (which asset)? Please clarify.

It is not understandable, how the underlying asset (i.e., the geographical area through which the fish migrates) can be associated with the value of the fish quota put in place and how this is supposed to be depleted.

What is the connection of fish quota and natural growth of fish? Fish growth might be unrelated to quota…(there might be other considerations in place like increased environmental protection).

13.21 Once the paragraph on uncultivated biological resources yielding once only products like fish in open seas, is clarified (see our comment above), it should be (also) placed / copied in chapter 11, under heading Uncultivated biological resources, after para 11.222.

ISWGNA

The last sentence of 13.123 should say "the impact of these holding gains HAS to be reflected in the revaluation of the claim OF the pension fund ON the pension manager…"

Chapter 14: Balance Sheet

Eurostat

Parts of this chapter related to natural assets will have to be modified according to the work of the Natural Capital Task Team and the results of the subsequent AEG consultation. In particular:

Paras 14.51-14.55 on Land: we understand that land improvements (and as a result costs of ownership transfers) may be included in land (hopefully as a separate sub-component. This would make land partly "produced" and, as a result, "depreciable".

The "exclusion of the value of any other natural resources above and below it" (14.51), is also under discussion by the AEG and the OECD EG NC: more specifically the "underlying asset" of some biological resources ("forest land" - see also 14.62 - , "agricultural land") may indeed be included in land (hopefully as a separate sub-component). This would make land partly "depletable".

Paras 14.59-14.63: the text has to be revised to take into account the AEG consultation. The main issue is the probable separation of the underlying asset (agricultural land, forest land, ...) from the value of the biological resources (and probably its classification elsewhere, under land).

Concerning the valuation of the "timber work in progress" (14.62) the draft OECD handbook refers to the use of "stumpage price" to calculate the value of the inventories (to be separated from the value of the underlying asset). This could be added in the text. The valuation of wild fish in open seas is also still under discussion by the OECD EG NC. In our view, the separation of the underlying asset and the biological resources is always needed when using the NPV method: this is relevant also for "agricultural land" (see 14.59 where NPV is mentioned as a possible method).
The draft 2025 SNA text is giving more specific information on only some examples of resources (typically fish and timber) ignoring to provide conceptual general guidance which is relevant to know how to treat "residual resources" (such as water, other, ..). Should these residual resources be better covered?

Para 14.18: “…alternative valuation methods need to be applied to estimate what the prices would be were the assets to be acquired on the market on the date to which the balance sheet relates.” This sentence is hard to follow. May the editors find a simpler way to express this concept?

Para 14.39 concerns the costs of ownership transfer. Should “… on non-produced assets (other than land) are …” be changed to “… non-produced assets and natural resources (other than land) …”?

Para 14.67. “For deposits, […]. The amount of principal outstanding includes any bank interest i.e. interest net of and implicit financial services on loans and deposits due but not paid.” We suggest a reformulation for clarity. In fact, the implicit financial service is not “due”, it is an imputation, not a legal obligation. What will be due is the bank interest, i.e. the interest (SNA definition) minus the FISIM. Here we only refer to deposits, not to loans.

Para 14.73: “The values of loans […]. This amount should include any accrued bank interest that has been earned but not been paid, that is interest minus implicit financial services on loans. It should also include any amount of implicit financial services on loans and deposits (the difference between bank interest and SNA interest) due on the loan that has accrued and not been paid. In some instances, accrued bank interest may be shown under accounts receivable or payable but inclusion in loans is preferred if possible." We suggest a reformulation for clarity. In fact, the implicit financial service is not "due", it is an imputation, not a legal obligation. What will be due is the bank interest, i.e. the interest (SNA definition) minus the FISIM. Here we only refer to loans, not to deposits.

Para 14.100: "Interest due but not paid on other accounts receivable or payable may be included here but, in general, bank interest due but not paid on deposits,…" For consistency with paras 14.67 and 14.73.

Should section A be renamed "Chapter overview", as in chapter 1? It would be useful to ensure consistency across chapters.

We assume that the detailed classification of assets, not included in this draft, is still to be finalised. It would be useful to include it in the draft 2025 SNA version that will go to the AEG in October.

We could not check the decision tree for valuing unlisted equity as the image quality was too low.

Italy

§ 14.1 We suggest opening balance sheet and closing balance sheet in analogy with terminology used in row 5 and in analogy with para 14.8

§ 14.3 The reference to the case of finance leasing may be extended to other cases where the legal owner is different from economic owner such as of a PPP or a concession that is not only to the case of a financial lease.

§ 14.9 We suggest to also refer to other capital items which could include natural, human, social, beside physical/financial capital. These items can be identified separately and analysed in asset account.

Section 2: Since the section describes also liabilities accounts, the title of asset accounts should be adapted

14.21 It is suggested to clarify the difference between face value and nominal value (i.e. accrued interests)

The guidelines are clear, but some additions and new chapter paragraphs relating to important aspects such as valuation may need to be better clarified in terms of the main approaches adopted, i.e. market value, capital service contribution (accumulated and revalued) and value current net value.

Regarding natural resources, the chapter should emphasize the importance for the public sector and the consideration of not only market value (or net present value), but also non-market value. Furthermore, the discussion could include some examples of natural resources that could be useful to better clarify the conceptual aspects. Links between public sector and private sector natural resource elements need to be considered.

Germany FSO

Except for the application of residual value method, recommendation D.4 (para 53) has not been included here or in any other chapter (or not found).

The general concept of “an underlying asset” for natural resources is not clear. For example, which natural resources have underlying asset and which not, or whether all natural resources have an underlying asset or not, or if some underlying assets are implicit, while some explicit like in case of timber and forest land. The issue of existence or possibly non-existence of an underlying asset should be clarified for all types of natural resources including explanations on how exactly one should account for these underlying assets in the SNA (this may among other possibly involve GFCF, depreciation or depletion, OCV, ?).

OECD

14.3: The description of the recording of the situation “when a natural resource is the subject of a resource lease” is inconsistent with that in paragraph 27.16, where three possible situations regarding the rights to use of a natural resource are described. The second option presented there entails a resource lease and option 3 a splitting of assets. The current paragraph 14.3 lumps 2 and 3 together somehow.

14.48: Reference is made to “marketable operating leases, licences to use certain natural resources, permits to undertake specific activities and entitlement to future goods and services on an exclusive basis” as examples of “contracts, leases and licenses”, but it is unclear which of these are recognized as assets in their own right and how double counting with the value of natural resources is avoided. This is an issue that pops up at several places in the SNA (see also comment to paragraph 13.32).

14.58: We recommend to remove the reference to “least-cost alternative”, as the EGNC has come to the conclusion that this is not a valid method for use in a national accounts context due to is reliance on counterfactuals.

14.62: The text seems to suggest that most countries compile the asset value of trees for timber production and similar cultivated resources based on NPV of RRs which is unlikely. Most EU countries apply the so-called ‘stumpage valued method’ and/or value forest land based on some observed market transactions. The last sentence also seems confusing: forest land is the name for the land under forestry activity, so would be equal to the value of the land. For these reasons, we suggest rephrasing to “There exist a variety of methods to value timber resources and/or forest land including stumpage value methods, market transactions in land, and resource rent. It is recommended to clearly distinguish between two distinct assets, which need to be recorded separately under the relevant asset categories: (i) the work-in-progress representing the current stock of standing timber; and (ii) the underlying asset (or forest land) which captures the provisioning services of the asset in generating future timber growth.

The only thing is that certain paragraphs may need to be updated based on final classification of biological resources (in view of the AEG consultation).

European Central Bank

Paragraphs 14.86 to 14.89 describes the possibility of recording of negative equity for limited liability corporations. Such negative asset would fall under the concept "constructive liability" as it would not be based on legal obligations. Therefore the treatment contradicts 4.113 that says that constructive liabilities are generally not recorded in SNA and offers as the only exception the case of standardized guarantees.

14.11 it seems strange the reference to the capital account in this chapter on balance-sheets.

Sweden

Valuation of assets in the balance sheet

There seems to be some misunderstandings regarding the use of market prices in the valuation of assets. Produced assets (fixed assets and inventories) are valued according to their replacement costs at the time the balance sheet is made up. In case of assets still in production this corresponds to the market price of newly produced assets. Assets no longer produced are valued according to their estimated written-down current production costs.

Natural resources, non-produced assets and financial assets and liabilities should ideally be valued according to observable market prices or prices in the exchange between unrelated economic agents.

We propose the following wording of para. 14.18 and 14:19:

14.18 Ideally, observable market prices should be used to value assets and liabilities in a balance sheet. It is important though to make a distinction between the initial recognition of assets, and the subsequent valuation of assets. Regarding the initial recognition, i.e., the time at which the asset (or liability) enters the balance sheet, the relevant transaction value, in the case of financial assets adjusted for commissions and fees, should generally be used. For subsequent valuation, if there are no observable market or near-market prices because the items in question have not been produced and sold on the market in the recent past, alternative valuation methods need to be applied to estimate what the prices exclusive of wear and tear would be were newly produced assets to be acquired on the market on the date to which the balance sheet relates. This lack of data is likely to be the case for older non-financial assets.

14.19 For valuing non-financial assets, two basic approaches can be distinguished, the first one based on the market prices in the current period for same kind of assets, and the second one based on the contribution of capital services,

including depreciation, to the production process in the remaining service life of the asset. The latter approach is usually approximated by accumulating and revaluing acquisitions less disposals over its lifetime and adjusted for changes such as depreciation. Similar valuation issues may exist in the case of, for example, natural resources, the stocks of which are generally not traded in the market, so any values derived from occasionally traded stocks cannot be used for the valuation of similar assets, also because of the heterogeneity of the resources in question. In these cases, the value on the balance sheet can be approximated by the net present value of future benefits derived from these resources, which represent an alternative way of estimating the capital services to the production process.

Valuation of intellectual property products

Comments: Regarding the problems of valuing international transactions in intellectual property products we think that the issue need a good description. The problems mainly regard IPP originally produced under own account but later sold. The sales value and the value in the capital stock might differ substantially giving rise to a goodwill and/or a marketing asset.

It is common that global enterprise groups acquire corporations or subsidiaries of other enterprise groups located in other economies. The buy-up is not followed by merging enterprises since this isn't legally possible, the restructuring is instead made by transferring part of the assets, notably IPP rights, from the acquired enterprise to a parent in the global enterprise group. This has, in a sense, the same consequences as the sale of an enterprise as described in para. 13.36. The price paid for the company and the value of the assets might not match and the difference should be accounted for as goodwill and/or marketing assets. The acquisition of companies is not observed in statistics but the later transfer of assets is in many cases captured in the BoP. The problem is to verify that the relevant values recorded in the national accounts for fixed assets etc. matches those reported in BoP.

It is important that the written-down replacement cost is appropriately described in the para. 14.26. Any reference to the prices on the second-hand market are making the issue ambiguous, it is not the development of the market prices of second-hand goods that is recorded in the NA. The replacement cost refers to the prices of goods produced in the current period which means the same period as the transfer of second-hand assets is recorded for. Maybe this is best understood in relation to inventories bought in a previous period and used as inputs in the current period.

The most comprehensive description of replacement cost we have noticed in the economic literature is found in Keynes "General theory…", confer second paragraph of the first part of chapter 11, where it is stated:

'Over against the prospective yield of the investment we have the *supply price* of the capital-asset, meaning by this, not the market-price at which an asset of the type in question can actually be purchased in the market, but the price which would just induce a manufacturer newly to produce an additional unit of such assets, *i.e.* what is sometimes called its *replacement cost*.' (note that italics appear in the original text)

In relation to the present value of future benefits in para 14.41 it should be noted that when this method is used it should strongly correlate to the benefits of the unit that has produced the asset on own account, when used in the units' economic activity prior to the sale as a second-hand asset. The reason for this is that it is common that prices of second-hand objects have been influenced by other factors than what's related to the social cost of production. This is sometimes referred to as the market price for lemons and can also be understood as the price influence collectors have on rare second-hand objects. In this sense IPP is rare since it is only owned by one unit at time, under the R&D and copyright laws ruling in most countries. It should also be noted that the holding gains are captured by the changes in production costs or by other words the replacement costs.

We propose the following wording of para. 14.26 and 14.41:

14.26 Most non-financial assets change in value year by year reflecting changes in basic prices or market prices of newly produced goods used as assets. This is revaluation of the gross value according to the replacement cost principle. At the same time, initial acquisition costs are reduced by consumption of fixed capitalconsumption of fixed capital (in the case of fixed assets) or other forms of depreciationdeterioration over the asset's expected lifeThis valuation is sometimes referred to as the "written-down replacement cost". When reliable, this procedure gives a reasonable approximation of what the exchange price would be were the asset produced in the same period it is offered for sale.

14.3614.41 Originals of intellectual property products, such as computer software (including artificial intelligence), data and databases, and entertainment, literary or artistic originals should, according to the replacement cost principle, be entered at the

written down value of their initial cost, revalued according to the costs of the current period. Since these products often will have been produced on own account, the initial cost may be estimated by the sum of costs incurred including a return to capital on the fixed assets used in production. If value cannot be established in this way, it may be appropriate to estimate the present value of future returnsbenefits arising from the use of the original in production of the unit that has produced it on own account.

<u>Terminal costs</u>

Comments: As a consequence of our proposal for para's 11.229 and 11.230 para. 14:32 needs to be amended.

We propose the following wording for para. 14.32:

14.2814.32 In principle, fixed assets should be valued at the prices prevailing in the market for assets in the same condition as regards technical specifications and age. In practice, this sort of information is not available in the detail required and recourse must be had to valuation by another method, most commonly the value derived by adding the revaluation element that applied to the asset during the period covered by the balance sheet to the opening balance sheet value (or the time since acquisition for newly acquired assets) and deducting the consumption of fixed capitaldepreciation estimated for the period as well as any other volume changes and the value of disposals. In the case of anticipated terminal costs, these costs should be added under provisions; see also the section on supplementary items below. In calculating the value of consumption of fixed capitaldepreciation, assumptions have to be made about the decline in price of the asset and even where full market information is not available, partial information should be used to check that the assumptions made are consistent with this.

<u>Separation of values for different functions of land</u>

Comments: It might be difficult to separate values for the different functions of land. We propose that the separation mainly should be done between manmade structures and land. In case the ownership of other functions or resources can be traded separately these can also be separated otherwise the land value will include them. It is important that we use the same principles of ownership of natural resources regardless of what kind of resource it is. It should be noted that the right to use is not evidence of ownership of a natural resource.

We propose the following wording for para. 14.51 through 14.53:

Land

14.4514.51 Land provides the economy with several functions including space to access mineral and energy resources and soil for plantations. In principle, the value of land to be shown under natural resources in the balance sheet is the value of land excluding the value of improvements, which is shown separately under fixed assets, and excluding the value of buildings on the land which is also to be shown separately under fixed assets. The value of any other natural resources above or below land, over which separate legal ownership rights can be established, should also be excluded and recorded under the relevant category. Land is valued at its current price paid by a new owner, excluding the costs of ownership transfer which are treated, by convention, as gross fixed capital formation and part of land improvements and are subject to consumption of fixed capital depreciation.

14.4614.52 Because the current market value of land can vary considerably according to its location and the uses for which it is suitable or sanctioned, it is essential to identify the location and use of a specific piece or tract of land and to price it accordingly.
14.4714.53 For land underlying buildings, the market will, in some instances, furnish data directly on the value of the land. More typically, however, such data are not available and a more usual method is to calculate ratios of the value of the site to the value of the structure from valuation appraisals and to deduce the value of land from the replacement cost of the buildings or from the value on the market of the combined land and buildings. When the value of land cannot be separated from the manmade structure including buildings, plantations and vineyards,the composite asset should be classified in the category representing the greater part of its value. Similarly, if the value of the land improvements (which include site clearance, preparation for the erection of buildings or planting of crops and costs of ownership transfer) cannot be separated from the value of land in its natural state, the value of the land may be allocated to one category or the other depending on which is assumed to represent the greater part of the value.

Saudi Arabia

More details should be included for countries with no balance sheet can compile it effectively.

Yale University

14.62 – also any intermediate services provide by live trees, such as rents for accessing the forest for recreation or contributions to providing drinking water downstream.

14.63 – "Non-cultivated biological resources, water and other natural resources are included in the balance sheet to the extent that they have been recognized as having economic value that is not included in the value of the associated land." This seems different than what is in Chapter 13. Also, there is reason to push to disaggregate land.

Bank of Thailand

"Natural capital" is used in the part of introduction while "Natural resources" is used to mention the detail in section C. These two words are the same meaning. Finally, the same wording and same meaning should be applied for both introduction and Section C.

Financial assets and liabilities as a part of financial account should be mentioned in the session of introduction as well.

6. Supplementary items - Sub-levels of supplementary items in both Chapter 14 (Balance sheet) and Chapter 12 (Financial account) should be concluded and displayed in the same sub-levels. For example, non-performing loans and sustainable finance are appeared in the supplementary items in financial account but thery are not mentioned in supplementary items of balance sheet. Likewise, concessional lending, consumer durables and accounting for provisions are not existed to chapter 12 although these items are recorded in the financial assets of financial account.

ISWGNA Editorial Team

14.115 would be clearer if it said, "provisions related to financial assets" and "provisions related to non-financial assets" rather than "financial assets related provisions" and "non-financial assets related provisions." (But if the latter phrasing is retained, drop the s on the end of assets.)

Netherlands

Para 14.101 is, we believe, inconsistent with the discussion of emission permits in chapter 27. In chapter 27 it is mentioned that differences between auction value and market value are written off at the time of surrender. This seems to suggest that 'in between' the market value prevails. A practical point, in the case of the EU we will never know if a permit ownership, as reported by a business, was initially given away for free or auctioned. Also for that reason we would recommend to record all ETS permits, obtained for free or purchased, at market value. Anything else is against the main principles of SNA and BPM.

Bank of Spain

To facilitate the interpretation and use of the decision tree for Valuing Unlisted Equity (Figure 14.1), it is beneficial to use consistent naming for all methods, ensuring they match the terminology used in the main text. This is particularly important for the method 'Present value/price to earnings ratios'. Specifically, including the term "Present value" would be useful.

Chapter 15: Supply and Use Tables

Israel

15.84 If the issue is mentioned, the problems could be explained more. Why is it conceptually preferred? How is the current treatment different?

Netherlands

Paragraph 15.140: The gross trading profits of corporations also includes depreciation (as recorded by the corporations). Adding depreciation leads to a double counting. Should not the net trading profits be used?

Paragraph 15.148: This paragraph explains why not partitioning would be a problem for the IOT, not for the SUT. For the SUT, it would only lead to adding enormous values in the columns for the wholesale and retail traders. The same holds for paragraph 15.149.

Singapore

Practical guidance on the recording of the "final consumption expenditure of the central bank" would be appreciated, in view of potential confidentiality issue if the concept of final demand for own use is an exception for the central bank and a new category is created under final demand for this purpose.

Eurostat

15.15: for precision, in the equation, on the right hand side, it should be "final consumption expenditure".

15.15: the addition "The components of the "income approach" are also shown in the composition of GVA." is not clear and may need further elaboration.

15.112: It is confusing that GFCF is not listed anymore as one element of GCF, given that the next headline is again GFCF (para 15.113). There is now a mismatch between 15.112 and the following parts.

Colombia

15.15 suggests including a description of the components of GDP by the income approach in the chapter. This will provide a more complete view of how the income components are broken down and analysed in the calculation of GDP.

15.22 suggests specifying which texts are being referred to. This would help readers identify and consult the relevant sources for a better understanding of the topic.

15.40 recommends expanding the discussion on the production of auxiliary units to clarify whether this production should be classified as non-market production or for own final use. More detailed conceptual guidance could provide a better understanding of how to properly classify these activities based on their nature and purpose.

15.106 recommends clarifying whether a column should be added in the use tables for the final consumption of the Central Bank or whether this should be included under the collective consumption of the government. This clarification will help ensure a correct representation of the data in the tables.

15.114 suggests investigating whether the reclassification of a household car to gross capital formation has been observed in existing surveys, or whether imputations based on indirect indicators should be made for this type of transfer. This could help to establish a more systematic procedure for the classification of these assets.

Armenia

In the composition of SUT tables, it is also practically difficult to create a balance in the supply and use parts, which is related to a number of reasons. Is it also possible to describe them more and offer appropriate solutions around them as well?

OECD

Table 15.7: In comparison with Table 14.7 of the 2008 SNA, it is important to add a column for central bank final consumption as this unit is now included in final consumption. This means that Table 15.12 would include this column as well.

Table 15.12: In addition to the inclusion of a column for final consumption of the central bank in the Use Table, some errors in the Supply table of the 2008 SNA should also be corrected. The errors concern:

- Row 11, "Public administration (91)": Column "Total supply (basic prices)" should be equal to 168 which is the number of column (24) "Total economy". Consequently, column "Total supply at purchasers' prices" should be equal to 168. In that way, total supply = total use.
- Row 14, "Total": Because of the errors in row 11, 'total product' should be recalculated for these two columns: (a) Total Supply at basic prices should be equal to 4103; (b) Total Supply at purchasers' prices should be equal to 4236 and therefore equal to total use.

Table 15.14: In addition to the inclusion of a column for final consumption of the central bank, some errors in the 2008 SNA table should also be corrected. The errors concern:

- Row "total use at basic prices": In column "Households" (30) the sum of product equal to 961 and not to 918, as direct purchases abroad should be included. Consequently, in column "Sub-total final consumption expenditure", the sum of product I erroneous as well. It should be equal to 1345 instead of 1302. Same problem for the first column "Total use at basic prices" that should be equal to 4103 (like for Supply at BP) instead of 4060.
- Row 14, "Total uses in purchasers' prices: The first column "Total use at basic prices" that should be equal to 4236 (like in table 15.12) instead of 4193. Not issue for data in column "households" and data "Sub-total final consumption expenditure" that are correct and match with table 15.12.
  - Table 15.15: It would be useful to add a column "Export" after the Gross capital formation block as many countries have re-exports. Alternatively in paragraph 15.184 a sentence could be added to indicate that in the case of re-exports, a column "Exports" should be added after the Gross capital formation block.

Chapter 16: Labour

Italy

About the guidance on the relationship between the SNA and ICLS and the effort to present transparent comparisons between the two frameworks. We would appreciate a little more clarification in describing the main differences between the two frameworks. The table 16.2 presents a useful synthesis of the relationships between the different concepts, which should be explained more extensively in the text, not only with table footnotes.

Some definitions might be a little reviewed perhaps using the ICLS concepts as building blocks or references. We do not always find correspondence between the terminology used in the paragraphs and that of figure 16.3.

In item 16.17 Employees are defined as "persons who, by agreement, work for a resident institutional unit and receive remuneration for their labour." However, later in the text, it is explained that the category of Employees includes (part of) volunteers and unpaid trainees which by definition do not receive remuneration. We suggest to add a final item (i) in 16.18 " some volunteers (see item 16.32) and unpaid trainee workers although not remunerated ".

We would have liked the revision of the SNA to be an opportunity to align the labour input concepts and definitions with the ICLS standards. Also because the sources, especially supply-side, used to compile data will soon be aligned with ICSE standards and this could cause misclassifications as some terms have quite a different meaning in the two frameworks. For instance the concept of employees in the SNA fits much more the ICSE18 concept of "workers for pay" than that of "employees".

Japan

Figure 16.3 Labour market tables framework

This figure does not provide concrete formats for compiling the tables. Is it planned to provide such formats in other chapters or to develop more detailed compilation guidance for the tables?

What is the definition of "Employment subsidies" indicated in the Fig 16.3?

Paragragh 16.82

"hours sought but not worked" - How do you expect compilers to collect or estimate data on "Hours sought by unemployed" in the Fig 16.3? Is it expected to estimate this through multiplying the number of unemployed by average hours worked?

"all other general employee costs borne by the employers, such as training costs, use of recruitment services" - Do these include costs for own-account activities such as labour costs for on the job training?

"payroll taxes" - What is the definition of this term? Does it mean taxes on salary which are not included in the remuneration of employees?

UK Statistics Authority

Eurostat

Para 16.96: Add “index” to " such as the Tornqvist index,..."

OECD

16.73: It is not clear what is meant “annual (full-time) hours actually worked”. Does it mean “annual hours actually worked in full-time jobs”? It would be useful if this could be clarified.

16.97: The paragraph says “… but does not require more detailed data than that needed for the labour market tables framework”, but as paragraph 16.66 and 16.89 only refer to the possibility of including demographic characteristics such as education, etc., this may need to be nuanced a bit or placed in the right context.

Australia

ABS thinks there are inconsistencies, particularly in Para 16.9 and 16.10. These two paragraphs appear to confuse the labour statistics concepts of labour force, employed and unemployed with the broader concept of labour input within the SNA framework. These concepts should be separated. Suggest that Para 16.10 be changed to “For SNA purposes, the concept of labour input is somewhat broader than the employed definition in 16.9, as it also includes labour which is used as an input into the household production of goods for own final use, some types of volunteer work, as well as unpaid trainee work.”

Vietnam

Have a concerns about the definition of labour. In the SNA 2025 draft, the definition of “employment” includes activities for own use as specified under ICLS13. However, the Statistics Office of Vietnam has now adopted ICLS19 in labor force surveys, where “employment” does not include activities for own use. Therefore, it is recommended that the SNA 2025 considers conducting research to develop terminology that distinctly separates these two concepts.

Colombia

In Table 16.1, where is the type of worker related to volunteers working in a recognized institutional unit included? (paragraph 16.34)

Bank of Belgium

Relating to The figure 16.2 "Links between the SNA and the 19th and 20th ICLS resolutions", the link between the different types of workers and the categories of the 20th ICLS Resolution can be visually improved, mainly for the form of work 'Employment" of the 19th ICLS Resolution.

In the specific issues, we regret the lack of mention of the regional data.

Nepal

It will be better to classify the labour as per ICLS 21. There needs more elaboration with plenty of examples on dependent contractors which is new concept associated in ICLS21.

UK Statistics Authority

Bank of Thailand

Topic 2 Quality-adjusted labor input: it would be beneficial to provide a more detailed description of trade qualifications. Additionally, including examples of the quality-adjusted methodology applied to trade qualifications would be advantageous.

It would be greatly appreciated if best practices of compiling labor statistics could be provided, enabling compilers to engage in self-study.

Australia

Yes – the diagram explaining the labour market tables framework appears to have been sourced from the ABS Labour Accounts publication. If so, we would appreciate the diagram being referenced as being adapted from the Australian labour account (Labour Account Australia methodology, June 2024 | Australian Bureau of Statistics (abs.gov.au)). We consider that this diagram shows the relationships of the labour account quadrants and content, rather than describing a labour market tables framework. ABS will be updating this diagram shortly given underemployment definitional changes.

Chapter 17: Capital Services

Eurostat

Para 17.3: "…The assets concerned are any produced fixed assets (excluding natural capital), non-produced fixed assets (excluding natural capital), or natural capital assets which are used in an on-going basis on production." Referring to fixed assets here limits the scope of capital services, e.g. by excluding inventories. Para 4.295 includes inventories and NPNF assets in capital services. The two should be aligned in one direction or the other. The exact scope of capital services may be double checked also in paras 17.5, 17.8, 17.35.

Para 17.23: "By analogy, if the value of the capital services rendered by the asset in year **t=1** is b, Vt+1 = b/(1-df)." Should it be t+1 instead of t=1?

Para 17.29: "…when it is derived as a balancing item in the generation of earned income account?" "Earned" is missing.

Para 17.35: "…regarded as the repayment of **principle** from the element regarded as interest." Replace "principle" with "principal".

Para 17.41: If land is non-produced, wouldn't it be more correct to say that it cannot "deplete" instead of "depreciate"? This also regards para 17.43.

Para 17.45: see comment on paras 11.8, 11.191 etc. on the appropriateness of using "resource rent".

Italy

The recommendation of using geometric depreciation as the default option for calculating capital stocks and consumption of fixed capital is in contrast with what established by the European Task Force FIXCAP, which recommends to using a convex cohort depreciation function, in accordance with the 2009 OECD Manual Measuring Capital. 2025 SNA should emphasize using a convex cohort depreciation function (geometric depreciation or a combination of age-price and retirement profiles, depending on the availability of information, data and technical capacity).

Sweden

Chapter 17 should be moved further back in the SNA. The content of chapter 17 is not in line with the main principles of social accounting that should govern the SNA. This chapter belongs to the extended accounts part of SNA providing links between SNA and other theoretical perspectives.

OECD

17.47: The paragraph explains that "after allowing for all intermediate costs, labour and the capital services of all nonfinancial assets used in production including any rents paid on the use of non-produced non-financial assets, what is left must represent the resource rent of the natural resource", but this is not correct. The resource rent includes rents paid and provides a value of the unsplit asset. It is only in a subsequent step that we estimate how much the government appropriates of the resource rent (consisting mostly of rent payments) and split the asset.

17.48: This paragraph assumes that the regrowth is statistically observable, which discussion in the EG NC has shown that usually it is not. For that reason, we suggest to delete this.
17.81: This paragraph suggests that one applies a PIM to value mineral and energy resources, while one typically uses the NPV of resource rents where these rents are based on the residual value method. So, we suggest rephrasing.

17.41: Whereas there is no depreciation of land, it would be good to update the text to explain that land can be depleted.

17.45: It is explained that 'capital services' is another term for 'resource rent', but given the importance of measuring depletion, it would be important to already explain this much earlier on, also explaining that resource rent is split into a depletion element and an income element. Furthermore, it is referred to as a pitfall here, but that may not be very helpful.

17.59: It would be helpful to also point out that this recording satisfies the requirement that the sum of capital services rendered (1175) is equal to the depreciation (1160) plus income (15).

17.80: The last part of the last sentence (i.e., "which is the relevant variable for aggregation across different asset types") is a bit confusing. We suggest deleting it, also as aggregation is discussed later on.

Table 17.4: Replace the label "Consumption of fixed capital" within the table by "Depreciation".

17.69: We suggest to delete the first line, i.e., "Capital services is just one part of capital measurement in the SNA" as it does not add any guidance and it is disconnected from the rest of the paragraph.

17.85: We recommend removing the part that suggests that it may not be necessary to calculate the wealth stock in volume terms and that this should only be calculated if desired. Many countries have been producing wealth capital stocks by asset type and by industry in both current prices and volume terms for years. These data are also regularly collected by the OECD and Eurostat. In addition, these series of capital stocks in current prices and in volume terms have been used for the purposes of capital services measurement by different international organisations (e.g. EU KLEMS, Eurostat, LA KLEMS).

Germany FSO

17.47 "*...After allowing for all intermediate costs, labour and the capital services of all non-financial assets used in production including any rents paid on the use of non-produced non-financial assets, what is left must represent the resource rent of the natural resource...*". Not sure that we understand what "rents paid on the use of non-produced non-financial assets" are. Is it here meant "return to other non-produced asset, i.e. those excluding natural capital (i.e. return to AN.2 assets)?

As regards recommendation D.7 (para 63), guidance on the measurement of capital services for inventories has not been included. No clarifications added on "the rate of return, including clear and consistent guidance on the use of discount rates" (or not identified)

17.1 & 17.2 both mention Table on capital services. It might be useful to indicate here that this table is a part of the integrated framework.

Chapter 18: Measuring prices, volumes and productivity

Eurostat

Para 18.237: "[…]. In applying the deflated stocks approach, compilers should apply a general price index appropriate for the country and apply the previous year's margin between the effective interest rates and the reference rates to arrive at borrower implicit financial services and depositor implicit financial services in volume terms. […]". Let's assume that the reference rate and the price index are unchanged but the effective interest rate increases by 1%: this increase should be considered as a price change (in line with ESA 2010). With the original formulation, it would be a volume change. The ESA method rationale is that it is the margin, not the reference rate, which determines FISIM.

Paras 18.40 and 18.51: Correct reference needs to be included: chapter 8 of Quarterly National Accounts Manual (IMF, 2017).

Para 18.155: Correct references to included: "… described in Handbook on prices and volume measures in national accounts (Eurostat, 2016) and Towards measuring the volume of health and education and services (Organisation for Economic Co-operation and Development, 2009).”

Paras 18.180-18.183: the text has to be revised to take into account the results of the AEG consultation There are several issues here.

a) The availability of the estimates of physical stocks (18.180) may be true (in the EU) for certain assets (timber) while this is much more challenging for mineral and non-renewable energy resources.

b) Concerning the definition of depletion (18.181 and 18.182) as "decrease in stock" due to "extractions", this does not fit well with land: can we speak of “stock of land” and “extraction of land”?

c) The price of the natural resource in situ is applicable for some NR: timber and maybe mineral and non-renewable energy but not for others?

d) There is a probably confusion here (18.182 and 18.183) between the underlying object and the biological resources: for example it is said that "regeneration" (negative and positive) in cultivated natural resources yielding once-only product is to be recorded as depreciation and fixed capital formation, but this cannot be. Once the separation done between the underlying object and the biological resources, the "extractions of the biological resources" have to be recorded as changes in inventories, while the regeneration (negative and positive) of the underlying object (either forest land or agricultural land) cannot be recorded as depreciation/FCF, unless the underlying object is classified as "produced" (which sounds weird).

OECD

18.85: In the last sentence, please replace the reference to a more recent edition of the manual released in 2014.

18.183: It is stated that “in the case of cultivated natural resources yielding once-only products, the decrease in regenerative potential is recorded as depreciation, while an increase is recorded as fixed capital formation.” However, this is incorrect, i.e., it should read depletion and negative depletion. For repeat products it would be a correct description.

18.219: The text seems to imply that digital products only seem to include ‘assets that exist only in digital form and services that are supplied over a computer network’. It may be good to clarify that this may also include ICT (or digital) goods.

18.260: We would suggest to delete the reference to “the composition of capital input” in the last sentence. Capital services are constructed as the weighted average growth of capital stocks of different assets, using the share of the user costs of capital of each asset type in total user costs as weights. Therefore, capital services do account for the composition of capital.

UK Statistics Authority

18.262: It would be useful to also refer to the Törnqvist index. It is widely used by national statistics institutes and international organisations to compile aggregate measures of capital services and also referred to in the OECD Manual Measuring Capital (2009) (see p152).

18.263: In order to correct a mistake in the definition of multifactor productivity and to align with paragraph 18.264, we suggest replacing "… is that it includes effects not included in the labour and capital inputs" by "… is that it includes the combined effect of using labour and capital inputs".

18.264: Please delete the sentence "It is, however, an indicator of an industry's capacity to contribute to economy wide growth of income per unit of input". The sentence is disconnected from the rest of the text as it refers to how industry productivity relates to the total economy, while the whole paragraph is about the definition of capital-labour (value added based) MFP, independently of whether this is computed for one single industry or for the total economy.

Bank of Thailand

Para 18.25: presenting a graph of the Laspeyres and Paasche index gap would facilitate a clearer understanding of the comparison.

Topic 3 Chain indices: it would be useful to illustrate best practices and provide a detailed explanation as to why the "over the year technique" is seldom utilized. Additionally, including a sample of chain index calculations would clarify the methodology and assist compilers in practical application.

Chapter 19: Summarizing, integrating and balancing the accounts

Israel

The chapter Appears twice – once before 17 and after 18
19.5 should be table 19.1 not 17.1
19.22 In "because it requires quite different data sources and understanding of the data sources, this account is not always compiled by national accountants" the words "and understanding of the data sources" could be omitted. "Just as the national accountant must have an understanding of the balance of payments system and ensure that the transactions relating to the rest of the world are fully captured in the accounts, so there is a need to have an understanding of monetary and financial statistics" Could also be omitted. Seems a bit strange to assume that the missing items are not captured due to lack of understanding.

Singapore

Some of the terms used are not consistent with the terminology found in chapter 21. We suggest to review all chapters to ensure that the changes to specific terms have been incorporated, for instance, "expenditures" instead of "uses" and "revenues" instead of "resources".

The table referred to in paragraph 19.5 should be 19.1 instead of 17.1.

Colombia

Include example tables throughout the chapter: It is recommended that the example tables mentioned throughout the chapter be made visible. This will facilitate understanding and following the logic presented in the paragraphs describing the missing tables, improving the clarity of the content.

Discuss the need for information for accounts by institutional sector (paragraphs 19.6-19.22): It is suggested that paragraphs 19.6-19.22 include a discussion on the need or not to have information broken down for each account according to the different institutional sectors. This will allow a better understanding of the importance of sectoral data in the construction of national accounts.

Expand the discussion on the reconciliation between the financial account and the capital account (paragraphs 19.18-19.22): It is recommended that the discussion on the reconciliation of the financial account and the capital account be expanded, especially in relation to the lending capacity/need indicator. Specifically, it is suggested to address in more detail the treatment of discrepancies between these indicators, improving the procedures to eliminate discrepancies in accounts that are often prepared by different entities and sources.

Germany FSO

19.3 From the user and communication perspective and in line with para 21.80 in Ch21, this chapter should not use the expression “a table”, when describing “an account”, i.e. something, which has a balancing item.

For example, it is rather a right/left hand side of an account (although an account is presented in the Table No. x.x). Also, T-Accounts should not be preferably described as “tables”.

Chapter 20: Elaborating the Accounts

ISWGNA Editorial Team

Paragraphs 20.133-134 are not clear. The following edits will improve their clarity:

In 20.133, insert "decline in" before "real value of the principal" in the sentence that says: This means that nominal interest, under these circumstances, can include a compone nt which may be viewed as an anticipated reimbursement/refund of the real value of the principal of the financial liability/asset.

In 20.134, change "the element of compensation for inflation should not be considered as a return to capital by the lender and a current cost by the borrower. The SNA treats these components of explicit or implicit indexation" to "The compensation for inflation should not be considered a real return to capital by the lender and a real current cost by the borrower. However, the SNA treats these components reflecting explicit or implicit indexation ..."

Japan

20.27 As for the central bank's final consumption expenditure, since it is difficult to obtain sufficient data in the quarterly flash report, is it acceptable to publish it in aggregate with government final consumption expenditure, etc., instead of tabulating it independently ?

Colombia

It is suggested that discussion and/or recommendations be included on the integration of the System of Environmental and Economic Accounting (SEEA) with the regional accounts.

It is recommended that advanced predictive techniques be used to improve the accuracy of the quarterly accounts. This will help reduce possible misinterpretations due to the lower accuracy compared to the annual accounts. It is also important to ensure that there is coherence between the quarterly and annual accounts. This will allow a more precise and consistent interpretation of the economic data over time.

Regional data could be included in the economic analysis to obtain a more detailed and complete view. Regional differences in prices and wages, influenced by factors such as migration and labour supply, can have a significant impact on economic indicators.

UK Statistics Authority

UK STATISTICS AUTHORITY

National Statistician's Committee for Advice on Standards for Economic Statistics

NSCASE(25)02

2025 Draft SNA Chapters 27, 28, 30, 31, 32, 39

Advice Paper

Executive summary

1. The six 2025 SNA chapters – 27, 28, 30, 31, 32, 39 – are key chapters within the SNA 2025 and chapters that ONS consider crucial to have reviewed by NSCASE. There are significant updates to these chapters from SNA 2008, containing changes that have cross cutting affects across national accounts.

2. These chapters were published across 2023/24. The UK submitted comments on each of these chapters, as part of the UN's consultation exercise on the 13th of September 2024, the detail of which is provided under each of the chapter sections within this paper. Global consultation responses have also been included in an annex at the bottom. A summary of the main messages from the global responses can be found within in each chapter section as well.

3. ONS asks NSCASE Committee members to review the content of this paper. Members are also invited to identify any areas of concern to them which are not mentioned in this paper.

4. Specifically, the ONS would like the Committee's views on:
    a. **The chapters as a whole so feedback can be fed into the National Statisticians views to be taken to UNSC.**

    b. **Whether there are any areas in these Chapters where NSCASE would consider deviation from SNA2025/BPM7, if these matters were not addressed in the final draft SNA document.**

5. As with previous 2025 SNA/BPM 7 Chapters brought before the Committee, the official consultation deadline has passed and therefore the opportunity to feed back to the paper editors is not possible at this stage.

Introduction

6. The listed chapters cover the key concepts of Contracts, leases, licenses and permits (Chapter 27), Non-financial corporations (Chapter 28), General government and the Public sector (Chapter 30), Non-profit institutions (Chapter 31), Households (Chapter 32) and the Informal economy (Chapter 39).

UK Statistics Authority

7. Below ONS provides a brief background of the UK's approach and response to the SNA consultation process, and the role NSCASE's review of these chapters will play in assisting the National Statistician in implementing his two-stage approach to considering the adoption of the SNA.

Background

8. Following the close of the SNA consultation period, the UK wrote to the UN expressing concern over several aspects of the draft 2025 SNA manual.

9. Concerns included: Inconsistent definitions and content between chapters and lack of definitions in certain chapters. Significant repetition of content (e.g. Chapters 5 and 29 and Chapters 12 and 25), both throughout and between chapters of the SNA, which disrupts the flow of the document, which in turn results in guidance becoming potentially ineffective for compilers.

10. Not having sight of the SNA's annexes also made it difficult to consider the depth of some of the conceptual issues the SNA presents.

11. Within the SNA draft there are chapters and sections which relate to the sequence of economic accounts and others which refer to thematic / extended accounts and other auxiliary tables. The UK considered it beneficial to give greater clarity to which chapters fall into which sphere – the core or the periphery.

12. Specific issues and queries raised around chapter content was also submitted to the UN and can be found within each chapter section of this paper.

13. Based on these points, the UK noted that while some chapters can be readied for sign off at UNSC in 2025, others require substantive re-work to be ready to be finalised.

14. The UK detailed that the chapters causing the greatest concern and which needed re-drafting included: 1, 5, 12, 16, 18, 20, 21, 22, 31, 34 and 38.

15. And those chapters which required some re-drafting included 2, 4, 7, 11, 14, 25, 29 and 35.

16. Given limited time available to re-draft all these chapters the UK advocated to the UN of a broad two stage approach to the finalisation of the SNA 25 manual.

17. The UK proposed that, if the volume of re-work was impossible to deliver within the available remaining time (we expect the draft needs to be submitted around November 2024 for translation), the manual could be divided into two parts: Part One relating to the sequence of economic accounts and Part Two covering extensions beyond the sequence of economic accounts.

18. The UK proposed that Part One, would contain the following chapters: 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, and 19.

19. Part Two would comprise all other chapters, although the UK still recommends that chapters 20 and 21 be omitted from the SNA as being more

UK Statistics Authority

appropriately included in a separate manual or other supplementary standalone guidance.

20. Whilst the UK proposed a two-part solution to the SNA, in the case that the volume of comments overwhelmed the editorial team's ability to deliver to deadline, informal discussions with other countries suggest a desire to continue to move at best endeavours to complete the full draft for the UN Statistical Committee 2025. However, ONS continued to use the explicit prioritisation of the core sequence of accounts to guide which chapters to bring before the NSCASE committee and in what order.

ONS Considerations

21. To assist the National Statistician with information for the UNSC meeting NSCASE is requested to review the chapters which we have prioritised.

22. Prioritisation was done on the basis of the approach laid out above, as well as taking into account the number of changes in each chapter from the 2008 SNA, and the consultation response submitted to the UN.

23. ONS has identified parts of the SNA draft as those additions made to core SNA 2008 chapters that would have significant impact across the accounts.

24. Most of the impacting new content in the second half of the 2025 SNA can be found in chapters, 27, 28 , 30, 31 ,32 and 39. Assuming the committee remains comfortable with the sector accounts component of SNA 2008, review of the additional content in SNA 2025, will allow NSCASE committee members to offer advice to the National Statistician on the adoption of the sector accounts guidance laid out in the SNA 2025 manual. To aid this process we have outlined the major updates to SNA 2008, by chapter, section and paragraph in Annex A, along with the UK UN chapter consultation comments in Annex B.

ONS Concerns

25. ONS has raised several concerns regarding the drafting of these chapters, which are discussed in detail below. None of these concerns are believed to be substantial enough however, as to warrant a case for deviation from SNA 2025 guidance.

UK Statistics Authority

Annex A – SNA 2025 – Chapter updates by section and paragraph from SNA 2008

Chapter 27 – Contracts, leases, licenses and permits

Section	Sub-section	Paragraphs
B- Leases	Operating leases	27.5 (Definition of Operating lease)
	Finance leases	27.8 (Definition of Finance lease)
		27.10 (Implicit financial services on loans and deposits update)
		27.12 (Transfer of leased assets)
C. Rights to use a natural resource		27.16 (Conditions of use of a natural resource)
		27.17 (First use)
		27.18 (Second use)
		27.19 (Third use)
		27.20 (Difference in treatment of use)
		27.21 (a-f), (Criteria for distinguishing between use)
		27.22 (a-e) (Resource lease criteria)
		27.23 (Distinction between economic and legal ownership)
	Minerals and energy resources	27.28 (Sale of a lease)
		27.29 (Payments)
		27.30 (Legal ownership)
		27.31 (Generation of income)
	Timber Resources	27.32 (Timber resource distinction)
		27.33 (Payments made to legal owner)
		27.34 (Payment treatment)
	Fish	27.36 (Legal owner)
		27.37 (Fish stock management and ownership)
		27.38 (Accounting entries)
		27.39 (Fishing quotas)
		27.40 (Quota value and price)
		27.41 (Payments)
		27.42 (Quota markets)
		27.43 (Total value of fish stock)
D. Sharing Assets		27.58 (Sharing of natural resource rent)
		27.59 (Split asset approach)

4

UK Statistics Authority

		27.60 (Balance sheet changes)
	Permission to use the Environment as a sink	27.75 (Total emissions, permits))
		27.76 (cap and trade schemes)
		27.77 (Emission quota management)
		27.78 (Emission quota issues as a financial asset)
		27.79 (Emissions permits value)
		27.80 (Transparency Emission permit transactions)
		27.81 (Time of recording)
		27.82 & 3 (Numerical example)
		27.84 (Atmosphere)
		27.85 (Environment as a sink)

UK Comments

General

Overall, the chapter does a good job of working through natural ownership issues even if it is not comprehensive. It could make clear that often historic legal underpinnings for natural resources are complex and NSIs should consult experts to fully understand their own context.

It could be useful to reference the changes in treatment of natural resources in chapter 13.

Specific

27.16 The UK recommends re-wording to explain that the intention here is not to give an exhaustive list but to outline the most common and useful forms to discuss.
27.22 The UK questions whether this would be true in practice. The government cannot make use of that quota directly – does not sell it at market rates and the fisherman has a legal right to be offered the quota.

Highlighted global consultation comments – [Link to all comments]

Eurostat

Para 27.58: "The recording in these situations should follow the split asset approach as discussed above and in chapters 4 and 11." But it's not clear that Chapters 4 and 11 add anything to what is already in Chapter 27 – perhaps this reference should be removed?

The draft SNA does not seem to make clear that renewable energy resources can be subject to the split-asset approach. Chapter 27 explicitly mentions the approach for mineral and energy resources (non-renewable), timber and fish, but only addresses renewable energy resources in para 27.31, and is doesn't seem to mention the split-asset approach.

European Central Bank

The recommendations on emission permits (27.75 to 27.85) do not address the cases of multi-country trading schemes for those permits. The treatment of those schemes will have to be developed regionally (for instance in the European System of Accounts in Europe) consistently with the SNA. It would then be important that the SNA doesn´t close any door that might be needed to accommodate highly developed secondary markets. Therefore, it would be preferable that the wording is more open to the possibility of market valuation, including for permits allocated for free.

Netherlands

27.31 My interpretation of this guidance is that also rents on wind must be split if appropriate. This brings me to the following question. In the case of wind turbines on land, how should we make the necessary distinction between payments associated wit the use of land and those associated with the use of wind? Only the latter should be split, correct?

OECD

27.34: We have two concerns with this paragraph: 1) It would be useful to distinguish between transactions in standing timber (stumpage price) which constitutes the sale of an asset (in this case work-in-progress) and rights to harvest (which can be for several years and sometimes called stumpage fees, and which could lead to a split asset approach (for the underlying asset)). 2) it speaks bout rent from harvesting, but strictly speaking the benefits consists in the growth of trees, as this is the output recorded in the accounts.

Chapter 28 – Non-Financial Corporations

Section	Sub-section	Paragraphs
A- Introduction		28.1 (Role in the economy)
		28.2 (Issues common to Non-Financial and Financial corporations)
C. Subsectors		28.23 (Sub sectoring of Non-Financial Corporations)
		28.26 (Foreign and domestically controlled corporations)
D. Relations between corporations in	Foreign Direct Investment	28.31 (Evidence of direct investment relationship)

6

different economies		
	Multinational enterprises	28.44 (MNEs Group control)
		28.45 (MNEs Group control)
		28.47 (role of enterprise characteristics in the current account)
F. The consequences of financial distress	Debt Rescheduling	28.57 (recording repayments of debts)
	Links to International Financial Reporting Standards (IFRS)	28.59 (Relationship between SNA and IFRS)
		28.60.(SNA and IFRS Objectives)
		28.61 (SNA and IFRS reporting)
		28.69 (Particular differences between SNA and IFRS).

UK Comments

General
The UK is satisfied with this chapter with some minor comments.

Specific
The chapter goes straight into talking about demography without definitions of NFCs. The UK would encourage this inclusion.
There is useful information on births and deaths. The UK question whether this would be more of a register issue than core NA.
The UK encourages moving section C before section B as it deals with the definition point, the core NA point and refers to the relevant earlier chapter (5).
Section D3 doesn’t include much on how to record.
28.49, more guidance on transfer pricing would be helpful.
Section F doesn't seem to fit in the SNA. The recording of bad debts is already addressed in chapter 14 and may not need to be repeated here.

Highlighted global consultation comments – [Link to all comments]()

Israel

28.59 "There is a close relationship between the SNA and IFRS." Is that really true? The wording in SNA 2008 was perhaps better: "The principles underlying the IFRS are in most cases entirely consistent with the principles of the SNA."

Netherlands

28.18B could use further clarification. The first paragraph of 28.18 states ‘A merger implies that, as a result of the operation, only one entity will survive’. 28.18B reads as if a subsidiary is acquired *and both companies continue to exist* which looks more like FDI (paragraph 28.33).

Nepal

Can unincorporated households enterprise be classified into non-financial sector?

There exists country specific registration of enterprises for example registration of incorporated companies into office of company registrar and unincorporated household enterprises into local governments or designated government authorities. In such condition, criteria for inclusion in non-financial institutional units be clearly defined.

Joao Fonseca

Paragraph 28.63 - This paragraph refers to operating leases for lessees and operating leases with a term of more than 12 months in the context of IFRS. These statements are incorrect. According to IFRS 16, *Leases*, lessees no longer classify leases as either an operating lease or as a finance lease and the 12 months reference is related to recognition exemptions for lessees, not to operating leases for lessees. Therefore, our suggestion is to redraft the paragraph as follows in tracked changes:

Chapter 30 – General government and the public sector

Section	Sub-section	Paragraphs
B. Defining the general government and public sectors		30.12 (General government definition)
		30.22 (NPI as a government unit)
	Economically significant prices	30.25 (Test unit operates as a non-market producer)
	Suppliers of goods and services to government	30.31 (Provider of ancillary services)
	Special purpose units	30.52 (SPE borrowing)
	Trusts	30.60 (Definition and sector)
C The government finance presentation of statistics	Expense	30.72 (GFS pension liabilities presentation)
D. Accounting issues particular to the general government and public sectors	Government issued permits	30.88 (Ownership of certain goods)
		30.89 (Recording a sale of services)
		30.91 (Classification of payment)
	Tax credits	30.97 (Tax relief treatment)

UK Statistics Authority

	Debt reorganization	30.106 (Definition)
	Other issues related to debt re-organisation	30.124 (Loans with concessional rates)
	Government guarantees	30.129 (Treatment of called one-off guarantees)
	Dividend versus withdrawal of equity	30.137 (Treatment of earnings from equity investment)
	Bailouts	30.148 (Liabilities of a controlled public corporation)
	Public-private partnerships	30.156 (Definition)
		30.157 (Ownership of risk and reward)
		30.158 (PPP contracts)
		30.164 (End of the contract period)
		30.166 (Asset management – government as economic owner)
F. Links to International Public Sector Accounting Standards (ISPAS)		30.174 (IPSAS definition)
		30.175 (SNA and IPSAS objectives)
		30.176 (Different information presented)
		30.177 (Reporting entity)
		30.178 (Consolidation)
		30.179 (Recognition of assets)
		30.180 (Recognition of liabilities)
		30.181 (Valuation)
		30.182 (Revaluations and other changes in volume of assets)
		Table 30.1 Comparison of SNA and IPSAS

UK Comments

General

The UK is generally satisfied with this chapter and has minor comments.

Specific

Paragraph 12: Wording unclear. It seems to suggest that to be in GG conditions of control and economically significant prices must be present, which is wrong. Control must be present but not economically significant prices. Similarly, clarifying that condition of control & economically significant prices must be present to be a PC would be clearer than just specifying one condition.

Paragraph 30.31: in the second sentence there is no need to say not a market producer if ancillary, overly prescriptive, given this is not a binding condition. The point here isn't that the entity is providing ancillary services, but that it's not an institutional unit.

Highlighted global consultation comments – Link to all comments

Eurostat

In general, it is disappointing that it was not possible to integrate improvements implemented in ESA 2010, the Eurostat manual on government deficit and debt and the GFSM2014 to this chapter. Therefore, a key goal of the SNA update - consistency among international macroeconomic statistics manuals - seems to be missed. Given increased focus on sector accounts, and the need of - at least European users - to have an integrated or at least consistent fiscal and macroeconomic analysis framework, it is regrettable that the 2nd draft of the chapter still does not manage to describe the SNA transactions relevant for general government and continues to use a mixture of GFSM and SNA (old and new) terminology. De facto, very little guidance is provided for compilers of S.13 accounts in SNA framework.

Italy

30.136: It would be useful to clarify the type of asset to which reference is made (even with some examples) and to introduce a specific treatment for asset sales carried out by units within their core business (for example financial units)

Germany FSO

General comment - To depict public sector is not a priority for Germany. The implementation would be very resource intensive. In addition, to distinguish with and without consolidation is not implementable in practice as the public accounts are not granular enough for instance to draw all the flows between the different types of public units. Moreover, administrative data are not suited for this purpose as in budgetary law there is quite a flexibility within the resource categories.

Chapter 31 – Non profit institutions

Section	Sub-section	Paragraphs
A. Introduction	A thematic account on NPIs and other social economy institutions	31.12 (Visibility into the importance of NPIs in the economy)
B. The units included in the thematic account on non-profit and		31.13 (Analytical questions related to NPIs)

UK Statistics Authority

related social economy institutions		
	Characteristics of the units included in the thematic account on non-profit and related social economy institutions	31.16 (The "third" sector)
	Borderline cases	31.19 (Distribution of profits)
	Classification of NPIs	Table 23.1 : ICNP/TSO Sections

UK Comments

General

The UK recommend that this chapter is joined with the thematic accounts chapter. It seems to not merit a standalone chapter.

Highlighted global consultation comments – Link to all comments

Saudi Arabia

More exploration should be added for Islamic countries and how to treat data of those sorts.

Chapter 32 – Households

Section	Sub-section	Paragraphs
B. Household composition and measurement	Residence	32.15 (Residence)
	Household surveys	32.29 (Alignment of data)
C. Subsectoring households	The production perspective	32.33 (Productive activity)
	The consumption perspective	32.38 (Household income proxy)
D. Households as producers	Housing	32.55 (Major repairs)
	Unpaid household service work	32.64 (Production boundary)
F. Household income		32.71 (Income and consumption allocation)
G Household wealth and	Family trusts	32.78 (Trusts)

UK Statistics Authority

associated income flows		
		32.79 (Trusts cont)
	Consumer durables	32.85 (Consumer durables)
H. Distributional accounts for household income, consumption and wealth	Introduction	32.88 (Accounting entries)
		32.89 (Motivation)
		32.90 (Granular subsectors)
		32.91 (Distributional results)
	Establishing the focus of measurement	32.92 (Institutional households)
		32.93 (Institutional households cont)
		32.94 (Household size and composition)
		32.95 (Estimating income and consumption)
		32.96 (Sequence of distributional accounts)
		32.97 (Alternative income concepts)
		32.98 (Groupings)
		32.99 (Deciles)
		32.100 (Permanent income)
		32.101 (Compilation)
	Compiling distributional accounts for households	32.102 (Compiling distributional accounts)
		32.103 (Main steps)
		32.104 (Accounting issues)
		32.105 (Aggregates)
		32.106 (Micro data sources)
		32.107 (Coherence)
		32.108 (Household groups)
		32.109 (Equivalence scales)
		32.110 (Value of consumption units)
		32.111 (Underlying factors)
		32.112 (Wealth)

UK Comments

General

The UK is satisfied with this chapter. Sections on distributional accounts for households are very clear and in line with expectations. The UK is pleased to see reference to *Handbook of Distributional National Accounts (OECD, 2023).* This cross-referencing to specific guidance is a step the UK have encouraged in other chapters.

UK Statistics Authority

Specific

Para 32.64. It is unclear whether this is referring to the unpaid household work thematic account or suggesting an extension of the production boundary in the sequence of economic accounts. Drafting needs clarifying.
Para 32.102 - Whilst the reference to the OECD guidance is helpful, it would be good if the National Time Transfer Accounts could also be accommodated.

Highlighted global consultation comments – [Link to all comments]

OECD

32.85: Information on consumer durables would also be very relevant for a thematic account on unpaid household services

Jennifer Ribarsky, IMF

32.100 Other household groupings that may be considered include those based on levels of permanent income, main source of income the age of the reference person and the composition of households. Section C and Chapter 34 provide additional discussion on the subsectoring of households and the range of characteristics of households and household members that can be considered in distributional accounting and analysis.

European Central Bank

32.103 If step 1. implies to remove all institutional households from the analysis without grossing-up the results to the entire household sector in a later step, the link between distributional accounts and macro results for the household sector is lost (as institutional households are not separated in aggregate national account results). This major caveat of the method and deviation from the objectives mentioned in para 32.91 should be spelled out.

Netherlands

32.92 states '*As a consequence, they behave differently and the data about their income, consumption and wealth is not readily comparable with those of private households.*' However distributional national accounts are constructed because not every household behaves the same, so this should be a reason to include them, more than a reason to exclude them. Also rephrase the part that data on income and wealth is not readily available, to might not be readily available, in the Netherlands we do have this information. And lastly please explain why modelling and assumptions are valid, and in case of the very rich recommended, approaches to create distributional accounts, but not on this matter?

Germany FSO

D. Household as producers - Household electricity production should be mentioned here, as well as user-generated content on digital platforms produced by households fulfilling the criteria of assets (IPPs) to clarify the treatment.

Chapter 39 – Informal Economy

Section	Sub-section	Paragraphs
B. Framework for the informal economy	Enterprise	39.15 (Absence of accounts for all household activities)
E. Capital measurement	Formal sector, informal sector and household own-use production and community sector	39.32 (household own-use production and community sector)

UK comments

General

The UK are satisfied with this chapter.

Highlighted global consultation comments – Link to all comments

Argentina

We believe that it would be highly relevant to expand the treatment of the Non Observed economy (NOE) in this chapter. The different aspects included in the NOE are essential to ensure exhaustiveness. It would also be convenient to include the different typologies of Non-Observed Activities discussed in OECD (2002) and their definitions. We suggest including “Table 3.1 Classification of non-observed activities by type of activity, cause and unit” from OECD (2002) including the typologies (T8) aggregated by Eurostat. In the case of illegal activities, reference could be made to what is included in Chapter 7.

Nepal

Similarly, the main data sources of informal sector and informal employment are for example economic census and labour force surveys respectively. Some briefing on standard methodology and scope of conducting economic census if described briefly, it will be useful to many NSOs for conducting economic census consistently. As conducting population and housing census, UNSD often develops the recommendation manuals but for conducting economic census, there does not exists standard recommendation manuals till now. Emphasis should be given for conducting economic census if there is prevalent of informal economy.

Colombia

39.5 In the case of cross-border flows, it must be ensured that external sector statistics establish measurements of the informal economy and its reconciliation with national accounts, for both informal trade of goods and services, as well as employment, remittances, the tourism sector, undeclared trade, and transfers

Annex B - Global consultation comments

Chapter 27: Contracts; leases, licences and permits

Eurostat

There is potential to mention Data in section D – Sharing assets, possibly in para 27.56 which discusses the case where participating units are resident in difference economies.

Should section A be renamed "Chapter overview", as in chapter 1? It would be useful to ensure consistency across chapters.

Para 27.29: "The full natural resource rent can be estimated […] including services related to the capital used in production, but excluding the depletion (for more details, see the annex to chapter 4)." Add the bit in red for consistency with para 4.317, which sets out the calculation of resource rent, from output, and states in the final step that "resource rent (=depletion plus return to natural resources)".

Para 27.58: "The recording in these situations should follow the split asset approach as discussed above and in chapters 4 and 11." But it's not clear that Chapters 4 and 11 add anything to what is already in Chapter 27 – perhaps this reference should be removed?

The draft SNA does not seem to make clear that renewable energy resources can be subject to the split-asset approach. Chapter 27 explicitly mentions the approach for mineral and energy resources (non-renewable), timber and fish, but only addresses renewable energy resources in para 27.31, and is doesn't seem to mention the split-asset approach.

Definition and scope of resource rent

The difference between rent and resource rent needs to be explained more clearly. The terms are included in the SNA Glossary:

Rent – Income receivable by the owner of a non-produced non-financial assets (the lessor or landlord) for putting the assets at the disposal of another institutional unit (a lessee or tenant) for use in production.

Economic rent. Resource rent – Surplus value accruing to the extractor of a natural resources, or a user of an asset more generally, calculated after all intermediate costs, labour costs and the costs of fixed capital used have been taken into account.

So resource rent is defined as the surplus accruing to the extractor.

But this is inconsistent with 27.59 -60 and Table 27.1 where the term is used in several ways – to refer to the total income flowing to both extractor and owner, to the flow from the extractor to owner, and to the amount appropriated by the extractor, ie the surplus. In fact the term resource rent is used in all three ways throughout the draft SNA

There is a general lack of clarity around the accounting relationship between the rent paid by the extractor to the owner, the resource rent earned by the extractor and the split of the resource rent between owner and extractor in the split-asset approach. In particular para 4.317 appears to be inconsistent with paras 27.59-60 and Table 27.1. We understand paras 27.59-60 and Table 27.1 to be illustrating that:

Total resource rent (45) = rent paid to owner (30) + surplus resource rent appropriated by extractor (15).
Which appears consistent with 27.59 – "Rent on natural resources of 30 is paid to the government as recorded in the distribution of income account and this is all considered depletion …"
But we also note that total depletion is 45 in Table 27.1, and not 30, and is split between government (30) and extractor (15). It looks as if total depletion is calculated as being equal to resource rent.
If this is the case then it appears inconsistent with 4.317 which ends with:
resource rent = depletion + return to natural resource.
Which means that if resource rent is equal to depletion then the return to the natural resource is zero.
Para 17.47 is also inconsistent with 4.317 in that it suggests that resource rent is the residual after the payment of rents on non-produced non-financial assets. This may be true from the extractor's perspective but this is not made clear.
We also note the discussion in WS.14 around the historical (and current) lack of clarity or agreement about the term "resource rent" (below). The redrafted SNA needs careful review to ensure that these inconsistencies do not persist.
WS.14 para 37. Statistical manuals used to compile government finance statistics or national accounts assimilate resource rent to rent (2008 SNA, para. 7.154; GFSM 2014, para. 5.125; and ESA 2010 para. 4.72). It appears clear that resource rent in all these manuals is the income receivable by the owner of the natural resources (the lessor or landlord), from the lessee, for putting the natural resources at the disposal of the lessee. While BPM6 does not reference resource rent, it does define rent in the same way as the other statistical manuals (para. 5.60b).
Para 38: In contrast to this, the OECD glossary of statistical terms defines resource rent somewhat differently as: "The economic rent of a natural resource equals the value of capital services flows rendered by the natural resources, or their share in the gross operating surplus; its value is given by the value of extraction. Resource rent may be divided between depletion and return to natural capital." Thus, economic rent is here defined by reference to the profit of the lessee (rather than to the amounts payable to the lessor), although with reference to "their share" in the gross operating surplus. It is not fully clear whether the lessor's share in the gross operating surplus, after remuneration of all other factors of production, would equal the amounts payable to the lessor under the terms of the resource lease. The System of Environmental-Economic Account Central Framework (SEEA-CF) goes however further by showing how resource rents can be derived from SNA aggregates. Under the SEEA-CF, resource rents are also known as economic rent: "the surplus value accruing to the extractor or user of an asset calculated after all costs and normal returns have been taken into account". Table 5.5. of the SEEA-CF shows how resource rent can be derived, in particular, it notes that it is necessary to take into account the effects of any specific taxes and subsidies that relate to the extraction activity.
Other terminology
The term "natural resource rent" is used throughout Chapter 27 but only once elsewhere, in Chapter 2, para 2.70. This seems inconsistent – stick to either

resource rent or natural resource rent. This comment is analogous to the point about "natural resources leases" above".
2.70 – " … both the SEEA and the SNA incorporate measures of environmental assets including the value of natural resources, the changes in value and volume of these resources (including through discovery, depletion or catastrophic loss) and associated income streams (including flows of natural resource rent). …"
27.29 –"Most commonly, mineral and energy resources remain in the legal ownership of general government, with users extracting mineral or energy resources under an agreement where the payments made each year are dependent on the amount extracted. The payments (sometimes described as royalties) are recorded as rent. The full natural resource rent can be estimated using the residual value method …"
The term "rent on natural resources" – very similar to "natural resource rent" is also used, albeit only twice.
27.59 – "Rent on natural resources of 30 is paid to the government as recorded in the distribution of income account and this is all considered depletion …"
This seems like a typo as it refers to the worked example in Table 27.1, where Natural resource rent has a value of 30.
33.40 – "Rent relates to the income receivable by the owner of a non-produced non-financial asset … An example where rent on natural resources may be recorded in the international accounts may be short-term fishing rights in territorial waters provided to foreign fishing fleets …"
The Glossary includes the following: "Natural resource leases – Contractual agreement whereby the legal owner of a natural resource makes it available to a lessee in return for a regular payment recorded as rent."
But the term "natural resource lease" is only used once in the draft SNA, in Table 21.9. Whereas the 2008 term "resource lease" is still used throughout. Should the SNA be updated in line with the Glossary, or the Glossary corrected?

European Central Bank

The recommendations on emission permits (27.75 to 27.85) do not address the cases of multi-country trading schemes for those permits. The treatment of those schemes will have to be developed regionally (for instance in the European System of Accounts in Europe) consistently with the SNA. It would then be important that the SNA doesn´t close any door that might be needed to accommodate highly developed secondary markets. Therefore, it would be preferable that the wording is more open to the possibility of market valuation, including for permits allocated for free.

Netherlands

27.12 I find this confusing language, it suggests a claim has been progressively built up. As I understand, this is not the case. A suggestion: "…extinguishing the financial claim progressively over the leasing period".
27.15 In reality the resource exploitation arrangements between government and extractor may be more complex depending on other factors than income streams

alone. For example, is it still allowed to apply a split of assets when the government is the entity determining production volumes from on year to another?
27.27 This anomaly has already been picked up by others: land cannot be subject to capital formation.
27.31 My interpretation of this guidance is that also rents on wind must be split if appropriate. This brings me to the following question. In the case of wind turbines on land, how should we make the necessary distinction between payments associated wit the use of land and those associated with the use of wind? Only the latter should be split, correct?
27.60 Particularly in oil and gas mining, the event of a government giving up a natural resource will not often occur. It takes several years of mineral exploration before production starts. Mineral exploration is an expensive activity. This implies a pre-arrangement of sharing expected benefits between extractor and government has already been settled prior the coming into being of an asset in a balance sheet. And when it does, it will probably emerge simultaneously and proportionately (based on income share arrangements) in the balance sheets of government and mining corporation. Under such a scenario there is no giving away of public property. It would be worthwhile putting in the 2025 SNA the ocurrence of such capital transfers in the right context.
27.79 Under the EU ETS, shares of freely provided emission permits are still substantive. In this way businesses in manufacturing industry are granted a transition period in which to adapt to carbon pricing. The 2025 SNA may argue that freely provided permits have zero value. But that is beyond reality. The reality is they do have a market value. And for that reason it is difficult to imagine the 2025 SNA recommends to simply ignore the underlying transaction of such transfers in kind. If a permit with a positive market is provided for free by a government to a corporation, this event constitutes in fact a capital transfer. If the intention of the 2025 SNA is to ignore such transfers, the reasons behind such choice should at least be motivated and explained explicitly. Sorry, but I cannot resist to mention that from a carbon tax analysis point of view, the 2025 SNA guidance on pollution permits is second-best.

OECD

Throughout the chapter, at least six terms are used, i.e., contract, lease, license, right, permit, permission, that seem similar in meaning, but used in different situations. It would be helpful to use fewer terms if possible and to clearly define them and to clarify any differences.
27.16: This paragraph introduces three options. It would be useful to refer back to these options later on in the text to provide full clarity what needs to be recorded in what situation. This is sometimes not fully clear from the text, for example in relation to land (see comment in paragraph 27.26) and radio spectra (see comment in paragraphs 27.51 and 27.52). It may also be helpful to include a decision tree to guide readers in how to arrive at the correct recording.
27.26: It is not fully clear how to interpret this text in relation to the three options specified in 27.16, i.e., does it also apply to the third option in which the asset is split

between the user and the legal owner? Or does it only refer to the first option where the legal owner may permit the resource to be used to extinction?
27.31: It is unclear how to interpret ‘permissions’ in the text “payments associated with permissions treated as payments for land”. There may be a permission to construct a wind turbine somewhere, which seems different from regular payments to the owner of land for using the land (with the latter being rent payments).
27.32: We suggest deleting the first sentence as it looks confusing and inconsistent with the remainder. In that regard, timber resources consist only of work-in-progress, whereas the expected harvests relate to the underlying asset.
27.34: We have two concerns with this paragraph: 1) It would be useful to distinguish between transactions in standing timber (stumpage price) which constitutes the sale of an asset (in this case work-in-progress) and rights to harvest (which can be for several years and sometimes called stumpage fees, and which could lead to a split asset approach (for the underlying asset)). 2) it speaks bout rent from harvesting, but strictly speaking the benefits consists in the growth of trees, as this is the output recorded in the accounts.
27.50: The text could be made clearer by rephrasing that “only when the licence is granted indefinitely, the payment is recorded as the sale of the spectrum”.
27.51: This paragraph introduces the term ‘permit’. It may be useful to explain this term, also in relation to other types of leases, licences and contracts. Furthermore, it is not clear how to interpret the text in relation to the three options laid out in paragraph 27.16, i.e., it is referring to the sale of an asset, but only explicitly mentions the sale of a permit. However, would it possibly also lead to the creation of an asset related to the (use of the) radio spectrum, in view of the split asset approach as referred to in 27.16. This may need to be clarified.
27.52: Does this refer to any situation where a licence is recognized (so also under 27.51)?
27.55: It may need to be specified what type of asset is referred to when speaking about “such that a sale of an asset is recorded” as this seems to be a different type of asset that is referred to when speaking about “then a separate asset, described as a permit to use a natural resource, is established”. And it is not clear how this text relates to the three options presented in 27.16, as in case of the first option there is just an outright sale of the asset itself and no creation of a licence or did we misunderstand?
27.59 and 27.60: Some further explanation could be added how the depletion costs are obtained. It may also be considered to just focus on explaining the splitting of ownership, assuming no depletion?
27.81: Please specify what n refers to in ‘year t+n’.
27.84: It would be good to reiterate that the atmosphere is not considered an asset in the SNA, and hence that we are treating emission permits here as permission to undertake an activity, instead of a right to use a natural resource. In that regard, it would also be better to refer to “permissions to generate air emissions” instead of “permissions to use the environment as a sink”, particularly also as the use of the word sink goes against SEEA.
27.95: Reference is made to the fact that these assets should only be recorded ”when the lessee does actually exercise their right to realize the price difference”.

Why do we not simply call them ‘marketed operating leases’ in that case? ‘Marketable’ clearly implies a potential, not necessarily an actual use.
According to Chapter 21, ‘financial lease’ will be replaced by ‘finance lease’ in the 2025 SNA. However, the term ‘financial lease’ is still used many times throughout the draft. You may want to check and replace these.
27.44: It would be logical to treat depletion due to illegal fishing as depletion and not as OCV, as it does not matter for the production boundary whether an activity is legal or illegal.
It would be good if “natural resource rent” could be changed into “resource rent”; we also speak about ‘resource lease’ and not about ‘natural resource lease’.
27.30: Reference is made to “future capital services”, but ‘future’ can be deleted from this as resource rent only reflects the current accounting period.

Germany FSO

27.5-27.7 Please explain whether operating lease applies to produced (cultivated) natural resources, as the definition of the operating lease refers to “the use of produced non-financial asset”. See also our comment below.
27.15 to 27.24 As mentioned already above (under the operating lease), please clarify the treatment of produced natural resources under lease arrangements, e.g. whether operating lease applies to them or not. This is especially important in the context of timber resources discussed in paras 27.32-27.35.
27.19 The third option – there is no creation of an asset, but the split of total value of a natural resource between two parties. This option 3 (involving split asset approach) refers to "natural resources", thus the concept could be theoretically applicable to all natural resources, i.e. also to (some types of) land. If the conditions mention in option 3 apply to land - one can calculate resource rent for land and then compare it with rent and in case of differences a split asset approach could follow. Is that right? Please clarify.
27.30 If the split asset approach is applicable also to renewable energy resources, which asset is supposed to be split here, only a renewable energy resource or also land? (also, the rents must be split accordingly)
27.29 says: “…Natural resource rent paid on rights to use mineral and energy resources should be split between amount paid in relation to non-renewable mineral and energy resources and renewable energy resources. Where possible, the rent paid on specific high revenue generating resources (e.g. copper, oil) should be recorded separately”.
These sentences are not clear. “Resource rent” is never paid (unobservable), what is paid is rent (D.45). Theoretically, the rents (D.45) paid on non-renewable mineral and energy resources should be always separately identified by type of these resources (i.e. separately for oil + gas, coal, …), otherwise it would not be possible to perform the split of a natural resource, for which rent is one of the inputs (to be deducted from the resource rent) to determine the shares of government and extractor. The same applies to renewable energy resources, i.e. rents and resources rents should be estimated for each resource in the asset classification.

27.32 It should be clarified how “timber resources” are defined, i.e., if it is a composite asset (inventories and land); or timber resources are just inventories, while there is then yet another asset - (forest) land.
Then the first sentence of para 27.32 says: “Timber resources are a type of biological resource that are valued in terms of the expected harvesting of timber”, while the last sentence is: “… the value of forest and other land incorporates the value of future benefits from the harvesting of timber”.
Please clarify, we are not sure what is the difference.
27.34 In this para a split asset approach is suggested: “…Where the natural resource rent from harvesting timber is greater than the payments of rent, the total value of the timber resources and the forest land should be partitioned following the split-asset approach”.
First, “the total value of the timber resources and the forest land” (here presented presumably as a composite asset?) must be divided and classified partly under land and partly under inventories. Second, which asset is supposed to be split between legal owner and extractor? Please clarify.
27.38 As regards split asset approach for fish stocks, no underlying asset is mentioned in contrary to Ch13, para 13.21 (on natural growth of uncultivated biological resources), which says: “The value of these biological resources may consist of two elements: the natural growth of fish itself, and the value of the underlying asset (i.e., the geographical area through which the fish migrates). In the latter case, the value is often encapsulated in the value of the quota put in place…”. Therefore, it should be better explained what is meant to be split here, as it is not obvious.
27.55 Please elaborate more on permits to use natural resources to be classified as contracts, leases and licences. This para refers to criteria in section C (but there are many), so it would be useful to refer to concreate ones.
In addition, do we understand well that this treatment is now restricted to cases of land and radio spectra? Please clarify why fish and timber were excluded.
Finally, please check the current version of the Glossary for 2025 SNA for permits to use natural resources as follows: “Third-party property rights relating to natural resources, which are transferable. An example is where a person holds a fishing quota and they are able, both legally and practically, to sell this to another person, SNA code AN.212”.

Rights to use a natural resource - General comment: the difference between “rent (D.45)” and “(natural) resource rent” (capital services of a natural resource = depletion + net return to natural resource) should be recalled, as these are key elements in discussion on rights to use a natural resource.
27.22 (d) “underlying asset” in this context should be replaced by “natural resource”.
27.29 - 27.31 The text in these paragraphs should be split in 2 parts: 1. Non-renewable mineral and energy resources and 2. Renewable energy resources, as it is difficult to understand what is described here, i.e., what the common features for both are and what applies just to one of them.

27.31 For renewable energy resources the last sentence says: "…The treatment of any payments associated with the permissions will be the same as for payments for the use of land".
What does that mean exactly? Land is usually under resource lease, i.e. rents to be recorded, or what is to be considered here? Please clarify.
27.36 In the first paragraph it should be mentioned that the following text covers primarily uncultivated biological (animal) resources yielding once-only products like fish in open seas, so to make it clear where it belongs in the asset classification.
Table 27.1
- In the table should be "rent (D.45)" paid by extractor and received by government and not "natural resource rent".
- "degradation" should be deleted from the whole Table 27.1, as it is a complex concept not elaborated in this version of the SNA.
- Depletion/degradation should be deleted from OCV of assets and liabilities account (even though is zero), as it might be confusing.

Singapore

Some of the terms used are not consistent with the terminology found in chapter 21. We suggest to review all chapters to ensure that the changes to specific terms have been incorporated, for instance, "finance lease" instead of "financial lease" in paragraphs 27.3, 27.8, 27.9, 27.10, 27.11, 27.13, 27.23, 27.54, 27.73, 27.93.

Israel

27.8 – 27.14 The heading is changed to finance leases, should it not be changed in the paragraphs too?

Chapter 28 Non-Financial Corporations

Israel

The title has been changed to "Non-financial corporations". But the chapter still is mostly about corporations in general. It also says in 28.2 : "This chapter discusses aspects particular to corporations, many of which are common to both the financial and non-financial corporation sectors." Perhaps it would be useful to have one chapter called "Corporations" with subheadings as needed for non-financial and financial corporations instead of two chapters.

28.59 "There is a close relationship between the SNA and IFRS." Is that really true? The wording in SNA 2008 was perhaps better: "The principles underlying the IFRS are in most cases entirely consistent with the principles of the SNA."
28.60 The objective of SNA should also be written in this paragraph as it is in the table: "Allow users of macro-economic statistics to monitor and analyze the performance of the economy."

UK Statistics Authority

Netherlands

28.18B could use further clarification. The first paragraph of 28.18 states 'A merger implies that, as a result of the operation, only one entity will survive'. 28.18B reads as if a subsidiary is acquired *and both companies continue to exist* which looks more like FDI (paragraph 28.33).

Nepal

Can unincorporated households enterprise be classified into non-financial sector? There exists country specific registration of enterprises for example registration of incorporated companies into office of company registrar and unincorporated household enterprises into local governments or designated government authorities. In such condition, criteria for inclusion in non-financial institutional units be clearly defined.

Joao Fonseca

Paragraph 28.63 - This paragraph refers to operating leases for lessees and operating leases with a term of more than 12 months in the context of IFRS. These statements are incorrect. According to IFRS 16, *Leases*, lessees no longer classify leases as either an operating lease or as a finance lease and the 12 months reference is related to recognition exemptions for lessees, not to operating leases for lessees. Therefore, our suggestion is to redraft the paragraph as follows in tracked changes:

"Three particular areas where the IFRS adopts approaches somewhat different from the SNA are in the area of the recognition of holding gains and losses as income, in the recording of provisions and contingent liabilities, and in recording ~~operating~~ leases differently ~~for~~ between lessees and lessors ~~(where the IFRS has a treatment that is inconsistent between lessors and lessees)~~. As discussed in paragraph 14.114, certain types of provisions should be recorded as supplementary items in SNA balance sheets. ~~For operating leases with a term of more than 12 months, the IFRS requires the lessee to recognize an asset and associated liabilities, even though those assets and liabilities are also recognized by the lessor.~~ Under IFRS, lessees adopt a right-of-use model where they recognize a right-of-use asset and a lease liability, except for short-term leases (leases for 12 months or less) and leases of low value assets, and lessors adopt the risks and rewards incidental to ownership model where they classify each of its leases as either an operating lease or a finance lease. The SNA treatment of ~~operating~~ leases is based on the concept of economic ownership ~~and treats operating leases, regardless of duration, as not involving a change of economic ownership (see section B of chapter 27)~~ for both lessees and lessors, and both classify each of its leases as either an operating lease or a finance lease."

Paragraph 28.64 – The *Preface to International Public Sector Accounting Standards* refers to "public sector entities" the entities to which IPSAS are designed to. Therefore, our suggestion is to redraft the paragraph as follows in tracked changes:

"In addition to the IFRS for private corporations, the International Public Sector Accounting Standards (IPSAS) perform a similar function for ~~government bodies~~ public sector entities. There is a discussion of the IPSAS in chapter 30."

UK Statistics Authority

Chapter 30 General government and the public sector

Eurostat

[In reply to UK comment] The paragraph 30.31 should indeed be clear on that the classification should be in general government on the basis of it not being an institutional unit.

Figure 30.2 is not readable and it is therefore not possible to comment it.

Comments below support answers under questions 1-4, a number of comments were previously supplied in the comments on the initial version of the chapter.

In general, it is disappointing that it was not possible to integrate improvements implemented in ESA 2010, the Eurostat manual on government deficit and debt and the GFSM2014 to this chapter. Therefore, a key goal of the SNA update - consistency among international macroeconomic statistics manuals - seems to be missed. Given increased focus on sector accounts, and the need of - at least European users - to have an integrated or at least consistent fiscal and macroeconomic analysis framework, it is regrettable that the 2nd draft of the chapter still does not manage to describe the SNA transactions relevant for general government and continues to use a mixture of GFSM and SNA (old and new) terminology. De facto, very little guidance is provided for compilers of S.13 accounts in SNA framework.

Figure 30.2 is not readable and it is therefore not possible to comment it. **Figure 30.1** is not present and therefore it is not possible to comment on it.

30.1 1/ After put in practice, please add "for the presentation of the general government sector". 2/ the external debt guide is likely the least relevant and might be dropped in favour of the public sector debt guide. 3/ In addition to the Manual on Government Deficit and Debt, which provides for an application of ESA, the ESA should be referenced. The ESA provides for the European GFS presentation in chapter 20, providing for a rearranging of the sequence of accounts presentation without losing consistency with the former.

30.5 The paragraph is misleading, a public entity continuously operating at a loss should be part of the general government sector.

30.13: references seem incorrect. Moreover, the discussion on economically significant prices neither follows in the currently referenced paragraphs in chapter 5 nor in chapter 30 in the following paragraphs, please reference 30.26 and following.

30.14b

1/ outlays should be defined, or used as outlays/expenditure similar to paragraph 30.73. Moreover, in **part C, section 4 and paragraph 30.73**, the terminology is now completely confusing. Presumably "expenditure" in the old meaning is meant, not expenditure replacing "uses". This example illustrates perfectly the confusion caused by mixing a description of the GFSM presentation and using a term already in use for general government. This creates such mistakes.

2/ the first bullet corrects the error in relation to public health, thanks for this. A reference to the paragraphs on individual and collective consumption will be helpful here, nonetheless.

3/ expenditure can be financed "by the sale of assets" is still missing.

30.16 Suggestion to introduce the concept of 'core government' as we do in ESA 2010 paragraph 20.08-20.09. This is also needed to break to circular reference that a government unit is defined as being controlled by another government unit (and non-market).

30.20 4th line "or activities" should be added after "transactions" as some of the financial 'activities' as defined in ISIC are not activities in the traditional sense. This is explained in the new NACE manual Introductory Guidelines paragraph 14 copied below:

An activity as defined here may consist of one simple process (for example weaving) but may also cover a whole range of sub processes, each mentioned in different categories of the classification (for example, the manufacturing of a car consists of specific activities such as casting, forging, welding, assembling, painting, etc.). If the production process is organised as an integrated series of elementary activities within the same statistical unit, the whole combination is regarded as one activity. The exemption to this definition of economic activity discussed in the previous paragraphs is the classification of 64.2 "Activities of holding companies" and 64.3 "Activities of trust, funds and similar financial entities" that have none of the above characteristics and are solely present in the classification for assisting attribution of NACE codes to units (not activities) in the business register as prescribed in Council Regulation (EEC) No 2186/93 .

30.25 should not be added. The second sentence is misleading as 30.26 is not the only criterion for classification, it is also needed to check whether the entity is an institutional unit or a non-profit institution.

30.26: This 'long run' profit criterium is crucial to note that the 50% test is only a 'short run' criterium and that in the long run market units are expected to have at least 100% of cost covered. That is why it is suggested to align **30.27**: "in the short run, while making a profit in the long run. Such an analysis should cover a sustained multiyear period in order to avoid undue sector reclassifications.

30.33: Explain that with "return to capital" the net interest (i.e. revenue minus expenditure) is meant. Also comment from Germany in the previous consultation seems in need of addressing?

"*In my view there is a double-counting when "adding a return to capital used in production", because government output in the 2025 SNA will include a mark-up for non-market output of government. Therefore this mark-up will be included in* *intermediate consumption as well as GFCF (and hence depreciation). Otherwise the product balance and/or SUT would be in imbalance.* "

This seems also relevant for other chapters (notably 4 and 7).

The confusion illustrates need to T-accounts and tables and including these for consultation.

30.36: the text in green colour should be added for consistency: "c) If the unit is a non-market producer and controlled by government, it is part of the general government and the public sector. A special case should be made for the central bank which is a non-market producer *[nb as SNA 2025 proposes]* and usually controlled by central government, but is not usually part of general government. "

30.41 the list should not be presented as if it was exhaustive. Moreover, some doubts over adding trusts. Later on, no guidance is given on trusts, precisely because they can be analysed in current framework.

30.60 does not offer guidance - why is it included only to refer to the decision tree?

30.64: It should be "net social contributions" or "Social contributions less service charges" (from chapter 21) to be in line with the rest of the SNA as well as to be clear that social insurance scheme service charges (D.61SC) are to be deducted.

30.67: As 'actual sales' is vague, better to include the transaction codes. Unless GFSM items are referred to, which should be avoided without explaining them. In general, the section uses a lot of GFSM terminology without explaining the presentational and conceptual difference to SNA. It can only be understood by referring to the GFSM, but then there is no real purpose to the section. P.12 output for own final use (e.g. due to R&D capitalisation) is missing. Once again it is unclear whether the GFSM presentation or one compatible with SNA is discussed.

30.68. "Property income may or may not be an important source of revenue, but in either case, it relates directly to the same category as in the allocation of primary earned income account except for the ~~interest payable to financial intermediaries that is treated as~~ implicit financial services on loans and deposits which is respectively deducted from, or added to, the interest or similar expenditure or revenue in the national accounts presentation but not in the GFS presentation". → please consider the drafting changes in green colour.

30.73: Shouldn't 'expense' be defined first? Also as we understand from draft chapter 21 that 'expenditure' is now to be used in the sequence of accounts for what we used to call 'uses'. It follows that the distinction between GFS presentation (i.e. the shortcut) and the full sequence of accounts can no longer be explained by explaining the difference between 'expenditure' and 'uses', that is therefore a didactical loss and causes confusion as mentioned above.

Moreover, the IMF GFSM concept of 'net investment' is introduced here to mean "the sum of the gross capital formation and acquisitions less disposals of non-produced non-financial assets.". This implies that here 'net' is used to included consumption of fixed capital (or depreciation is it is proposed to be called), P.51c, i.e. the 'gross' part of ‘gross fixed capital formation’ instead of excluding it. This is very difficult to comprehend, because the phrase ‘gross fixed capital formation itself’ is a unnecessary difficult phrase as it is inherently a ‘net’ figure because disposals are deducted. To illustrate the problem: net capital formation (P.51n) deducts P.51c, while net investments doesn’t deduct this. This seems to violate the rules set in chapter 21 section H that net is only to be used to mean the exclusion of depreciation and depletion. Also it seem not in line with GFSM 2014 paragraph 8.4 *“The net investment in a nonfinancial asset is its acquisitions minus disposals minus consumption of fixed capital*”

30.78: last sentence "partially" should be inserted before "consolidated".

30.81: We note this is in 2008 SNA and in line with GFSM 2014 paragraph 3.162.

However in ESA we never consolidate production account/taxes/acquisition of assets see ESA 2010 para 20.157-20.159.

1/ It should be clarified that here the GFSM presentation is considered, not least by using the GFSM terminology, not consistent with macroeconomic framework in presentation and in concept. Furthermore in 2025 SNA paragraph 4.281 it is specifically stated that “*The rule of non-consolidation takes a special form regarding the transaction categories “output” and “intermediate consumption”. These transactions are to be recorded throughout at the level of establishments. This implies specifically that the accounts for institutional sectors and for industries should not be consolidated in respect of output delivered between establishments belonging to the same institutional unit*”.

2/ The issues of counterparty - affecting balancing item should be mentioned for the production account (basic price / purchaser price and taxes on products) and it should be mentioned that this cannot be done in SNA.

3/ D.45 rent is missing off the list.

4/ 30.81d It does not appear meaningful to speak of consolidation on items that are presented as acquisitions less disposal such as P.51g / P.52 / P.53 / NP.

30.82: "However, taxes on gross payroll and labour force that are not treated as social contributions should be consolidated when they are significant and can be identified." it should really be clarified here that it is the GFSM presentation that it discussed here, as it introduces differences to SNA, and to important indicators such as those measuring labour cost.

30.85: The last sentence should be eliminated as it is inaccurate. The classification used in GFSM for COFOG (7xxx) and expenditure (2xx and 3xx) are not combined and cross-classified in practice and the theoretical table 6A2 GFSM 2014 is very aggregate. Actually, IMF colleagues have presented to UNSC that such a cross-classification was missing. (Please note that a cross-classification has been achieved by European countries since 2007 and that guidance on it is given in the Eurostat COFOG manual.)

30.88: "*Most mandatory payments for permits and licenses authorizing pursuit of an activity or ownership of a good can be considered unrequited, making them a tax rather than a fee for services. Usually, the primary beneficiary of the regulatory schemes that require these payments is society as a whole, not the individual unit making the payment*". 1/ we propose to add 'compulsory and' before unrequited (consistently throughout SNA when discussion taxes). 2/ Throughout SNA this notion of 'society as whole' is used to mean general government (S.13). It is unclear writing especially when no sector codes are used. Taxes are government revenue, so general government (S.13) is the '*primary beneficiary'* (also unclear writing as no secondary beneficiaries are mentioned).

30.90: "Notwithstanding, if the licence is legally and practically transferable to a third party, it may still be classified as an asset in the category of contracts, leases and licences." We note this sentence was deleted (now shown with TC, thank you) from 2008 SNA 20.90a. It should be reintroduced as this is a substantial narrowing of AN.22 that doesn't seem to stem from any guidance notes.

30.116: We note that now swap is put after 'conversion' which is an improvement but still not satisfactory as it is not used in the AF.71 sense.

30.129: "In most instances, the guarantor is deemed to make a capital transfer to the original debtor, unless the guarantor acquires an effective claim on the creditor, in which case it leads to the recognition of a financial asset (a liability of the debtor). the liability of the creditor towards the guarantor)." Should it really be "creditor" in this line? If the former creditor has a (new) liability towards the guarantor, it becomes a debtor.

30.130: "*The accrual principle for time of recording requires that the total amount of debt assumed is recorded at the time the guarantee is activated and the debt assumed. Repayments of principal by the guarantor (the new debtor) and interest accruals on the assumed debt are recorded as these flows occur*". This is a circular way of reasoning which is not helpful for compilers: "the debt is assumed when the debt is assumed and the flows occur when they occur".

30.135 We think it should be mentioned that when the government is not acting as a market agent (i.e. providing gifts to a public corporation) it cannot be regarded as an F.5 transaction although the equity value increases. E.g. "when there is a pure market incentive for both parties involved". Also to be consistent with para 30.139b below.

30.136: Please consider using "distributable income" as in ESA.

30.139a: The addition of "over two or more years" was not subject of any guidance note, nor of the consolidated list of recommendations. It is inappropriate to add this in concept as losses can be accumulated in very short span of time and also problematic from a procedural point of view. Please remove this qualification.

30.146c is inconsistent with 30.146a/b and 30.145b and should be adapted accordingly. 30.146c reads: *When a government buys a loan at nominal value when the fair value is much less, no capital transfer for the difference in value is recorded.*

However, if there is reliable information that some loans are irrecoverable, their value is reduced to zero as an other volume change in the balance sheet of the corporation and a capital transfer should be recorded from government to the corporation for their former nominal value. If there is some possibility that some part of the loan may be recoverable in the future, the loans are reclassified (at their zero value) from the balance sheet of the corporation to that of the government at the time the capital transfer is recorded. If the value of the loans subsequently increases, this is shown as a revaluation item in the government's balance sheet." As an irrecoverable loan has a fair value of zero it is just an extreme form of a fair value being lower than the nominal value. Therefore it seems inconsistent to not record a capital transfer every time government is purchasing a loan with a fair value below the nominal value. It is also the economic substance to show a gift being provided here. In order to preserve the consistency of the international macroeconomic statistcal manuals, it would be good to align to ESA 2010 20.121 and the relevant chapters in MGDD, 4.7, 4.8.

30.155: this paragraph now reads "*The measurement of output of the central bank is described in paragraphs 7.165-7.169*", i.e. only a reference to other parts of SNA. However, what should be elaborated in chapter 30 as well as chapter 7 is how the non-market production of central banks is consumed as collective service paragraph 1.27/3.105c will be interpreted as P.32 of S.121 implying an innovation, but why not consider that the non-market output produced by S.121 is consumed by S.13 as a convention? This would imply a smaller change to the framework. If P.32 of S.13 a COFOG function need to be attributed. If P.32 of S.12, is there a suggestion for a new functional classification of S.12 expenditure?

30.158: typo "publiche".

30.172: *"This is particularly useful if there are public corporations operating at significant losses."* If 'public corporations' are operating for extended periods of time (3 years) at a loss they should be regarded as non-market producers as clearly they are not charging market prices. Therefore such units are not part of the public corporations but general government (S.13) I.e. this sentence should either be explained or deleted.

30.180 and Table 30.1 (Comparison of SNA and IPSAS): *"For example, a provision for environmental restoration that is recognized as a liability in IPSAS might be disclosed in supplementary tables in the SNA but would not be recognized in the sequence of economic accounts*" As an example this is a bit poorly chosen as environmental restoration are part of the terminal costs that is accounted for in the main framework (see for example 2025 draft SNA paragraph 11.229).

30.181 (and Table 30.1): it could be mentioned that many assets are valued at nominal value in SNA.

Italy

30.2930.27: it would be better not to write "this test is generally not applicable" but "this test is generally not discriminating"

330.31: the last two sentences are not clear.
30.136: It would be useful to clarify the type of asset to which reference is made (even with some examples) and to introduce a specific treatment for asset sales carried out by units within their core business (for example financial units)

European Central Bank

- **30.8** please replace "grants from other governments" with "grants from other governments and international organizations".
- **30.28** suggest to drop, as this is an invitation to introduce comparability issues.
- **30.60** reference to 5.108 would be useful.
- **30.90** reference to paragraphs dealing with leasing would be useful.
- **30.129** the last sentence is a repetition of the message in 30.128. Suggest to drop it.
- **30.173** reference to chapter 14 on the valuation of the "unique non-financial assets" would be useful.

Singapore

For consistency with paragraph 30.19, we suggest amending the text in paragraph 30.12 to “General government units include non-market producers controlled directly or indirectly by government…”.

Joao Fonseca

Paragraphs 30.177–30.182 - Suggest deleting these paragraphs to be consistent with the similar section on Links with IFRS (paragraphs 28.58–28.64) and these paragraphs basically repeat the table “Comparison of SNA and IPSAS”. As a consequence of this suggestion, we suggest adding the following sentence at the end of paragraph 30.176: "Table 30.1 summarizes the differences between SNA and IPSAS."

Table 30.1 - In the section of Recognition of liabilities and in the column of SNA, there is a sentence stating that "provisions for environmental restoration are recognized but not in the main framework of economic accounts." We suggest reassessing the consistency of this sentence with the new guidance introduced in 2025 SNA related to terminal costs in paragraphs 11.229–11.230.

Germany FSO

General comment - To depict public sector is not a priority for Germany. The implementation would be very resource intensive. In addition, to distinguish with and without consolidation is not implementable in practice as the public accounts are not granular enough for instance to draw all the flows between the different types of public units. Moreover, administrative data are not suited for this purpose as in budgetary law there is quite a flexibility within the resource categories.

UK Statistics Authority

Chapter 31 Non Profit Institutions

Saudi Arabia

More exploration should be added for Islamic countries and how to treat data of those sorts.

Chapter 32 Households

OECD

32.84: It may be useful to draw attention to the supplementary pension table that comes close to what is being proposed here. Furthermore, reference could be made to a possible table on household retirement resources.

32.85: Information on consumer durables would also be very relevant for a thematic account on unpaid household services.
32.108: Reference is made to measuring changes in real adjusted disposable income per household, but it may be better to refer to changes in real disposable income. In that regard, it is difficult to properly assign a price level to STiK (as it is provided for free) and to properly take it into account in deriving deflators per household group. As Schreyer et. al (2024) pointed out, it may be better to reflect STiK as environmental variables in which case the deflator should be applied to disposable income and not to adjusted disposable income.

32.14: As explained in more detail in our comment to 5.4, we suggest to replace ‘individual household’ with ‘private household’, in line with the terminology suggested in WS.2 and as used in social statistics.

32.81: It is stated that “By treating pension schemes as social insurance schemes, pension benefits are shown as current transfers, and thus income, rather than as a run-down of saving.” This doesn’t really reflect the role of the adjustment for change in pension entitlements. It may be relevant to also refer to that in this sentence.

32.102: The Handbook was published in 2024.

32.106: Reference is made to items specific to the national accounts for which imputations may be needed. Whereas currency and pension entitlements may indeed also require imputations, but this is not due to the fact that they are specific to the national accounts, but just difficult to capture in a survey. This may require a slight rephrasing.

UK Statistics Authority

Jennifer Ribarsky, IMF

32.99 Based on these criteria, the primary recommendation for the grouping of households is on the basis of deciles of equivalized household disposable income. This involves looking at the relative income available to a household, ranking households accordingly and allocating them into decile groups. Of course, a decile breakdown may still conceal large inequalities within these groups and hence further breakdowns into more granular groups may be considered. This may be particularly relevant for the top income and wealth groups. Thus, accounts for the top 5%, 1% and even 0.1% of income earners may be compiled.

32.100 Other household groupings that may be considered include those based on levels of permanent income, main source of income the age of the reference person and the composition of households. Section C and Chapter 34 provide additional discussion on the subsectoring of households and the range of characteristics of households and household members that can be considered in distributional accounting and analysis.

European Central Bank

32.8 a note that some income transfers, and particularly taxation, are made at household level, and not an individual level as stated in the paragraph.

32.8 d, 32. 24 3.26 and others please also mention wealth surveys (together with income and consumption surveys).

32.93 last sentence; please indicate that the simplification of considering institutional households as a single individual will always result in errors/ distortions (not only "may distort").

32.95

> **first sentence**; drafting suggestion: "While approaches for estimating and applying equivalence scales for income and consumption are well developed, for wealth there is less consensus whether to use equivalence scales and what the appropriate scale would be (see also para 32.112)".
>
> **last sentence**; drafting suggestion: "However, since wealth is a stock and not a flow measure, for specific purposes, it may be relevant to show results on the distribution of wealth on the basis of alternative equivalence scales, including the option to present distributional results by household size and composition without rescaling."

32.103 If step 1. implies to remove all institutional households from the analysis without grossing-up the results to the entire household sector in a later step, the link between distributional accounts and macro results for the household sector is lost (as institutional households are not separated in aggregate national account results). This major caveat of the method and deviation from the objectives mentioned in para 32.91 should be spelled out.

32

Netherlands

32.92 states '*As a consequence, they behave differently and the data about their income, consumption and wealth is not readily comparable with those of private households.*' However distributional national accounts are constructed because not every household behaves the same, so this should be a reason to include them, more than a reason to exclude them. Also rephrase the part that data on income and wealth is not readily available, to might not be readily available, in the Netherlands we do have this information. And lastly please explain why modelling and assumptions are valid, and in case of the very rich recommended, approaches to create distributional accounts, but not on this matter?

32.93 This is phrased to one sided, there are possible consequences when these households are included, but then also state the possible consequences when these household are excluded, i.e. income inequality is likely to be underestimated.

32.99 Please add here that inequality is not only relevant when focusing on top income and top wealth, but that the bottom of the distribution is just as relevant, and depending on the specific user demands mentioned in 32.98 perhaps even more interesting.

32.103 #2 remove ".. for each household subsector/group", because this step is ideally done on the level of the individual household. Grouping into subsectors in only done in step 4.

Germany FSO

D. Household as producers - Household electricity production should be mentioned here, as well as user-generated content on digital platforms produced by households fulfilling the criteria of assets (IPPs) to clarify the treatment.

Chapter 39 Informal economy

Argentina

We believe that it would be highly relevant to expand the treatment of the Non Observed economy (NOE) in this chapter. The different aspects included in the NOE are essential to ensure exhaustiveness. It would also be convenient to include the different typologies of Non-Observed Activities discussed in OECD (2002) and their definitions. We suggest including "Table 3.1 Classification of non-observed activities by type of activity, cause and unit" from OECD (2002) including the typologies (T8) aggregated by Eurostat. In the case of illegal activities, reference could be made to what is included in Chapter 7.

In Figure 39.2, placing the labels inside the bubbles and referring to the solid line bubble as 'Not observed' and the dashed line bubble as 'Observed' would allow for a clearer understanding that, while the NOE and the informal economy share common

UK Statistics Authority

aspects, the non-common aspects are also relevant to measure and assess Non-Observed Activities.

Nepal

As the dependent contractors have been introduced as per ICLS21, elaboration on it is needed more with few more examples.

Also from policy perspectives, the methods of generating the contribution of informal economy or informal sector or informal employment in gross domestic product is more demanded. If it could be elaborated with brief methods or some descriptions, it will be helpful in deriving such indicators consistently.

Similarly, the main data sources of informal sector and informal employment are for example economic census and labour force surveys respectively. Some briefing on standard methodology and scope of conducting economic census if described briefly, it will be useful to many NSOs for conducting economic census consistently. As conducting population and housing census, UNSD often develops the recommendation manuals but for conducting economic census, there does not exists standard recommendation manuals till now. Emphasis should be given for conducting economic census if there is prevalent of informal economy.

Colombia

39.2 If there are agreed-upon definitions for informal economy, non-observed economy, informality, illegality, and other related terms, it is suggested to list and incorporate them in order to conceptually, technically, and statistically delineate them.

39.4 It is necessary to specify a reconciliation mechanism between employment data and the socioeconomic behaviour of the household institutional sector. This implies recognizing an integrated framework where, in addition to employment, consumption, expenditure, and accumulation transactions are related, providing more information for the contextual analysis of informality.

39.5 In the case of cross-border flows, it must be ensured that external sector statistics establish measurements of the informal economy and its reconciliation with national accounts, for both informal trade of goods and services, as well as employment, remittances, the tourism sector, undeclared trade, and transfers.

39.7 In addition to the list of compilable information sources for estimation, it would be useful to have examples of case studies or experimental statistics on the structuring and measurement of the informal economy that could be replicated.

BPM Chapters 6 & 11

Advice Paper

NSCASE(25)03

Executive summary

1. This paper provides the UK response to chapters 6 and elements of chapter 11 of BPM7 and highlights changes made to these chapters. Overall, there are limited changes for these chapters since BPM6 and on the whole the ONS is happy with the chapters contents, but is concerned about feasibility of obtaining quality data on crypto related activities.
2. The link to Chapter 6 can be found here
3. The link to Chapter 11 can be found here

Introduction

4. At the July 2024 meeting, the Committee accepted the statistical principals underpinning the Balance of Payments Manual 7 and reviewed updates to Chapters 5, 7, 8 and 9 of the new manual. Consequently, six BPM 7 chapters, containing significant economic content (6,10, 11, 12, 13 and 19), still required review by the Committee.
5. Due to several of these chapters being developed in parallel with SNA chapters, which have already been reviewed by NSCASE, we have been able to reduce the Committee's review burden to BPM Chapters 6 and 11.
6. For these BPM7 chapters the ONS have decided to highlight only new paragraphs or changes to existing paragraphs as the ONS was largely working from the basis of BPM6. The paper is structured to provide a list of any completely new paragraphs for each of the chapters before providing a table that shows the changes of existing chapters with new text in green and removed text in red.

ONS Considerations

7. ONS is generally comfortable with the content of Chapters 6 and 11, although ONS would like to bring to the Committee's attention, its concern regarding the measurement of crypto related activities. ONS believes it will struggle to source appropriate data to meet these measurement requirements. Any advice that NSCASE can give about potential sources of data would be welcomed by ONS.

BPM7 Chapter 6 – Functional Categories in External Accounts

Chapter 6 New paragraphs

,

8. Below ONS provides for the Committee the new paragraphs added to Chapter 6 for BPM7

Coverage of debt between selected affiliated financial corporations

UK Statistics Authority

9. **Table 6.2 Functional Category of Debt Between Affiliated Enterprises**

		Direct Investment liabilities			
		Deposit-taking corporations (S121/S122)	**Investment funds (S123/S124)**	**Other financial intermediaries except insurance corporations and pension funds (S125)**	**Other sectors**
Direct Investment Assets	Deposit-taking corporations (S121/S122)	OI (or PI)	OI (or PI)	OI (or PI)	DI
	Investment funds (123/S124)	OI (or PI)	OI (or PI)	OI (or PI)	DI
	Other financial intermediaries except insurance corporations and pension funds (S125)	OI (or PI)	OI (or PI)	OI (or PI)	DI
	Other sectors	DI	DI	DI	DI

Note: DI – direct investment; PI – portfolio investment; OI – other investment
Other sectors includes General Government (S13), Other financial institutions (S126/S127/S128/S129), Non-financial corporations (S11) and households and Non-profit institutions Serving Households (S14/S15).

Types of direct investment transactions and positions

10. 6.37 In the standard components, direct investment is classified according to the instruments (equity and debt instruments) and sectors (central bank; deposit-taking corporations except the central bank; general government; other financial corporations; nonfinancial corporations; and households and NPISHs).

11. 6.37-1 The sectoral presentation of direct investment links with balance sheet and other sectoral data compiled in the system of national accounts (SNA),

monetary and financial statistics (MFS), and government finance statistics (GFS), thus facilitating comparison with these datasets. Also, this presentation provides a convenient way to analyze the net foreign lending or borrowing of each resident sector. It also supports the Balance Sheet Approach (BSA) by providing details on the external positions for the resident sectors (see paragraphs 19.xx-xx for details on BSA).

12. 6.37-2 The following items based on the relationship between the investor and the entity receiving the investment are included under memorandum items, namely:

    (a) investment by a direct investor in its direct investment enterprise (whether in an immediate relationship or not);

    (b) reverse investment by a direct investment enterprise in its own immediate or indirect direct investor, as explained in paragraphs 6.39–6.40; and

    (c) investment between resident and nonresident fellow enterprises, as explained in paragraph 6.17, combining equity and debt investment.

13. 6.38 These three categories memorandum items reflect different types of relationships and motivations. For example, the interpretation of a direct investor acquiring direct investment assets is different from a direct investment enterprise acquiring direct investment assets. While the first type of investment involves influence or control, this may not be the case for the other two types, because the investor is not a direct investor. It is important for compilers to monitor trends in the second and third types to identify if they are becoming significant. It is also important to identify reverse investment and investment between fellows to be able to determine the net investment by nonresident direct investors in the economy and by resident direct investors abroad. Moreover, these memorandum items are necessary to derive the data under directional principle (see paragraphs 6.42-6.43 and Box 6.4).

14. 6.38-1 In addition, reinvestment of earnings should be reported as a memorandum item in the balance of payments' financial account, which should be consistent with the standard component, reinvested earnings, recorded in the earned income account (see Annex 14 for details on the presentation of these items and supplementary items in balance of payments.

Further issues concerning direct investment

15. 6.52-1 In their present form, direct investment statistics do not separately identify investments that represent the creation of new business enterprises in the host economy and additional injection of funds to existing ones. Greenfield direct investment and extension of capacity is investment in direct investment enterprises established within the last three years and capital injections that are used to expand the capacity of direct investment enterprises that have

existed for three years or more. Annex 6 provides further guidance on the definition and collection of supplementary data on greenfield investment and extension of capacity

16. 6.52-2 Cash pooling arrangements provided by banks allow corporations to externalize the intra-group cash management, and thus, manage their global liquidity more effectively and with lower costs. Annex 6 provides a description of the main types of cash pooling arrangements (single legal account, physical cash pool, and notional cash pool) and their different statistical treatments (i.e., to classify associated debt instruments as either direct investment or other investment).

Other Investment

17. 6.62 Other equity and equity in international organizations is included in other investment, when it is not direct investment or reserve assets. Other equity and equity in international organizations, as defined in paragraph 5.26, is not in the form of securities, so it is not included in portfolio investment. Participation in some international organizations (e.g., ownership of currency union central banks) is not in the form of securities tradable shares and so it is classified as other equity in this item. Although equity in some international organizations, such as the BIS, is in the form of unlisted shares, the equity is not tradable by member countries; therefore, it should also be classified in this item. In most cases, equity in quasi-corporations for branches and notional units for ownership of land of real estate and other natural resources is included in direct investment; however, it is included in other investment if the share of voting power is less than 10 percent.

Central Bank swap arrangements

18. 6.102 Assets created under reciprocal facilities (swap arrangements) for the temporary exchange of deposits between the central banks of two economies warrant mention. These swap arrangements typically do not conform fully to a standard currency swap on financial market. These off-market central bank currency swap arrangements should be recorded as an exchange of deposits with maintenance of value once the arrangement is activated and the money is drawn by either party. Following this approach, each central bank acquires a foreign asset in foreign currency, and creates a foreign liability in domestic currency. Since the liability deposit account in domestic currency is fully indexed to a foreign currency (the currency of the partner economy), the liability in domestic currency should be treated as being denominated in that foreign currency (see paragraph 3.101). To accomplish this treatment, periodic revaluation adjustments to the liability should be carried out to reflect the total amount of domestic currency needed to buy the foreign currency to be delivered, including any interest payment.

19. 6.102-1 Deposits (in foreign exchange) acquired by the central bank initiating the arrangement are treated as reserve assets if the exchange provides the central bank with assets that fully meet the reserve assets criteria. If the

criteria are not met (for example, if the funds are not readily available because they are subject to authorization by the counterpart central bank), the funds would not conform to the definition of reserve assets and the deposit should be recorded as “other investment”. Reciprocal deposits acquired by the partner central bank also are considered as reserve assets, as long as they meet the general criteria for being reserve assets, if they are including being denominated and settled in a convertible currency.

20. 6.102-2 If the swap arrangement has the characteristics of a standard (market priced) swap contract, it is recorded as a standard currency/foreign exchange swap. Namely, an exchange of deposits with the simultaneous creation of a forward contract.

Box 6.6 Net International Reserves

The concept of Net International Reserves (NIR) is widely used as an indicator of a country’s external vulnerability. This BOX presents a standard statistical definition of NIR based on the conceptual framework of this Manual and the Guidelines for the International Reserves and Foreign Currency Liquidity Template (IRFCL Template). This statistical definition provides a comprehensive approach aimed to inform reserve adequacy assessments and macroeconomic policy advice. However, country-specific considerations remain paramount in the design and monitoring of IMF supported programs. The introduction of this standardized statistical definition of NIR should not limit the flexibility to adjust the measurement of NIR considering country specific conditions and circumstances.

Net International Reserves = Reserve assets minus predetermined short-term net foreign currency drains

NIR are calculated as reserve assets (RA) minus predetermined short-term net foreign currency drains (FCD). FCD are predetermined contractual foreign currency obligations (foreign currency outflows net of inflows) scheduled to come due during the 12 months ahead recorded at cash-flow value when the flows take place, as defined in Section II, IRFCL Template. FCD include short-term on- and off-balance sheet (e.g., financial derivatives, guarantees are not included) foreign currency obligations to residents and nonresidents. This is because RA will be used regardless of whether the drain arises from residents or nonresidents. FCD also include short term on- and off-balance sheet foreign currency obligations of the central government, as payment of these obligations would usually involve the use of RA.

In cases where short-term foreign currency outflows/inflows vis-à-vis the domestic currency from forwards and futures are scheduled in FCD (IRFCL Template, Section II, 2), corresponding market values of the derivative contracts recorded in RA (Section I.A (5) of the IRFCL template) should be excluded in the calculation of NIR to avoid double counting. Only market values of foreign exchange forwards/swaps, for which notional values are recorded in Section II.2, should be excluded; market values of other types of derivatives (e.g., options) should remain in RA in the calculation of NIR. In cases where notional values of non-deliverable forwards

(NDFs) are included in FCD, they should be excluded in the calculation of NIR as the payment at maturity would only involve the market value of the contract (the market value is included in RA if the contract is settled in foreign currency).

These concepts and data are already covered in this Manual and the Guidelines for the IRFCL Template. The definition of RA on a gross basis is based on this Manual. Although the concept of FCD goes beyond the residence concept of this Manual, Section II of the IRFCL Template covers these data (3). At the time of drafting this Manual, the compilation of the IRFCL Template is a requirement to subscribe to the IMF's Special Data Dissemination Standard (SDDS) and to adhere to the SDDS Plus. Even if the country does not compile the IRFCL Template yet, the same information could be collected from the authorities based on the Guidelines for the IRFCL Template to calculate NIR.

1 The statistical definition of NIR goes beyond the general scope of this Manual (the balance of payments framework does not cover transactions and positions with residents). However, this Manual provides guidance on this issue considering that it is an essential concept widely used to assess external vulnerability of a country and that there are strong needs for a standardized definition as a benchmark to define country specific NIR. The IRFCL Template should play the central role in collecting data related to NIR. The Guidelines for the IRFCL Template provide a comprehensive framework to collect data related to reserve assets encompassing positions with residents and nonresidents, on- and off-balance sheet items, and those for the monetary authorities and the central government (including guarantees, credit lines, and options), as well as financial instruments denominated in foreign currency and settled in domestic currency.

2 This exclusion should only apply to the calculation of NIR. The recording of RA in the BOP, IIP, or the recording of items in the IRFCL Template should not change. The treatment of financial derivatives in reserve assets of balance of payments and IIP are described in paragraph 6.xx.

3 Section II in the IRFCL template allows for total pre-determined short-term drains to be decomposed between those of the monetary authorities and the central government, although in practice in most cases this decomposition is not provided. In the very rare case, where the central government has sufficient short-term FX assets, held overseas, then the short-term liabilities of the central government would not be included in the predetermined short-term drains in the calculation of NIR (the liabilities still need to be recorded in the IRFCL Template).

Chapter 6 Changed Paragraphs

21. Below the ONS provides the committee with direct changes to paragraphs

Paragraph	Old Paragraph	New Paragraph
6.24	A direct investment enterprise is always a corporation, (which as a statistical term includes branches, notional resident units, trusts, other quasi-corporations, and investment funds, as well as incorporated entities). Because a direct investment enterprise is owned by another entity, households, NPISHs or governments can be direct investors, but they cannot be direct investment enterprises. A public corporation, as defined in paragraphs 4.108–4.112, in some instances also may be a direct investment enterprise.	A direct investment enterprise is always a corporation, (which as a statistical term includes branches, notional resident units, trusts, other quasi-corporations, as well as incorporated entities) with the following exceptions. Regarding central banks, they can be direct investors, but can't be direct investment enterprises as they are not created with the intention of repatriating earnings to their investors. Likewise, investment funds (MMF and non-MMF) can be direct investors, but they cannot be direct investment

		enterprises as investments in investment funds shares are always considered to be portfolio investment. Because a direct investment enterprise is owned by another entity, households, NPISHs or governments can be direct investors, but they cannot be direct investment enterprises. A public corporation, as defined in paragraphs 4.108–4.112, in some instances also may be a direct investment enterprise.
6.28	Debt between selected affiliated financial corporations is not classified as direct investment because it is not considered to be so strongly connected to the direct investment relationship. The financial corporations covered by this case are: (a) deposit-taking corporations (both central banks and deposit-taking corporations other than the central bank); (b) investment funds; and (c) other financial intermediaries except insurance corporations and pension funds. In other words, the usual direct investment definitions apply for captive financial institutions and money lenders, insurance corporations, pension funds, and financial auxiliaries. (These subsectors are defined in Chapter 4, Section D; debt instruments are defined in paragraphs 5.31–5.33.) All debt positions between the selected types of affiliated financial corporations are excluded from direct investment and are included under portfolio or other investment. Both affiliated parties must be one of the selected types of financial corporations, but they need not be the same type.	Debt between selected affiliated financial corporations is not classified as direct investment because it is not considered to be so strongly connected to the direct investment relationship. The financial corporations covered by this case are: (a) deposit-taking corporations (both central banks and deposit-taking corporations other than the central bank); (b) investment funds; and (c) other financial intermediaries except insurance corporations and pension funds. In other words, the usual direct investment definitions apply for captive financial institutions and money lenders, insurance corporations, pension funds, and financial auxiliaries. (These subsectors are defined in Chapter 4, Section D; debt instruments are defined in paragraphs 5.31–5.33.) All debt positions between the selected types of affiliated financial corporations are excluded from direct investment and are included under portfolio (e.g., debt securities) or other investment (e.g., loans, deposits). Both affiliated parties must be one of the selected types of financial corporations, but they need not be the same type. Table 6.2 summarizes the functional category of debt between affiliated enterprises.
6.30	Investment funds may be direct investors or direct investment enterprises. A “fund of funds” is an investment fund that invests in other investment funds and thus may	

	become a direct investor in one of the funds. In a master-feeder fund arrangement, one or more investment funds (feeder funds) pool their portfolio in another fund (the master fund). In this case, a feeder fund that has 10 percent or more of the voting power in the master fund would meet the FDIR definition of a direct investor. Similarly, retail funds that hold 10 percent or more of voting power in an enterprise are direct investors.	
6.34 (c)	(c) the inclusions of these data in direct investment promotes symmetry and consistency among economies. However, for the economies through which the funds pass, it is useful to identify inflows and outflows not intended for use by the entity concerned. At the time of writing, there are no standard definitions or methods to distinguish pass-through funds from other direct investment flows. Compilers in economies that have large values of pass-through funds should consider the compilation of supplementary data on funds in transit, based on national definitions.	(c) the inclusions of these data in direct investment promotes symmetry and consistency among economies. However, for the economies through which the funds pass, it is useful to identify inflows and outflows not intended for use by the entity concerned. This Manual recommends a supplemental framework for the statistics by ultimate investing economy (UIE), ultimate host economy (UHE), and pass-through funds. Primarily, the supplemental framework will be applied to the development of direct investment statistics by UIE and UHE that could be used in turn to derive aggregates on pass-through funds. Annex 6 and the OECD Benchmark Definition of Foreign Direct Investment provides detailed guidance on this supplemental framework.
6.41	Data on reverse investment and investment between fellow enterprises should be separately published, where significant, to assist users in understanding the nature of direct investment. Issues associated with investment income on reverse investment and investment between fellow enterprises direct investment equity and debt instruments are covered in paragraphs 12.xx-xx 11.99–11.100.	
6.53	The foreign-controlled corporations subsector in the SNA overlaps with direct investment. The foreign-controlled corporations subsector includes all subsidiaries and branches resident in the economy, as well as any associates or other enterprises	6.53 The foreign-controlled corporations subsector in the SNA overlaps with direct investment. The foreign-controlled corporations subsector includes all subsidiaries and branches resident in the economy. (see paragraphs 4.xx.4.xx

	resident in the economy that are under de facto foreign control.	for details on foreign control of corporations in the SNA).
6.54	Portfolio investment is defined as cross-border transactions and positions involving debt or equity securities, other than those included in direct investment or reserve assets. Securities are defined in paragraph 5.15. The negotiability of securities is a way of facilitating trading, allowing them to be held by different parties during their lives. Negotiability allows investors to diversify their portfolios and to withdraw their investment readily. Investment fund shares or units (i.e., those issued by investment funds) that are evidenced by securities and that are not reserve assets or direct investment are included in portfolio investment. Although they are negotiable instruments, exchange-traded financial derivatives are not included in portfolio investment because they are included in their own separate category.	Portfolio investment is defined as cross-border transactions and positions involving debt or equity securities, other than those included in direct investment or reserve assets. Securities are defined in paragraph 5.15. The negotiability of securities is a way of facilitating trading, allowing them to be held by different parties during their lives. Negotiability allows investors to diversify their portfolios and to withdraw their investment readily. Investment fund shares or units (i.e., those issued by investment funds) that are evidenced by securities and that are not reserve assets or direct investment are included in portfolio investment. Further, investments in investment fund shares are always treated as portfolio investment irrespective of the ownership of voting power (i.e., 10 percent or higher) (see paragraph 6.24). Although they are negotiable instruments, exchange-traded financial derivatives are not included in portfolio investment because they are included in their own separate category.
6.56	Portfolio investment covers, but is not limited to, securities traded on organized or other financial markets. Portfolio investment usually involves financial infrastructure, such as a suitable legal, regulatory, and settlement framework, along with market-making dealers, and a sufficient volume of buyers and sellers. However, acquisition of shares in hedge funds, private equity funds, and venture capital are examples of portfolio investment that occurs in less public and more lightly regulated markets. (However, shares in these funds are included in direct investment when the holdings reach the 10 percent threshold, and in other equity in other investment when investment is not in the form of a security and not included in direct investment or reserve assets.) Portfolio investment is distinctive because of the nature of	Portfolio investment covers, but is not limited to, securities traded on organized or other financial markets. Portfolio investment usually involves financial infrastructure, such as a suitable legal, regulatory, and settlement framework, along with market-making dealers, and a sufficient volume of buyers and sellers. However, acquisition of shares in hedge funds, private equity funds, and venture capital are examples of portfolio investment that occurs in less public and more lightly regulated markets. (However, shares in these funds are included in equity in other investment when investment is not in the form of a security and not included in reserve assets.) Portfolio investment is distinctive because of the nature of the funds raised, the largely anonymous relationship between the issuers and holders, and

	the funds raised, the largely anonymous relationship between the issuers and holders, and the degree of trading liquidity in the instrument.	the degree of trading liquidity in the instrument.
6.60	Recording of financial derivatives separately for both assets and liabilities is encouraged for both positions and transactions. However, it is recognized that measuring transactions on a gross basis may not be feasible, in which case net reporting is acceptable.	Recording of financial derivatives separately for both assets and liabilities is encouraged for both positions and transactions. However, it is recognized that measuring transactions on a gross basis may not be feasible, in which case net reporting is acceptable. Further, this Manual recommends presenting financial derivatives by market risk categories, by instrument, and by trading venue and clearing status on a supplementary basis (see paragraph 5.95).
6.81	To minimize risks of default in gold lending transactions, monetary authorities can require adequate collateral instead of cash (such as securities) from the depository. Such securities collateral received should not be included in reserve assets thereby preventing double counting as the gold lent remains an asset of the monetary authorities.	To minimize risks of default in gold lending transactions, monetary authorities can require adequate collateral instead of cash (such as securities) from the depository. Such securities collateral received should not be included in reserve assets or portfolio investment, as the original owner maintains the economic ownership of the securities. This prevents double counting as the gold lent remains an asset of the monetary authorities.
6.82	Allocated and unallocated gold accounts with nonresidents out on swap by the monetary authorities for cash collateral are either (a) included as reserve assets of the original owner with the loan generated reported as a reserve-related liability (a memorandum item) if a liability is to a nonresident, or (b) excluded from reserve assets and either demonetized (gold bullion) or reclassified as other investment, currency and deposits, assets (unallocated gold accounts). In either case, any loan liability to a nonresident is recorded within "other investment," with the foreign currency received (provided it is a claim on a nonresident), and recorded as an increase in currency and deposits within reserve assets. The value of allocated and unallocated gold accounts included in reserve assets	Allocated and unallocated gold accounts with nonresidents out on swap by the monetary authorities for cash collateral are excluded from reserve assets and either demonetized (gold bullion) or reclassified as other investment, currency and deposits, assets (unallocated gold accounts), if the gold accounts are not readily available for meeting balance of payments financing needs (or available for meeting balance of payments financing needs only if a substitute reserve asset has to be provided as collateral). A loan liability to a nonresident from a gold swap is recorded in "other investment," with the foreign currency received (provided it is a financial claim on a nonresident and meets the criteria for reserve assets) being recorded as an

	and out on swap (see paragraphs 7.58–7.59) for cash collateral is identified in the IIP to facilitate an assessment of the level of reserves adjusted for the swap activities.	increase in currency and deposits within reserve assets.
6.88	Securities that have been transferred under repurchase agreements, or similar agreements reverse transactions (e.g., repos) by the monetary authorities for cash collateral are assets of the original authorities and are either (a) included as reserve assets of the original owner with the loan generated reported as a reserve-related liability (a memorandum item) if a liability is to a nonresident, or (b) excluded from reserve assets and reclassified as portfolio investment assets. In either case, any loan liability to a nonresident is recorded within "other investment," with the foreign currency received, provided it is a claim on a nonresident, and is recorded as an increase in currency and deposits within reserve assets. The value of securities included in reserve assets and out on repo (or similar arrangements, see paragraph 7.58) for cash collateral is identified in the IIP to facilitate an assessment of the level of reserves adjusted for the repo activities	Securities that have been transferred under reverse transactions (e.g., repos) by the monetary authorities in exchange of cash collateral remain assets of the original authorities. However, they are generally not readily available for meeting balance of payments financing needs. Therefore, such securities should be excluded from reserve assets and reclassified as portfolio investment assets through the end of the transaction. In regard to foreign currency received, provided it meets the reserve assets criteria it should be recorded as an increase in currency and deposits within reserve assets, while a loan liability should be recorded under "other investment".
6.103	Reciprocal currency arrangements between central banks may also take the form of a securities repurchase agreement. In this case, one central bank transfers securities (sometimes denominated in its domestic currency) to another central bank in exchange for foreign currency, with the transactions late reversed, typically three months in the future. Such transactions should be treated as collateralized loans, with the central bank that initiated the transaction paying corresponding interest on the foreign currency received. The cash-taking central bank can therefore include the foreign currency received in its reserve assets if the criteria for reserve assets are met. The cash-providing central bank should not include the securities received as collateral in its reserve	Reciprocal currency arrangements between central banks may also take the form of a securities repurchase agreement. In this case, one central bank transfers securities (sometimes denominated in its domestic currency) to another central bank in exchange for foreign currency, with the transactions late reversed, typically three months in the future. Such transactions should be treated as collateralized loans, with the central bank that initiated the transaction paying corresponding interest on the foreign currency received. The cash-taking central bank can therefore include the foreign currency received in its reserve assets if the criteria for reserve assets are met. The cash-receiving central bank should reclassify the repoed out securities from reserve

	assets as the securities are treated as not having changed economic ownership (see paragraph 5.54). See also paragraph 6.90 on securities lending or borrowing transactions in reserve assets.	assets to portfolio investment, if they were included in reserve assets prior to the repo transaction but they are no longer readily available for meeting balance of payments financing needs (or available for meeting balance of payments financing needs only if a substitute reserve asset has to be provided as collateral). The cash-providing central bank should not include the securities received as collateral in its reserve assets as the securities are treated as not having changed economic ownership (see paragraph 5.54). See also paragraph 6.90 on securities lending or borrowing transactions in reserve assets.

BPM7 Chapter 11 – Services Account

Chapter 11 New paragraphs

Concepts and coverage

22. 11.1 *Services are the result of a production activity that changes the conditions of the consuming units, or facilitates the exchange of products or financial assets*. The focus of the services account in the balance of payments is the point at which services are exchanged between a resident and a nonresident.

23. 11.2 *Services are not generally separate items over which ownership rights can be established and cannot generally be separated from their production.* However, as seen later in this chapter, some knowledge-capturing products, such as computer software and other intellectual property products, may be traded separately from their production, like goods. The cross-border transactions in those products (e.g. computer software, audiovisual products, research and development, and other intellectual property products and/or knowledge capturing products) are also recorded as services in balance of payments – excluding when provided on physical media with right to perpetual use (see paragraph 10.17c). In addition, cross-border transactions concerning the use of property rights related to marketing assets (such as franchises, trademarks, and brand names) are recorded as services. For discussion on the conceptual issues relating services in the context of national accounts, refer to paragraphs 7.xx,7.xx, *2025 SNA.*

24. 11.3 Knowledge-capturing products concern the provision, storage, communication and dissemination of information, advice and entertainment in such a way that the consuming unit can access the knowledge repeatedly. They have many of the characteristics of goods in that ownership rights over these products can be established and they can be used repeatedly. Whether recorded as goods or services, these products possess the essential common characteristics that they can be produced by one unit and supplied to another.

Table 11.1 Overview of the Services Account

	Exports (credit/revenue)	Imports (debit/expenditure)
Manufacturing services on physical inputs owned by others		
Maintenance and repair services n.i.e.		
Transport		
Travel		
Construction		
Insurance and pension services		
Financial services		
Charges for the use of intellectual property n.i.e.		
Telecommunications services		
Computer and information services		
Research and development services		
Professional and management consulting services		
Trade-related services		
Operating leasing services		
Technical and other business services		
Personal, cultural, and recreational services		
Government goods and services n.i.e		
Balance on international trade in services		
Note: this table is expository; for standard components, see Annex 14		

25. 11.70 The value of manufacturing services on physical inputs owned by others is not necessarily the same as the difference between the value of the goods sent for processing and the value of goods after processing. Possible causes for difference include holding gains, or losses, the inclusion of overhead expenses (such as financing, marketing, and know-how included in the finished good price), and measurement error associated with the valuation of goods movements where there is no sale (see paragraph 12.14 *BPM6 Compilation Guide.*

26. 11.78-1 Rentals, charters, or operating leases of vessels, aircraft, freight, cars, or other commercial vehicles with crews for the carriage of freight are included in freight services. Also included are towing and services related to the transport of oil platforms, floating cranes and dredges. Financial leases of transport equipment are excluded from transport services (see paragraphs 5.56-5.59 and 10.17(f).

27. 11.80-1. The services of freight forwarders are also included in this category. Freight forwarders arrange the transportation of goods and related logistics on behalf of shippers (clients) to ensure that goods reach their destination efficiently. Their services output is measured in terms of the total revenue they generate, net of associated expenses.

Box 11.2 Recording of Package Tours

Tour operators (TOs) are businesses that combine two or more travel related services (for example, transport accommodation, meals, entertainment, sightseeing) and sell them through travel agencies or directly to final consumers as a single product called a package tour for a single price. The components of a package tour might be pre-established or can result from an "a la carte" procedure where the visitor chooses a combination of services from a pre-established list.

This *Manual* recommends that a package tour should not be treated as a new product. The relevant economic interactions should be unbundled in order to record the transactions by different services providers that can be residents or nonresidents, and that contribute to the package tour separately : a) the services themselves (for example, transport, accommodation); b) the services provided by the tour operator; and c) the margin of the travel agency (usually different from the tour operator) selling the tour. The services arranged by the tour operator (transportation, accommodation, etc) are not consumed by it when producing the tour package. These services are in fact consumed and recorded in the external accounts (13) by the traveller weeks or months after the tour was booked and payments were made to the tour operator. The margin of the travel agency is included under trade related services as is the case with the services of the tour operator (14). The margin of the travel agency is included under trade-related services as is the case with the services of the tour operator (15), whereas transportation is included under passenger transport and accommodation (e.g. hotels, guesthouses) under travel, provided the relevant transactions are between residents and nonresidents.

To support the calculation of price statistics, countries may record travel packages as a separate supplementary item in *BPM7.*

13 *BPM7* paragraph 3.47 states: "Transactions in services are recorded when the services are provided…"

14 For more details see the World Tourism Organisations (WTO) paper of 2004 "C*larifying the Treatment of Travel Agency. Tour Operator, Travel Agency Services and Package Tours in SNA, Balance of Payments and TSA and their Mutual Relationship".*

15 Services of TO are treated as trade-related as their output mainly comes from intermediation fee/commissions. They may also earn from advertising/sponsorships Ancillary services such as visa/passport services etc.

Other issues related to construction

28. 11.109-1 A separate supplementary breakdown of construction may be provided for (a) constructions and (b) construction services along the lines of the CPC divisions 53 and 54. Construction cover the physical outputs of construction activities (e.g. buildings and civil engineering works such as highways, bridges, etc provided in less than a year) and construction services cover the services provided in constructing the physical output.

    Construction abroad
    Of which:
        Constructions
        Construction services

    Construction in the compiling economy
    Of which:
        Constructions
        Construction services

Insurance and pension services

29. 11.117-1 Islamic insurance (Takaful) and re-insurance (Re-takaful) are discussed in Chapter 17, Islamic Finance. While these insurance schemes have some similarities with the conventional insurance presented in this section, there are notable differences in the business arrangements as explained in Chapter 17. Insurance services provided through fintech (commonly known as InsurTech) should be covered under respective insurance services categories.

Financial services

30. 11.121-1 Factoring is a transaction in which a financial company (factor, which can be a bank, a specialised factoring company, or other financial organisation) buys trade accounts receivables from a supplier at a discount (see paragraph 5.xx for additional details on factoring). The discount is equal to the difference between the nominal value of the accounts receivable and the actual payment by the factor to the supplier and may consist of three elements: (i) fees; (ii) interest; and (iii) compensation for possible credit defaults. From a conceptual perspective, the service provided by the factor (i.e. output of the factor) is represented by the first element only. For additional details on factoring refer to paragraph 7.xx *2025 SNA*

Margins on buying and selling transactions

31. 11.123-1 In practice, margins can be very difficult to accurately compile. This is usually due to the fact (a) not all instruments are traded in a way that

generates margins (22), (b) not all transactions by dealers generate margins; (c) bid-ask spreads may be very different for each transaction; and (d) the geographical and sector allocation of this service is complex to accurately determine.

(22) Trading in equities often do not generate margins. Equities can be purchases either in primary or secondary markets. In both cases; margins are typically not generated, as only explicit fees are charged during the transactions. There are, however, secondary market situations in which trading in equities can generate margins.

32. 11.125-1 Institutional units may be set up for holding and managing assets on behalf of others. They may have employees of their own, but more often engage the services of administrators, trustees and/or portfolio managers to manage the operations of the funds. This is the case for most investment funds. Importantly, the funds themselves are treated as separate institutional units, distinct from the unit managing them. The investment funds pay fees to these service providers and make use of the required human resources to support the funds operations (buying and selling of securities, providing legal, accounting, and other services required to ensure that the fund is operating efficiently). The fund in turn charges a service fee to investors which is equivalent to the amount of operating expenses and is usually reported as an annual percentage of the assets in the fund. In addition, holders of investment fund share/units may be charged with fees on specific transactions such as redemption fees, exchange fees imposed for transferring shares/units within the same fund group or account fees. Both types of fees are treated as payments for services that are provided directly from the original professional providers to the shareholders. Investment funds are thus not treated as providers or consumers of services, and their output and intermediate consumption is equal to zero

Implicit financial services on loans and deposits

33. 11.129 Implicit financial services on loans deposits payable by each of the depositors and borrowers are calculated by using the concept of a "reference" rate of interest. The reference rate to be used in the calculation of actual interest is a rate between bank interest rates on deposits and loans. However, because there is no necessary equality between the level of loans and deposits, it cannot be calculated as a simple average of the rates on loans and deposits. As liquidity transformation services are considered to be part of the implicit financial services on loans and deposits, it is recommended to use a single temporal reference rate, and not two reference rates, distinguishing short-term and long-term loans and deposits. The calculation of the single reference rate should be determined according to domestic circumstances, using any of the following approaches. The reference rate should contain no service element and reflect the risk and maturity structure of deposits and loans. The reference rate will change over time with market conditions;

    A reference rate based on a single observable exogenous rate for a specific instrument, such as interbank lending rates;

A reference rate based on a weighted average of observable exogenous rates of maturities with different terms (weighted by the stock of loans and deposits in each maturity); or

A weighted average of the endogenous interest rates on loans and deposits

34. 11.129-1 As noted before, liquidity transformation is considered to be part of implicit financial services on loans and deposits. Less clarity exists around the inclusion or exclusion of credit default risk. While there is conceptual merit in excluding credit default risk from implicit financial services on loans and deposits, at present many countries are not in a position to do this in a way that ensures reasonable comparability across most countries. Having said that, a number of countries have demonstrated that it is feasible, in their cases, to produce meaningful results and these countries gave compiled estimates of implicit financial services on loans and deposits on this basis. Recognising that these improvements will take some time to materialise, it is recommended that in the interest of maintaining international comparability. Those countries that exclude credit default risk from their estimates of implicit financial services on loans and deposits should also provide supplementary estimates that include credit default risk.

35. 11.134 During periods of volatile movements in reference rates and when liquidity markets begin to malfunction, considerable care should be taken in determining estimates of implicit financial services on loans and deposits. These periods may be characterised by negative estimates of implicit financial services on loans and deposits, particularly for depositors, but also for borrowers. Negative implicit financial ser vices on loans and deposits can also occur owing to measurement error. For example, some large international transactions between banks may be at or near the reference rate, so a small error in measuring the reference rate could cause negative implicit financial services on loans and deposits. This gives rise to interpretation problems, as it is not possible for output to be negative. Therefore, when such incidences occur, countries are encouraged review the applicability of the underlying reference rate for that period to calculate the implicit financial services on loans and deposits. The first, and simplest approach, is that countries consider taking the simple weighted average of the interest rates on loans and deposits for those years with negative implicit service charges for either depositors or borrowers. The second, and slightly more complicated approach, takes the view that during periods when markets are dis-functional, banks may offer financial inducements to attract depositors, meaning that part of what is now typically recorded as bank interest may actually consist of a transfer element. In this approach, during periods of negative implicit financial services on loans and deposits calculated using the conventional approach, the implicit service charges should instead be calculated by assuming trat the margin (implicit financial services as a per cent of deposits or loans) bans charge on deposits or loans is broadly stable over time.

36. 11.134 Negative interest rates may cast doubts on the right reference rates to be used in the calculation of implicit financial services on deposits and loans (see paragraph 12.xx for the discussion on negative interest rates). Further,

negative interest rates raise the risk of negative implicit financial services on deposits and loans as banks may offer interest rates higher than reference rates, to retain depositors. Therefore, compilers should review the reference rate to be used with a view to avoid negative implicit financial services, in coordination with the national accounts compliers.

Charges for the use of intellectual property n.i.e

37. 11.136-1 Intellectual Property products are assets resulting from research, development, investigation, or innovation, leading to knowledge, or the creation of artificial intelligence systems that the developers can market or use to their own benefit in production because use of the knowledge or system is restricted by means of legal or other protection.

Other issues related to intellectual property

38. 11.140-2 In *BPM7,* no distinction is made in the treatment of licenses to use and licenses to reproduce based on whether they will be used in production for more than one year or less, and where the license assumes risks and rewards of ownership. The concept of the sale of part of the original also does not exist in *BPM7.* However, it is acknowledged that such a distinction helps in harmonising the cross-border IPP related transactions with distinction between fixed capital formation/intermediate consumption in national accounts. Therefore, the [updated MSITS] will include additional details through Extended Balance of Payments Services Classification (EBOPS) for aligning trade in IPP related services items with fixed capital formation/intermediate consumption categories in national accounts.

Computer and information services

39. 11.143. Additions to list of computer services from *BPM6*

(o) artificial intelligence (AI) (27) systems such as virtual assistants, chatbots (28), speech/image recognition, smart home devices;

(p) software applications facilitating online meetings and video conferencing;

(q) cloud computing services (i.e. computing, data storage, software and related ICT services accessed remotely over a network, supplied on demand and with measured resource usage). See paragraphs 6.xx for additional details;

(r) validation of transactions relating to crypto assets (provided by miners/validators) including the provision of such services as part of a pool of miners or through cloud computing facilities. See Box 11.xx for additional details.

(27) AI is classified as a special type of software even though AI systems frequently include data and hardware elements, because the system is controlled by software even when these

elements are present. However, the equipment that contains an embedded AI system (or other embedded software) is still classified as goods (see Section B.3, Chapter 16 for additional details on AI).

(28) A software application designed to simulate human conversation and interact with users via text or voice, often powered by rules, artificial intelligence, and natural language processing to provide automated responses and perform tasks. Chatbots range from simplistic models that operate off scripts to provide quick responses to specific questions, to artificial intelligence (AI) models that can converse with users and complete more complex tasks.

Box 11.x Validation of Crypto Asset Transactions

Validation of crypto assets is a service. Crypto assets without a corresponding liability designed to act as a medium of exchange are considered as nonproduced nonfinancial assets and recorded within a separate category in the capital account *see paragraph 14.xx). The miners solving cryptographic puzzles for validating the transactions in these assets on the blockchain are producers of validation services.

Most mineable crypto assets without a corresponding liability come into circulation via the work of miners that solve cryptographic puzzles (proof-of-work) and validate transactions on the blockchain. Non-mineable crypto assets without a corresponding liability and crypto assets with a corresponding liability (e.g. stable-coins) may be released via an explicit sale and/or as payment to validators that validate transactions in different ways than via proof-of-work (e.g. via proof pof stake).

The services of miners/validators should be measured as the sum of both explicit validation fees and implicit fees. The explicit fee in crypto assets is paid by the party initiating the transaction.

The implicit fee (newly released crypto assets/staking rewards) is assumed to be collectively consumed by the existing holders of units of that crypto asset (these concern multiple institutional units that may be spread across a wide range of countries), while those reward by the explicit fee are consumed by the transactor paying the fee.

The following example explains the recording of transactions associated with validation services. For additional guidance and examples refer to [*Compilation Guidance on Crypto Assets.*]

An entity in economy A is providing validation services of transactions in crypto assets without a corresponding liability for transactions originated in Economy B. The Economy B consumer pays a transaction fee of 10 in crypto assets. In addition, the Economy A entity receives 15 in crypto assets as implicit fee. The following entries are recorded in the balance of payments of Economy A.

Services Account
Computer services (credits/revenues) – implicit fee (15) + explicit fee (10) = 25

Capital Account

Acquisition/disposal of nonproduced nonfinancial assets/Crypto assets without corresponding liabilities (debits/expenditures) = 25

Information Services

40. 11.146 Information services include news agency services, such as the provision of news, photographs, and feature articles to the media. Information services also include outright sale of data and related services such as – compilation of information content produced by accessing and observing phenomena, database conception, entering and maintaining data in databases, data storage, and the dissemination of data and databases (including directories and mailing list), both online and through magnetic, optical , or printed media; web search portals (search engine services that find information for clients who input keyword queries) and services of chatbots that provide summarised information or translation for the questions of clients on a wide range of topics. Also included are direct nonbulk subscriptions to newspapers and periodicals, whether by mail, electronic transmission, or other means; other online content provision services; and library and archive services. (Bulk newspapers and periodicals are included under general merchandise.) Downloaded content that is not software (included in computer services) or audio and video (included in audio visual and related services) is included in information services.

Trade related services

41. 11.150-1 Trade-related services cover fees related to nonfinancial intermediation services, such as commissions on goods and service transactions payable to merchants, commodity brokers, dealers, auctioneers, and commission agents. For example, these services include the auctioneer’s fee or agents commission on sales of ships, aircraft and other goods. Fees paid to non financial intermediation platforms, including digital intermediation platforms, are also included in trade-related services. Nonfinancial intermediation platforms, including digital intermediation platforms facilitate, for a fee, the direct interaction between multiple buyers and multiple sellers, without the platform ever taking economic ownership of the goods or rendering the services that are being sold (intermediated) (see paragraphs 16.xx-xx for further details on nonfinancial digital intermediation platforms). If the trader owns the goods being sold, the trader’s margin is generally included indistinguishably in general merchandise FOB (if the goods pass through the economy of the trader) or under goods under merchanting (otherwise). However, any fees not included in the FOB price of the goods are included in trade-related services. Brokerage on financial instrument and fess related to financial digital platforms that intermediate funding or payment transactions are excluded from trade-related services (included in financial services).

Operating leasing services

42. 11.156 Operating leasing services cover leasing (rental) and charters of ships, aircraft, and transport equipment, such as railway cars, containers, and rigs, without crew. Also included are operating lease payments relating to other types of equipment without an operator, including computers and telecommunications equipment. License payments for the right to use intangible produced, such as software, intellectual property and so forth are included under specific headings (computer services, charges for the use of intellectual property n.i.e, etc) rather than operating leasing. Also excluded from operating leasing services are leasing of telecommunications lines or capacity (included in telecommunications services) and rental of ships and aircraft with crew (included in transport services).

43. 11.156-1 In some instances, MNEs may establish special purpose entities (SPEs) for undertaking operating and financial leasing arrangements within the group companies. For example, SPEs may hold assets such as planes and lease then to parent company under operating lease. In such cases SPEs remain separate institutional units from their nonresident parents and responsible for the immediate risks and rewards of the assets they own/lease. Therefore, such captive arrangements should be treated as operating lease following the guidance provided in paragraphs 11.154. See Special Purpose Entities: Guidance for a Data Template and Section C.2 Chapter 15 for further information on the typology and description of SPEs including those engaged in captive financial and operating leasing.

44. 11.156-2 Two main types of leasing arrangements, largely prevalent in the aircraft industry, are elaborated further:

Wet leasing *covers provision of an aircraft, complete crew, maintenance, and insurance for which payment is by hours operated, which is normally used for short-term leasing (for balance of payments purposes recorded under transport services); and

Dry leasing (covers provision of aircraft without insurance, crew, ground staff, supporting equipment, maintenance, etc.), which is more usual for the longer-term leases and is recorded, for balance of payments purposes, under operating leasing services (32). The aircraft industry also uses combinations of wet and dry when, for example, the aircraft is wet leased to establish new services and then, as the airlines flight or cabin crews become trained, they ate switched to a dry lease.

(32) Dry leasing could be considered as a special kind of operating lease, where the lessor remains the economic and legal owner, but the expenses on insurance, repair and maintenance are the responsibility of lessee. In practice, it may be difficult to know whether such lease is financial or operational. Invoices issued by the lessor is one of the useful sources for distinguishing between financial and operating leases. Typically, for an operating lease, an invoice includes an amount of a single payment whereas for financial lease, the invoice provides information about the amount of principal and interest separately. See Box 8 *Eurostat's Handbook on the compilation of statistics on sea and air transport in national accounts and balance of payments,* for additional guidance.

Technical and other business services

45. 11.158-1 Technical and other business services include:

(a) Architectural, engineering, scientific and other technical services (discussed further in paragraph 11.158-2);
(b) Waste treatment and depollution, agricultural, and mining services (discussed further in paragraph 11.158-3); and
(c) Other business services (discussed further in paragraph 11.159)

Architectural, engineering, scientific and other technical services

46. 11.158-2 Architectural services include transactions related to the design of buildings. Engineering services include the design, development and utilisation of machine, materials, instruments, structures, processes and systems. Services of this type involve the provision of designs, plans and studies related to engineering projects. Mining engineering is excluded and included instead in waste treatment and depollution, agricultural and mining services (see paragraph 11.128-3). Scientific and other technical services include surveying, cartography, product testing and certification and technical inspection services.

Waste treatment and depollution, agricultural, and mining services

47. 11.158-3 Waste treatment and depollution services include waste collection and disposal, remediation, sanitisation, and other environmental protection services. They also include environmental services, such as treatment or air pollution, carbon capture and storage services that are not classified under any more specific category.

Chapter 11 Changed Paragraphs

Paragraph	Old Paragraph	New Paragraph
11.59	For example, when a company contacts another (specialist) company to provide services that were previously internal company functions. This arrangement may be called “outsourcing”. Services that are “outsourced” that is where a company contracts another (specialist) company to provide services that were previously internal company functions, such as billing services or information “help” services service provider should be classified to the appropriate services item. Services supplied by “call centres” and similar types of operations should be	11.59 Business and other services, such as transport, construction, and computing, may be subcontracted, that is, when a company contracts another (specialist) company to provide services that were previously internal company functions, this arrangement may be called “outsourcing”. Services that are subcontracted or outsourced should be classified to the appropriate specific services item, such as transport, construction, computing, or technical and business services (see paragraph 10.75 for transport). The value of services exported and

	classified according to the type of service provided. For example, call centres selling products are included in trade-related services, whereas call centres providing computer support are included in computing services.	imported in the economy of the service arranger is recorded on a gross basis. (This treatment is applicable because the arranger buys and sells the services; if the arranger acted as ana agent on a commission basis, then only the commission would be recorded as the service provided by the arranger – see paragraph 11.150-1). However, if the activity is significant for an economy, net data could be provided on a supplementary basis. Services supplied by “call centres” and similar types of operations should be classified according to the type of service provided. For example, call centres selling products are included in trade-related services, whereas call centres providing computer support are included in computing services.
11.62	*Manufacturing services on physical inputs owned by other cover processing, assembly, labelling, packing, and so forth undertaken by enterprises that do not own the goods concerned.* The manufacturing undertaken by an entity that does not own the goods and that is paid a fee by the owner In these cases, the ownership of the goods does not change, so no general merchandise transaction is recorded between the processor and the owner.	*Manufacturing services on physical inputs owned by other cover processing, assembly, labelling, packing, and so forth undertaken by enterprises that do not own the goods concerned.* The manufacturing undertaken by an entity that does not own the goods and that is paid a fee by the principal (processing arrangements, see paragraphs 10.xx.xx). In these cases, the ownership of the goods does not change, so no general merchandise transaction is recorded between the processor and the principal (see Figure 10.1). Manufacturing services on physical inputs owned by others is distinguished from factoryless goods production in which the processor acquires ownership of the goods. See Section D Chapter 10 for additional details.
11.72	Maintenance and repair services n.i.e. cover maintenance and repair work by residents on goods that are owned by nonresidents. The repairs may be performed at the site of the repairer or elsewhere. Repairs and maintenance of ships, aircraft, and other transport equipment are included in this item. Cleaning of transport equipment is included in transport services. Construction maintenance and	Maintenance and repair services n.i.e. cover maintenance and repair work by residents on goods that are owned by nonresidents (credit) and that by nonresidents on goods that are owned by residents (debit). Maintenance and repair services ni.e. cover both minor repairs that maintain the good in working order and major repairs that extend the efficiency or capacity of the good or extend its life. No distinction

	repairs are excluded; they are included under construction. Maintenance and repair of computers are included under computer services.	is made between those repairs included by the customer in intermediate consumption and those in capital formation. The repairs may be performed at the site of the repairer or elsewhere. Repairs and maintenance of ships, aircraft, and other transport equipment are included in this item. Cleaning of transport equipment is included in transport services (see paragraph 10.80). construction maintenance and repairs are excluded; they are included under construction. Maintenance and repair of computers are included under computer services.
11.86	11.86 *Travel credits cover goods and services for own use or to give away acquired from an economy by nonresidents during visits to that economy. Travel debits cover goods and services for own use or to give away acquired from other economies by residents during visits to these economies.* The goods and services may be purchased by the persons concerned or by another party on their behalf. For example, business travel may be paid or reimbursed by an employer, tuition and living costs of a student may be paid by a government, or health costs may be paid or reimbursed by a government or insurer. Goods and services supplied by the producer without charge are also included, such as tuition and board provided by a university.	11.86 *Travel credits cover goods and services for own use or to give away acquired from an economy by nonresidents during visits to that economy. Travel debits cover goods and services for own use or to give away acquired from other economies by residents during visits to these economies.* The goods and services may be purchased by the persons concerned or by another party on their behalf. For example, business travel may be paid or reimbursed by an employer, tuition and living costs of a student may be paid by a government, or health costs may be paid or reimbursed by a government or insurer. Goods and services supplied by the producer without charge are also included, such as tuition and board provided by a university. In addition, goods and services provided free to nonresidents by government and NPISHs of the economy they are visiting known as social transfers in kind (e.g. free health services received by a foreign tourist from a hospital within general government) should be imputed and recorded under travel.
11.94a	health-related (e.g. medical services, other health care, food, accommodation, local transport, acquired by those travelling for medical reasons).	health-related travel (e.g. medical services, other health care, food, accommodation, local transport, acquired by those travelling for medical reasons). The scope of "medical reasons" for health-related travel is consistent with "health and medical care" from the *International*

		Recommendations for Tourism Statistics 2008 (IRTS 2008). Health and medical care cover services received from hospitals, clinics, convalescent homes, health and social institutions, thalassotherapy, health and spa resorts, other specialized places to receive medical treatments based on medical advice, as well as cosmetic surgeries using medical facilities and services (see paragraph 3.17 *IRTS 2008*)
11.94c	all other personal travel. This component includes health expenditure by those not traveling for health or educational purposes.	all other personal travel. This component includes health expenditure by those not traveling for health or educational purposes. In addition, travel expenses of companions of patients, education-related travellers, and those traveling on short-term work or other business are included in this component, treating companions as normal travellers.
11.118	Financial services cover financial intermediary and auxiliary services, except insurance and pension fund services. These services include those usually provided by banks and other financial corporations. They include deposit taking and lending, letters of credit, credit card services, commissions and charges related to financial leasing, factoring, underwriting and clearing of payments. Also included are financial advisory services, custody of financial assets, or bullion, financial asset management, monitoring services, liquidity provision services, risk assumption services other than insurance, merger and acquisition services, credit rating services, stock exchange services and trust services.	Financial services cover financial intermediary and auxiliary services, except insurance and pension fund services. These services include those usually provided by banks and other financial corporations. They include deposit taking and lending, letters of credit, credit card services, commissions and charges related to financial leasing, factoring, underwriting and clearing of payments. Also included are financial advisory services, custody of financial assets, crypto assets or bullion, financial asset management, monitoring services, liquidity provision services, risk assumption services other than insurance, services of foreign exchange bureaus and money transfer operators merger and acquisition services, credit rating services, stock and crypto exchange services and trust services. Financial services enabled by Fintech (18) including those facilitated by financial digital platforms such as payment services, peer to peer lending services, crowd funding platform services and other financial services such as capital raising/investment management are included under this

		category without introducing new services categories. Nevertheless, if a country has a strong need to identify the financial services provided through fintech, introducing an "of which" category may be considered. See Section E Chapter 16 for the discussion on digitisation and financial system.
11.159	Other business services related to water, steam, gas and other petroleum products and air-conditioning supply, where these are identified separately from transmission services; placement of personnel, security and investigative services; translation and interpretation; photographic services; publishing; building cleaning; and real estate services. Also included are forfeited payments not able to be specified to any other services.	Other business services related to water, steam, gas and other petroleum products and air-conditioning supply, where these are identified separately from transmission services; placement of personnel, security and investigative services; translation and interpretation; photographic services; publishing; building cleaning; and real estate services. In addition, services provided by fee-based digital platforms that facilitate interactions between users other than transactions in goods and services or financial transactions (e.g. online dating and matrimonial platforms) are included (see paragraph 16.xx). Also included under other business services are forfeited payments not able to be specified to any other services.
11.163	Included are amounts receivable or payable for rentals of audiovisual and related products and charges for access to encrypted television channel (such as cable and satellite services). Fees to actors, directors, and producers involved with theatrical and musical productions, sporting events, circuses, and other similar events are included in this item (unless they are employees of the entity making payments, in which case the transactions are classified as remuneration of employees).	Included are amounts receivable or payable for rentals of audiovisual and related products and charges for access to audio and video streaming services, encrypted television channel (such as cable and satellite services). Fees to actors, directors, and producers involved with theatrical and musical productions, sporting events, circuses, and other similar events are included in this item (unless they are employees of the entity making payments, in which case the transactions are classified as remuneration of employees). The users of free online platforms (which are mostly organised as commercial enterprises) may create content such as videos, images, text, and audio, and make them available on the platforms. If the content creator receives remuneration from an advertiser or platform for use of their uploaded content, it should be

		recorded as supply of audio-visual related services to the platform (see paragraphs 16.xx.xx for additional details on free online platforms)
11.179	Services supplied by and to government should be classified to specific services (business services construction, health etc), if possible/ For instance. Acquisition of new and existing buildings for an embassy consulate, and so forth is classified as construction, rather than government goods and services n.i.e (see paragraph 11.108). However, some services are related to government functions that are not able to be classified to another specific service category, so are classified as government services n.i.e. For example, technical assistance on public administration is included in government services/ Also, payments for police type services (such as keeping order), such as those supplied with mutual agreement by foreign government or international organisation, are include in government services n.i.e. Additionally, government supply of licenses and permits that are classified as services (as discussed in paragraphs 11.180) are also government services n.i.e Box 11.6 covers issues associated with technical assistance.	As far as possible, only items corresponding to CPC division 91 (public administration and other services provided to the community as a whole; compulsory social security services) and CPC division 99 (services provided by extraterritorial organisations and bodies) need to be included within this category to ensure harmonisation with the System of national Accounts. Services supplied by and to government (other than those related to government functions) should be classified to specific services (construction, health etc), if possible/ For instance. Acquisition of new and existing buildings for an embassy consulate, and so forth is classified as construction, rather than government goods and services n.i.e (see paragraph 11.108). However, some services are related to government functions that are not able to be classified to another specific service category, so are classified as government services n.i.e. For example, technical assistance on public administration is included in government services/ Also, payments for police type services (such as keeping order), such as those supplied with mutual agreement by foreign government or international organisation, are include in government services n.i.e. Additionally, government supply of licenses and permits that are classified as services (as discussed in paragraphs 11.180) are also government services n.i.e Box 11.6 covers issues associated with technical assistance.
11.18	One of the regulatory functions of governments is to forbid the ownership or use of certain goods or the pursuit of certain activities, unless specific permission is granted by issuing a license or other certificate for a fee. If the issue of such licenses	11.180 One of the regulatory functions of governments is to forbid the ownership or use of certain goods or the pursuit of certain activities, unless specific permission is granted by issuing a license or other certificate for a fee. As indicated in paragraph

	involves little or no work on the part of the government, the licenses being granted automatically on payment, it is likely that they are simply a device to raise taxes, even though the government may provide some kind of certificate, or authorisation in return. However, if the government uses the issue of licenses to exercise some proper regulatory function, such as checking the competence or qualifications of the person concerned, checking the efficient and safe functioning of equipment, or carrying out some other form of control that it would otherwise not be obliged to do, the payments made should be treated as purchases of services from government rather than payments of taxes, unless the payments are clearly out of all proportion to the costs of providing the services.	13.30, if a payment for a license is compulsory and the license is not transferable then the payment is generally considered a tax. However, under limited scenarios, such as when it can be demonstrated that the payment is required and a service commensurate to the payment is consumed by the individual, the payment should be recorded as a sale of service (34).

UK Statistics Authority

2024Q4 Three quarter programme of topics for NSCASE

2025Q2 (April)

[This agenda is a provisional agenda pending the need for advice being confirmed by ONS and ensuring the ONS has the sufficient resource to bring the items forward]

Update from UNSC

Globalisation

- Global supply chains and treatment of Multinational Enterprises (MNEs) and intra-MNE flows
- Definition and treatment of Special Purpose Entities (SPEs)

Digitalisation

- Digital intermediary platforms,
- “Free” Digital services
- Digital Supply and Use tables.

2025 Q3 (July)

[This agenda is a provisional agenda pending the need for advice being confirmed by ONS and ensuring the ONS has the sufficient resource to bring the items forward]

TBC