National Statistician's Committee for Advice on Standards of Economic Statistics

NSCASE(25)03

Deviations from International statistical guidance – International Feedback on SNA 2025 Supplementary Chapters – Advice

Executive summary

1. During its review of recommended deviations from international statistical guidance in January 2025, NSCASE noted the omission of global consultation comments covering SNA 2025 Chapters 21 to 39. In order that NSCASE can complete the review of all potential areas of deviation, the Committee requested that these global comments be scheduled for review at its April meeting, along with comments covering Chapters 14 and 18.
2. NSCASE will consider the global comments provided by other NSIs and multilateral statistical agencies on the supplementary chapters of SNA 2025, to ensure that the National Statistician's is fully briefed on potential deviations, ahead of ONS's implementation of SNA 2025.
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:
   i. **Any areas of potential deviation from SNA 2025, arising from the Committee's review of global comments from Other National Statistical Institutes and multilateral agencies, on SNA 2025 Chapters 14, 18 and 21 to 39.**
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 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 complete its review of potential areas of deviation from SNA 2025 NSCASE has decided to review the remaining global consultation comments, covering Chapters 21 to 39. The purpose of this review will be to make certain that all potential areas of deviation from statistical guidance are identified ahead of ONS's implementation of SNA 2025.
10. To aid this review, Annex A contains the global responses to the supplementary draft SNA 2025 chapters. As previously outlined, the supplementary chapters comprise the main sector accounts, namely chapters 21 through to 39. Global comments covering Chapters 14 and 18 are included in this current review, as the Committee were not able to cover these chapters at its January meeting.
11. 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.
    i. We accept deviation where the manual does not well describe the UK experience (e.g. treatment of non-monetary gold)
    ii. We accept deviation where the UK has developed implementation methods which already adequately account, or surpass SNA guidance (e.g. Well being)
    iii. We accept deviation where UK methods development has given us sufficient confidence to implement (e.g. Unit Value Index uses)
    iv. 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.

ONS Concerns

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

List of Annexes

Annex A Global Comments on the draft core SNA Chapters (14, 18 and 21-39)

Annex A   Global comments on the draft core SNA Chapters (14, 18 and 21- 39)

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 capital consumption of fixed capital (in the case of fixed assets) or other forms of depreciation deterioration 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.

Separation of values for different functions of land

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 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.

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 21: Communicating and Disseminating Macroeconomic Statistics

Eurostat

Box 21.4: Thematic accounts such as health, tourism, sport, etc. in Europe do not necessarily operate within the NA framework, although links are frequently strong. Also supplementary accounts such as environmental accounts do not operate within the functional classification used in NA. This should be changed or at least footnoted.

21.86 The paragraph indicates good intentions: "specific unique codes are shown where applicable". **However, while some introduction of codes was observed in some chapters, this is unfortunately not consistently applied at all. Please refer to comments on other chapters. The absence of codes (coupled with inconsistently applied changes in terminology; in chapter 30 a continued mix of GFSM terminology and presentation) impedes the clarity of the text and leads to imprecisions. The codes should consistently accompany the SNA terms. This also ensures that errors in the text are easily spotted.**

Are P for portfolio investment, D for direct investment and F for derivatives really codes that should be inserted in SNA text? Then they have a double use..

21.88 uses abbreviations, rather than codes, this should be avoided in a chapter that covers terminology and its associated codes.

Unfortunately, there is no Annex to the chapter listing all the codes used. This should be inserted (sectors, product transactions, distributive transactions, balancing items, balance sheet - assets, industry, functional classifications, ...).

Table 21.7:

both depreciation (which is now difficult to distinguish from depreciation in business accounts, yet the clear distinction is important for internal and external communication reasons, see comment by Sweden, Michael Wolf) and depletion are "code to be confirmed", so it is not clear what is being consulted on.

For P.51c, it would be a pity to change the code yet again, in absence of any methodological change (code was changed from K.1 to P.51c in the previous update, so we hope that some stability could be achieved.

For depletion, we fail to see the link with P.51; there is no AN.1 link.

Table 21.8a:

As commented previously, we think that it is **unfortunate that use/resource is replaced by expenditure/revenue** - in European countries, we have been using total expenditure/total revenue to describe the European GFS presentation since 2000. In COFOG, a similar notion than total expenditure is used by countries, including those outside Europe. The mess this causes can be observed inter alia in chapter 30, please refer to our comments there.

Additionally, the term "income and expenditure accounts" for the accounts above the capital account creates further confusion with the new concepts for the side of the non-financial accounts.

The term "net social contributions" was new in 2008 SNA, even in 2008 SNA, it is not consistently applied, but it was warranted by methodological change, and now yet a new term was proposed, in absence of methodological change. Given that the terms are not consistently applied, this does not improve clarity and the cost of changing should not be underestimated in comparison to rather small potential benefits.

The naming of transfer income account is not applied in any way consistently within chapter 21 and across other chapters - but in most cases it is changed from its old name....

Para 21.65 vs Box 21.2: the text refers to “comprehensive revision”, while Box 21.2 refers to “comprehensive update”. One formulation should be chosen for both.

Table 21.7: NDP is defined as GDP-Depreciation-Depletion. Is it envisaged to have another net measure according to the 2008 SNA definition, i.e. GDP-Depreciation? Some users could want it!

Germany FSO

21.77 - 21.78 + Box 21.4 – considering the integrated framework, the product taxonomy includes only the sequence of economic accounts. “Other parts of the integrated framework”: SUTs, Labour market tables, capital service table, FWTW tables, data in tables classified using functional classification, accounts in volume terms, … are missing (see Ch3).

It is not clear where these tables & accounts belong under the taxonomy given in Box 21.4, as they do not fit to any category in this Box 21.4, i.e., the Box 21.4 should be completed to clearly show where all these above mentioned tables/accounts belong (in the taxonomy of products within the overall framework).

In addition, we wonder where household distributional accounts (accounts for the distribution of household income, consumption and wealth) belong in Box 21.4, under thematic accounts, as in Ch38? In any case, they should be included in an appropriate section in the Box 21.4.

Israel

21.8 "(e.g., from printed releases to the use of social media)" could be changed to: (e.g., from printed releases on paper to distribution in various forms on internet sites, including the use of social media). Or par. 21.11 could be moved and appear right after 21.8, since it explains the same issue.

21.11 " With new technologies, the publishing capability should support digital dissemination. This will require setting appropriate standards and policies; support for mobile devices without undermining conventional release modes;.. " This sentence could be changed. The technologies are not so new now, and some standards are already in place.

1. Other changes reflected within the [2025 SNA]/[BPM7]

The sentence "This section is likely to appear in one of the Annexes to the 2025 SNA and BPM7 and not in this chapter as appropriate" is not so clear – why is it not an annex now? Is the section not final?

OECD

Box 21.4: It is not fully clear how this terminology links to what is presented in Figure 2.1, i.e., does Figure 2.1 also include supplementary accounts.

21.88: How do the “other additional tables” link to the overview presented in Box 21.4. Would this be an additional category?

21.80: The definition of accounts may differ from how the SEEA is looking up accounts, as many SEEA accounts do not have balancing items.

Chapter 22: Digitalisation

The comments below deal only with sections on digital financial instruments and the financial sector (mostly Section D).

Chapter Introduction – I propose a short new paragraph near the top of the chapter saying new digital financial instruments open major new statistical possibilities that deserve specific mention.

“New 22.3 or new 22.79 A wide variety of new digital financial payments methods and instruments have major statistical implications in their roles as financial counterparts to transactions in goods and services or to establish claims on nonfinancial assets. Among major new digital payments systems are central bank digital currencies (CBDCs), stablecoins, tokenized deposits, bitcoin and numerous ‘altcoins’, instant payments systems (IPS), decentralized depositing and lending facilities (DeFi), and bank credit and debit instruments available digitally, etc.. These and other instruments can potentially be tracked (at various levels of aggregation or anonymization) for information on financial sector activity, on corresponding transactions in goods and services, and financial claims on real assets, etc.”

Comment 1 – Central banking boundaries in a digital world

As stated elsewhere in the draft SNA text, central banks have a special status and do not undertake traditional intermediation services, but engage in monetary policy actions and other public functions (financial supervision, operating payments services, etc.). As a consequence, central bank output is measured by the sum of costs, not by estimates of implicit intermediation services.

This treatment is correct with regard to the central bank, but important changes in financial markets are blurring boundaries between traditional central banking and commercial banking and payments systems.[1] Many of the changes are related to digitalization of financial markets in which (1) private bank and nonbank payments platforms seek to take on monetary roles, and (2) central banks respond in part by entering into new digital financial retail activities. As cash use has slumped globally and private payments systems surged, central banks have taken on more retail functions, such as creating CBDCs as a cash alternative, creating near hybrid CBDC-private stablecoin instruments, allying with private enterprise service providers or issuers of crypto financial instruments. The public’s perceptions, as well as those of monetary and regulatory authorities, can be uncertain about what is public/central banking or private. Moreover, many providers of money-like services are nonresident. The field is moving very fast and national practices are highly diverse. In this mix, where all the possible IUs end up being classified either as central bank or other remains to be seen – this is a key area to follow to ensure SNA practices keep up with market changes.

Comment 3 – NFTs

Paragraphs 22.39 and 22.42 refer to 3 classes of NFTs, including one class in which the NFT 'conveys full ownership rights'. Thus, they are effectively financial instruments 'distinct' from the underlying asset or product. Is the distinction between such NFTs and a deed solely that the NFT is digital and is recorded in a DLT platform? How do they differ from tokens (which are digital and tradable)? How do they differ from securities? (As an aside, in Islamic finance, some financial instruments convey ownership to underlying assets – if in a digital forms, are these NFTs, or securities or tokens?)

Would it be productive to have two categories for NFTs; (1) collectables and valuables, and (2) financial NFTs and tokens?

Comment 4 – Reporting gaps: Omissions or Evasions? Digital financial innovations are moving fast, often outrunning regulations and statistical reporting methods. Gaps exist, data collections lag, and errors and omissions can be expected under the best of circumstances. Numerous statistical innovations will be needed. New situations might arise that are not covered in the Chapter 22 guidance or prove misleading.

Moreover, perversely, many digital platforms, instruments, services are illicit in nature and deliberately avoid reporting; many of these are cross-border. There are legitimate public reasons (consumer protection, tax collection, crime prevention, etc.) to monitor this activity – sometimes by following digital trails. Some information on the underground activities might be generated, but could be very difficult to use for statistical purposes. Special surveys might be made, or real side effects might be observable in errors and omissions data, etc. which might allow some imputations to be made.

Addressing the gaps might be suitable material for a Compilation Guide, possibly leading to some modifications of the new SNA standards. It's not too early to begin thinking in such terms.

Comment 5 – Tokens

Paragraph 22.85 discusses 'security crypto assets' that are described as "tokens certifying ownership of a financial instrument. They always have a corresponding liability and should be recorded as debt securities, equity securities, or financial derivatives depending on the nature of the claim on the issuer."

Tokens are tradable digitized instruments providing rights over an underlying asset. They are likely to become one of the most important digitalization developments and must be followed.

First, many financial institutions, central banks, and international financial organizations are actively investigating or implementing various tokenization schemes; thus, their statistical tracking will be critical.

Second, the paragraph should be amended to state that nonfinancial assets can also be tokenized. As tradable instruments, this *potentially* means that virtually any asset (financial or nonfinancial) can be turned into a security or equity – which could have immense economic effects. (Whether this happens is uncertain – regulators and legislators might have something to say about it.)

Third, mobilization of all sorts of assets as tradable tokens could have major effects of financial markets in general and on perceptions of money and value – defining money and developing policy will be a challenge.

Fourth, tokenization might also be mentioned in Chapter 26 (Islamic finance), paragraph 62 on Islamic sukuk securities, which also might develop into tokenized forms.

Parenthetically, in a comment on this same paragraph (22.85), Sekiguchi also endorses the security crypto assets classification described in the draft. However, he argues against a further breakdown of fungible cryptoassets into those as a general medium of exchange against those within a platform or network. He suggests that the distinction might become dated as future technologies could increase interoperability between platforms. I have some sympathy for his argument – there is a high demand for interoperability and easy exchange of digital instruments – technology seems to be going that way. In contrast, there are many *proprietary* coins and platforms that serve individual companies or meet market or regulatory requirements – these can transfer value within boundaries without intent or likelihood of becoming generally usable instruments. Perhaps this description falls between what the draft and Sekiguchi are thinking. (For some statistical implications of proprietary platforms, see comment on paragraph 22.78 above.)

Regardless of these early thoughts here, tokens will be a major focus of innovation and market impact and there will be much to follow. Statistical standards will have to evolve in parallel.

Comments on Section D: Digitization and the Financial System

22.78 Add to end of first sentence “or act as a store of value.”

Add to end of second sentence “or one of a wide variety of new electronically transferrable digital financial instruments.”

Bravo for the reference in line 4 to a thematic account on the digital economy. It’s necessary!

Paragraph 22.78 recommends an *of which* item to denote digital instruments within the major financial instrument categories. CBDCs are specifically mentioned. However, two types of CBDCs exist that have different functions and behaviors; ‘retail’ CBDCs are a cash equivalent for general public use, and ‘wholesale’ CBDCs are transferrable assets of the central bank used between central banks and financial institutions. The two instruments behave differently, affect different markets, and a simple comparison between counties of CBDCs classified within a single *of which* line might not be meaningful.

Within the next to last sentence, insert ‘decentralized digital depositing and lending platforms (DeFi)’.

In the last sentence, following the words ‘crypto assets” insert within the parentheses ‘stablecoins, digital tokens, and more’.

At the end of the paragraph, insert the sentence, “Many digital platforms and coins are proprietary and dedicated for use by a specific firm or consortium – for statistical purposes, research will be needed whether the digital operations are secondary to the primary business of the firm or have changed the fundamental nature of the business, whether the operation is spun off as a separate captive institutional unit, if it is internal to the firm or allows access by the firm’s customers.”

Finally, add that many digital operations can be partially or totally cross-border.

New 22.79 The first comment to this note is a draft paragraph that might be inserted either as a new paragraph 22.4 or as a new 22.79.

Existing 22.79 can add to the list at the end, ‘Also, tokens are tradable digital financial instruments that convey rights to either financial or nonfinancial assets.”

22.80 Instant payment systems (IPS) could be operated either by the central bank or as a separate IU classified as a financial auxiliary, which appears to be the option used here.

Other Comments

22.23 add a reference to AI discussion in section 3.

[1] See Krueger *CBDCs: Work in Progress* (2024) for more on CBDCs and blurring between CBDCs and other private payments instruments such as stablecoins or tokens,

Eurostat

Paras 22.21 – 22.32 provide what could be considered the definitive discussion of the nature and treatment of Data, and should be used as the source for text when Data has been introduced into other chapters, e.g. para 8.172, and paras 11.114 – 11.118.
Chapter 22 helpfully references chapters 11, 12, 13 and 14 regarding CAWLM. It would be useful to add cross-references from those chapters to relevant parts of chapter 22.

Para 22.29: “… this treatment should not be taken to imply that permission to collect a subject’s license data confers access to a non-produced, nonfinancial asset, as specified in the definition of a rent in paragraph 8.17”. This text is not clear. It should be reviewed to improve clarity.

OECD

22.6: To avoid confusion, we suggest to rephrase the first sentence into E-commerce transactions are equivalent to digitally ordered transactions.

22.24: Does the last step also concern the use to tune advertisement to specific (groups of) users and use of data as input to develop or train AI? It is currently only referring to extracting insights and knowledge.

22.44: Reference is made to the fact that platform differ from other producers operating digitally". However, the latter are not defined anywhere in the text, so this may lead to some confusion. A solution could be to add a definition or to refer to the Handbook on Digital SUTs where people can find more information.

22.48: We suggest adding that fees can be explicit or implicit, i.e., "the output of a DIP consists of digital intermediation services, which are recompensed through an explicit or implicit fee."

22.49: We suggest to add that the case discussed here is that of explicit fees (which would also nicely link to the next paragraph, i.e., 'Handling the case when the platform's fee is implicitly included in the price of the intermediated product…'), i.e., "Nonfinancial DIPs often charge implicit fees by accepting buyers' payments for the goods and services produced or sold by platform users and deducting their intermediation service fee from the amount passed through to the producer/seller."

22.83: Medium of exchange is defined as a means for acquiring nonfinancial assets (goods, merchandise equipment, etc.), services, and financial assets without resorting to barter. The reference to 'nonfinancial assets' may be somewhat confusing as not all goods that may be purchased with crypto are assets. It may be better to talk about "goods (including nonfinancial assets), services and financial assets".

22.112-22.113: It may be considered to add a reference to the Digital SUTs handbook where people can find more information on the definition of these categories.

22.81: I agree that the funds advanced to project owners on reward-based platforms do not qualify as loans, as the project owner's obligation to supply the reward is contingent on the successful completion of the project, but should it be recorded as a different type of asset (e.g., option or a form of equity)? Or is it fully a contingent liability? And what happens if the project is successful? Does this lead to the creation of an other accounts payable/receivable? Some more text may be useful here.

22.87: "All types of crypto assets are within the SNA asset boundary." Is this true? Some types of NFTs are not regarded as an asset, correct? Maybe reference should be made to all fungible crypto assets that are within the asset boundary?

22.98: It is stated that "Normal obsolescence causes the volume of a data asset to decay". However, should this be 'value' instead?

United Arab Emirates FCSC

The emergence of new economic activities due to technological advancements, consumer behavior shifts, and changes in work and business management, including digital and platform economies, gig work, freelancing, and remote work. Contemporary issues like digitalization and globalization are addressed, including the compilation of data-intensive SUTs (Supply and Use Tables).

USA Bureau of Economic Analysis

22.23: The text should be consistent in the way it refers to data and databases without limiting the definitions to the subset of data assets or database assets. Rather than referring to database assets, I would suggest replacing with databases to make it consistent with data.

22.23-22.25: It suggests an inconsistency by 22.23 mentioning that the DBMS is not included in databases (under software) and that databases do not include the underlying data. In 22.24, it mentions examples of the valuation of data being embedded in other fixed asset IPPs which would suggest that that should be treatment for database assets. 22.25 somewhat bridges the two and tries to clarify the treatment but seems like rewording the text would make it clearer from the start.

22.26: The costs for data assets include the tasks of recording strategy, collection/record, but also the cleaning, storage, and organizing (e.g., database portion of the data and databases).

22.30: Would be good to include the full criteria for assets in addition to the service life the continuous/repeatedly use.

22.36: Would this mean that value of data could potentially be embedded in Computer Software, including Artificial Intelligence Systems? I imagine this change may have significant revisions to own account software and may require changes in the methodology to capture those.

Might be good to make note of the proposed compilation manual since other sections that have related compilation manuals make reference to those.

Japan

22.85 provides three categories on the typology of fungible crypto assets: (1) those designed to act as a general medium of exchange (which are further divided in those with, and those without, a corresponding liability); (2) those designed to act as a medium of exchange within a platform or network (again divided into those with, and those without, a corresponding liability); and (3) security crypto assets.

The typology of fungible crypto assets mentioned above, especially for (1) and (2), should be reconsidered. The merge of those two categories would be an idea. For the sake of statistical continuity and stability, statistical classifications based on generality or its coverage of the crypto asset as a medium of exchange should be avoided as there is a possibility that the future technologies may create new types of crypto assets which have a capacity of increased interoperability with different platforms.

Netherlands

22.14 I wonder if it is necessary to identify FaaS and BPaaS separately, considering they are essentially specific subcategories of PaaS. Including their definitions might raise confusion for readers while not adding much substance to the explanation of cloud services.

For section 'Data assets' it would be helpful to refer to the forthcoming handbook which is being worked on in the joint Eurostat-IMF task team on measuring data as an asset.

22.36 I think it would be valuable if this section included some elaboration on the distinction between data used to train AI software on one hand and the more general 'data and databases' asset on the other hand.

22.52 In writing, the explanation of the treatment of different cross-border transactions in digital intermediation services is rather difficult to follow. It might be helpful to add a visualization for the various re-routing scenarios.
22.55 This section highlights some of the (compilation) challenges associated with the rise of digital intermediary platforms. Should the SNA provide insights or suggestions on how these challenges can be tackled?

For section 'Measuring quality change in ICT goods and goods with ICT components' there seems to be a lot of overlap with the previous sections 22.91, 22.92 and 22.93. Perhaps these paragraphs could be merged by incorporating the key points of 22.95 and 22.96 into 22.91-22.93.

Singapore

For clarity, we suggest to rephrase paragraph 22.53 to: "Domestically produced digital intermediation services used to facilitate an import of good or service should conceptually be treated as an export of services and the value of the imported good or service should be measured by price paid by its domestic buyer."

To increase the clarity of the conceptual guidance, it would be helpful if further elaboration or specific examples could be provided for the following:
(a) For paragraphs 22.30 and 22.31, it would be appreciated if further guidance can be provided on how compilers should determine whether the "service life" of a particular type of data exceeds 1 year. The example provided for short-lived data (i.e. behavioral data used for targeted advertising) may still have value after 1 year.
(b) For paragraph 22.40, we note that cross-border transactions for NFTs that convey no ownership rights and only allow for personal use are to be recorded in the relevant services category depending on the content of the related assets. Some examples of such NFTs and the corresponding services category would be appreciated.

Since digitally delivered transactions can only be applied for services and not goods, we suggest editing paragraph 22.5 to: "… Digital transactions include digitally ordered (both goods and services) and digitally delivered transactions (services only)."

Chapter 23: Globalisation

Germany FSO

Figure 23.5 Decision tree for determining economic ownership of an IPP observed in global production: The wording “not as member of an MNE group” is too restrictive. The second part of the decision tree should also apply for situations where units that are part of an MNE group are interacting with units outside their own MNE group (see corrections to para 23.49). For completeness sake, a case 2.2.1.3 could be added where the unit did not produce the IPP, is a producer of other goods/services, and does neither pay royalties nor purchased the IPP. This would reflect the contractor in an FGP arrangement.

23.28: The guidance note on FGPs recommended that FGPs should be classified as manufacturing. The chapter does not include this recommendation.

23.7 - 23.11: Re-arrange the definitions of the arrangements in the sequence of the Figure 23.1 (Global manufacturing and distribution arrangements decision tree), starting with processing.

23.30: Since the use of intellectual property is not charged in an FGP arrangement (see para 23.28), checking the input values of IPPs seems to be impossible in practice. The last sentence is therefore not helpful as a guideline to identify FGPs.

23.8: It could be helpful to explain goods in transit.

Box 23.1 Examples of global manufacturing and distribution arrangements - Examples 2 and 3: Switch Economy B and C for better understanding.

Table 23.1 Types of SPEs – there is no description for category 1.3 (Holding financial assets for securitization)

Netherlands

23.12 contains a slightly different definition from merchanting than 33.31. Consider harmonization.

23.12 to 23.20: The treatment of the acquisition of goods as negative exports leads to trade asymmetries with the country that sells the goods as this country will report an export. I would be useful if the SNA would explicitly state that this is a cause for trade asymmetries between countries.23.7 contains a slightly different definition from re-exports than 33.33. Consider harmonization.

23.28 Introduce the acronym FGP here (or earlier) instead of in Figure 23.5 under 2.1.2.2

23.66 Replace “exchange values” by “actual market prices”, similar to what was done in 23.58

23.78 – 23.80 Replace “eSUT” by “ESUT” as in the upcoming handbook (see 23.80).

23.78 There are extensions of supply and use tables and what the upcoming handbook on the subject calls extended supply and use tables (ESUTs). Each extended SUT is an extension of a SUT, but not each extension of a SUT is an extended SUT. Only a SUT with firm type breakdowns are considered extended supply and use tables. Suggestions how to adapt the text without too many changes:

- "Extended supply and use tables (eSUTs) are extended tables designed to provide" by "Extensions of supply and use tables are extensions designed to provide"

- Insert after the sentence starting with "Extensions may include details" the following sentence "Extensions of supply and use tables with such breakdowns by firms are called extended supply and use tables (ESUTs)".

23.80 Replace "eSUTs can be found in the OECD Handbook on Extended Supply and Use Tables" by "ESUTs can be found in the Handbook on Extended Supply and Use Tables and Extended Input-Output Tables". The title of the handbook was changed.

Figure 23.7 In the arrow from Country B to Country C, replace "Gross exports" by "Gross exports (110)"

23.107 Footnote 5 refers to the 2021 version of an OECD-document. Better to refer to the 2023 version, as was done in 36.85

23.107 Footnote 5: add that there is a regional version of TiVA accounts for Latin America as well. More information for the SNA team, not necessarily for publication in the SNA itself, can be found in "Economic analysis based on input-output tables: Definitions, indicators and applications for Latin America", https://repositorio.cepal.org/server/api/core/bitstreams/bcf53eb1-35e5-49b1-8616-1683b9aefb6d/content

23.109 Replace "worldwide input-output table" a few times by "multi-country input-output table" since this is the term used in Chapter 36 as well.

23.109 Insert a reference to 36.72-36.80 (multi-country tables)

23.111 Replace "eSUTs" by "ESUTs and EIOTs".

Austria

23.26 The last sentence is inconsistent or at least misleading. It says: "The principal could report merchanting in the case of minor processing (see paragraph [23.12] and the decision tree in Figure [23.1])." However, 23.12 or and the decision tree do not relate to the special case of minor processing. Minor processing is also not a precise definition. The paragraph would be formulated clearer in the following way:

"The principal could report merchanting **(see paragraph [23.12]** in the case of minor processing **not changing the substance of the good."**

BOX 23.1.

The examples of Global Manufacturing and Distribution Arrangements seems to be inconsistent:

This is because, at the bottom of the Box we are informed that: "* Items marked with an asterisk are recommended to be shown separately as supplementary items for recording global production arrangements of Economy A. (see paragraphs [23.14, 23.22, and 23.29])."

Asterisks are included in example 3, 4 and 5 relating to processing and factoryless goods production. However, they are missing in Example 1 dealing with re-exports. According to 23.10 and 23.11 re-exports and re-imports are also recommended to be shown separately as supplementary item. The reference to 23.14 is misleading because the 23.14 does not say anything about supplementary items.

Singapore

- Clarity and nuancing of the Decision tree diagram in Figure 23.1 can be improved, in particular that of the notes at the bottom - Imports and exports of goods (in the form of re-exports) produced outside the economy of the principal can also be considered as merchandise trade and it is therefore unclear why a "No" in Box 1 - "Are the goods produced outside the economy of the principal?" would lead to Box 3 - "Merchandise trade;".

- For the section on merchanting, we note that it may be difficult to account for inverse merchanting in practice. It would be appreciated if there is guidance on possible data sources to identify inverse merchanting as well as the appropriate adjustments to be made if IMTS flows are used as the source.

- For paragraph 23.28, as it is possible that the material inputs are sourced by the principal and subsequently sold to the contractor via merchanting, we suggest not to be too prescriptive on the outsourcing of acquisition of material inputs. Suggested edits are in red:
"A factoryless goods producer is a principal that controls the production of a good by undertaking the entrepreneurial steps and providing the technical specifications required to produce the good, but that ~~fully~~ outsources fully or most of the material transformation process required to produce the output."
"… The factoryless goods producer supplies inputs of intellectual property such as product design, without charging for the right to use the intellectual property, but outsources both the acquisition of ~~all of~~ the material inputs and the manufacturing process to a, usually nonresident, contractor…"

- For clarity, we suggest to show the goods account and services account entries for all economies mentioned in the example in Box 23.1, e.g. under Example 3, other than Economy A, entries should be shown more clearly for Economy B, Economy C and Economy D.

- We suggest amending the footnote for figure 23.3 to clarify that the contractor does not need to have complete ownership of the material inputs. This also ties in with figure 23.1 (box 2) where "No" would mean that the principal does not own most or all the goods as input materials to the production (and conversely, the contractor would own most or all the input materials). The edits are in red:
"There are variations of factoryless goods production. Material inputs may also be sourced from Economy A, Economy B, or Economy D. Furthermore, the principal may source the material inputs and sell them via merchanting to the contractor. The key aspect is that the contractor takes ownership of all or most of the material inputs. Finished goods may also be sold to Economy A, Economy B, or Economy C."

- For figure 23.5, we suggest adding the scenario of factoryless goods producer in the decision tree in scenario 1 in which the unit is part of a multinational enterprise (MNE) so that it is clearer for compilers in distinguishing whether the unit within a MNE structure is a factoryless goods producer.

It seems that the treatment of FGPs in this chapter, as illustrated in the Decision tree diagram in figure 23.1 , is inconsistent with ISIC Rev. 5. Under ISIC Rev. 5, FGPs can include principals which own the input materials but in figure 23.1 (box 2), such principals are classified under Processing. We suggest to check and align with ISIC treatment standards on this.

OECD

23.34: Reference is made to the possibility of indirect control. However, it may be better to specify that this would work via ownership of enterprises that have 'control' instead of 'voting power' as the latter itself may not be sufficient, i.e., only in the case whether this voting power would be over 50%).

23.82: It would be good to clarify the link between AMNE and FATS, i.e., explaining that "FATS are a subset of AMNE and do not cover the affiliate's ultimate parent enterprise."

23.87: It is not clear what 'unrelated persons' refers to in the last sentence. We think it can be deleted with no loss of meaning.

Colombia

Consider the possibility of collecting and reporting additional data on Special Purpose Entities (SPEs), especially in cases where such entities play a significant role in the country's economy. This would help more accurately reflect the economic impact of SPEs in national statistics.

Consider the collection of disaggregated data on trade in goods and services by enterprise characteristics (TEC and STEC). This would include additional information detailing exports and imports of goods and services, as well as external flows of investment income, broken down by ownership, company size, trading partner, product, and industry.

Evaluate, in cases where Special Purpose Entities (SPEs) are relevant, the voluntary option of extending the sequence of economic accounts through a supplementary presentation that reclassifies these entities, moving them from their legal economies of incorporation to the economies of their parent companies.

Belgium National Bank

Relating to the Figure 2 "Decision tree for determining economic ownership of an IPP observed in global production - unit is a member of MNE group", it would be useful to also create a case 1.1.3; in concrete terms, this concerns companies within an MNE that provide IPP services on behalf of other entities and that are not themselves main producers of R&D and that do not use the IPP in their own production process. In this case, economic ownership should be assigned to the unit to which the R&D is sold (parent or other entity).

European Central Bank

In 23.34 or in other part of the SNA there is a need to mention and explain the treatment of control of "orphan companies".

Chapter 24: Insurance and Pensions

European Central Bank

The AEG agreement in the context of GN F12 is not correctly reflected. In particular, the wording of paragraphs 24.91 and 24.100 does not ensure that employer-independent *pension* schemes are classified as social insurance under the conditions laid down in the GN. It is particularly detrimental to that objective the references to "designated group of workers" or to self-employed only, which contradict the arguments put forward in paragraph 31 of the GN.

In relation to employer-independent pension schemes, the text is inconsistent with the draft BPM7, where the agreements of GN F.12 are correctly reflected (BPM7 5.66, 13.32).

The term "pension manager" is used to refer to the pension sponsor. This is inconsistent with the use of the term "pension manager" or derivatives of the term in 5.178 or 29.70. It is also very confusing to use "manager" for different kind of institutions depending on whether they belong to the investment fund industry or the pension industry, especially considering that many firms in those industries manage both investment funds and pension funds at the same time. We suggest to use the term "pension sponsor" or "pension guarantor" for the sponsoring role and that "pension manager" is used fro the administration role consistently with other parts of the SNA.

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'. We would welcome guidlines for those.

Italy

Insurance and pensions (OLD Chapter 17) of the draft 2025 SNA, no substantial changes have been introduced, but the consistency and the clarity of the text have been improved.
The only detail that we note is that in par. 24.200 (former par. 17.198 of SNA 2008), rows 7-9, a pre-existing sentence has been retained that looks unnecessary in the light of the text that precedes it, misplaced from the point of view of the logical sequence of the paragraph (its object, column F, is already treated in row 3), and also contains a typo (a parenthesis is opened but not closed), that is
(Column F shows that part of all defined benefit schemes of government that are retained within the government accounts as distinct from being moved into separate units or administered for government by another institutional unit.
We propose to simply delete the quoted sentence, so that par. 24.200 becomes more compact and consistent.

Israel

24.99 "If participation to a scheme is not obligatory, but only encouraged, it can become more difficult to"   Change to: ” If participation in a scheme is not obligatory, but only encouraged, it can become difficult to"
24.100 not very clear – f.ex. "unless the schemes are collective arrangements which provide policies, for certain industries or professions, with a strong resemblance to similar arrangements organized" – how do arrangements provide policies?
24.119 g "less serviced charges" should be service charges
24.127 could be formulated more short and clearer.
24.135 "Notional defined contribution schemes" – it should be explained, what that is.

Bank of Spain

We do not agree (paragraph 24.91). The text of the new SNA should incorporate the conclusions of the "Guidance Note" prepared by the TT on this matter. These conclusions were largely endorsed by the AEG under the "Option 3 for Employer-Independent Pensions."

"Option 3: Clarify that autonomous, employer-independent schemes or funds can also qualify as social insurance pensions, and specify the criterion as follows: accumulated contributions are set aside for retirement income and are subject to regulation or supervision in line with or similar to employer-related pension schemes/funds."

Reiterating all the arguments presented during the discussion and the extensive work of the TT would be dysfunctional at this point, as a broad general consensus was reached that allowed us to come to an agreement.

In our opinion, not incorporating the conclusions of the TT and the previous decisions of the AEG would damage the process and the image of the discussion on the update of the new SNA.

Eurostat

Para 24.10: "… one can observe hybrid insurance products that are […]. **These products should be allocated to one category or the other depending on which features are predominant**…" replace the part in bold with "Hybrid insurance products should be classified based on a systematic assessment of their features and incorporating criteria such as the proportion of premiums allocated to claims for insured events versus payouts at maturity.", to give more precise references to compilers.

Para 24.26: "The concept of reserves used in the formula for deriving the value of insurance output corresponds to the definitions (respectively) of non-life insurance technical reserves and life insurance and annuity entitlements." Add the part in red, to avoid any misunderstanding. The current formulation may be interpreted as if different types of insurance may be combined.

Paragraphs 24.42-24.45 could be streamlined. These sentences in paragraph 24.44 do not take into account that reinsurance businesses are usually large MNEs with many cross-border links, which implies a supranational delineation "To avoid this, it is recommended to resolve them on a case by case basis. A strict delineation of catastrophic events would reduce the instances where this might occur. "

Paragraph 24.99 "If participation to a scheme is not obligatory, but only encouraged, it can become more difficult to differentiate between social insurance type of schemes and individual insurance policies. It is clear, however, that insurance policies solely taken out by individuals would not qualify as social insurance, even if, for example, a discount is arranged for a designated group of people, or participants benefit from a tax advantage." It's important to add the bit in red.

Paragraph 24.119g – typo. it should be "service charged" instead of "service charges".

Paragraph 24.186 – this sentence "It may also include the impact of settlements that eliminate all further entitlements for part or the whole of entitlements." should be clarified, as "settlements" could mean different things.

OECD

24.135: Reference is made to 'notional defined contribution schemes' but the term itself is not explained. Is it expected that most readers will be familiar with this term or may it be useful to specify?

ISWGNA

24.163, the sentence is not understandable that says:

The shortfall (or excess) in investment income receivable by the pension fund is treated as an imputed investment income attributable to surplus/shortfall in defined benefit pension funds.

This sentence could say:

The gap between the investment income from the pension plan's accumulated assets and the investment income needed to cover the cost of the unwinding of the pension entitlements is filled by the imputed investment income from the asset representing the claim of the plan on the pension manager.

24.144, it is not correct to assume that the assets in DC plans are always used to purchase an annuity or withdrawn as a lump sum upon retirement. The retiring plan participant may be permitted to withdraw the assets at a later date or to purchase an immediate annuity, and if the assets are withdrawn, they may be moved into a different retirement plan account or into a non-retirement account. In the latter case, the amount withdrawn will generally be taxed as current income.

To improve accuracy, change "the benefits payable under a defined contribution pension scheme take the form of a lump sum ... " to "may become available to take as a lump sum upon retirement, or it may be a requirement of the scheme that these sums are to be immediately converted to an annuity ..."

Also, change the sentence that starts with "The appropriate recording" to say that if the assets are reinvested in an annuity or a retirement account, the appropriate recording is as a financial transaction. If the assets are deposited into an ordinary account, the withdrawal should be treated as a payment of retirement benefits.

Paragraph 24.178 - The last sentence of paragraph 24.178 needs to be consistent with the last sentence of paragraph 24.163. Therefore, we suggest the following changes to the last sentence of paragraph 24.178 in tracked changes:

"As a consequence, the ~~entitlement coming from past service~~ income related to the unwinding of the entitlements is matched by actual receivables of investment income and imputed investment income receivable from the pension manager."

Paragraphs 24.182-24.183 - The numerical example has incorrections. Please see numerical example below with the correct numbers (2008 SNA Table 17.8: Accounts for pension benefits payable under defined benefit scheme [corrected]). The numbers in paragraphs 24.182 and 24.183 need to be corrected as follows in tracked changes:

24.182 "For pension funds, saving is -1.2~~0.6~~ but this can be seen as the composite of the actual and imputed elements. In terms of actual flows, pension funds receive contributions of 10 from employers routed via households, 1.5 from households and pay out benefits of 16. In addition, they receive investment income of 2.2 and have output of 0.6. Their actual disposable income is thus ~~-2.3~~ -1.7. When the imputed change in pension entitlements of 3 is taken into account, saving is ~~-5.3~~ -4.7. In addition, ~~employers make~~ the pension fund receives an imputed contribution of 4.1 and also pay an imputed investment income on the claim of the pension fund of ~~1.8~~ 4, which is matched by the imputed household pension contribution supplements of 4~~. The former element is~~ routed via households, and deduct the pension scheme service charge 0.6. ~~Both~~ All elements together but adds ~~5.9~~ -1.2 to the saving of the pension fund ~~and reduces saving of the employer by the same amount~~."

24.183 "In the financial account of the pension fund, the figure of 4.1, which was the imputed contribution~~, as well as the figure of 1.8, which was the imputed investment income, are~~ is shown as the claim of the pension fund on the employer. There is a claim by households on the pension fund of the change in pension entitlements of 3. In addition, the pension fund ~~either~~ runs down financial assets ~~or increases liabilities~~ by 2.3, ~~the figure corresponding to disposable income~~ excluding the imputed contribution element from the employer."

South Africa Reserve Bank

No Deposit Insurance Schemes (DIS) were not discussed in the insurance section. DIS are regarded in the manual as standardized guarantees. The manual refers to government-imposed levy, but it does not expand more on the classification of DIS as government or public financial corporations (insurer). See paragraph 8.84.

The accounting standard for valuing insurance contracts is not mentioned in the introduction.

Insurers use International Financial Reporting Standard (IFRS 17) to measure and value insurance contracts. The concepts such as unearned premiums, unexpired risk and claims outstanding are not applicable in IFRS17. Some of these concepts are only applicable under Solvency 2 measurement.

It is indicated in paragraph 24.55 that holder of life insurance is always an individual- Pension funds can also buy life policies (other than group life scheme) for its members. This is part of death benefits on the members life. Pension funds can have a claim on the technical reserves of life insurers and investment income.

Paragraph 24.77 - Pension funds can buy annuities from life companies on behalf of the fund. The fund members (pensioners) or beneficiaries are paid monthly annuity payments. Thus, pension funds can have a claim on the technical reserves of life insurers and investment income.

Paragraph 24.140 - The investment income also includes “income from insurance policies” which was not mentioned in this paragraph.

Paragraph 24.174 - Please clarify - The amount payable by the pension fund to the employer as a pension manager, must it be recorded as cash receivable or pension entitlements by the manager?

Singapore

With reference to paragraph 24.56c, we would like to seek clarification on the definition of premium supplements in the insurance output formula for life insurance. As investment income attributed to insurance policyholders is treated as premium supplements (paragraph 24.55), we wish to clarify whether all income from reserves of life insurance should be included in output through premium supplements, or only bonuses declared in connection with life policies (as mentioned in paragraph 24.56c) be included in output?

Chapter 25: Selected issues in financial instruments

Eurostat

Para 25.120: "The act of financial intermediation is thus one of devising financial instruments that encourage those with savings to commit to lend to the financial institutions on the conditions inherent in the instruments so that the financial institutions can then lend the same funds to others as another set of instruments with different conditions. This activity encompasses financial risk management as well as maturity and liquidity transformation". We suggest deleting that part . It is lengthy, not accurate and does not add anything to the previous text.

Para 25.122. For sake of clarity, we suggest some slight editing: "Further, interest rates on loans are typically higher than the costs of funding by banks (i.e. mainly deposits); or, conversely, interest rates on deposits are lower than the risk-free interest at which banks may invest these funds (i.e., loans)." Rationale: The cost of funding is a composite element as banks have in their liability not only deposits but debt securities etc. In the SNA, the cost of funding is approximated by the interbank rate. This is also the risk-free rate at which banks invest funds, and certainly not the interest rates on loans.

Our previous comments, reflecting some of the changes made, are below.

One general comment is that this dedicated chapter could more usefully have been integrated into chapter 12, which would make it easier in terms of reading and avoiding repetition and cross-referencing.

Guarantees

25.12 seemed to be a considerably change from 2008 SNA 17.213 when (only) deleting the last sentence of 2008 SNA 17.213, while adding an "and" as a liaison of the two 'criteria'. Given the last sentence of 2008 SNA 17.213 (including an "and"), the liaison between the two criteria is necessarily an "or" in the current 2008 SNA (though it is omitted). Irrespective of what is deemed correct – i.e. whether 2008 SNA is wrong and should be corrected, or not – there is here a triple issue to Eurostat D: (i) this change was not easily identifiable in the absence of track changes, (ii) a seemingly innocuous change is in fact amending the 2008 SNA significantly, outside task team review, (iii) it needed to be decided if a 4th category of guarantees exists (aside from derivatives, one-off or standardised) or if one of the category should be de facto the residual one (one-off or standardised). The new wording still deviates from 2008 SNA 17.213, and this change was not subject to global consultation and should thus be avoided, i.e. the use of "or" should be maintained in 2025 SNA. As there was no discussion, no change should be made. Additionally, the full wording of the last sentence (adding "of the risk of the calls") should be used.

There may be a need to examine whether D.71-D.72 should also be applicable to government standardized guarantees, even non-commercial ones – as argued by INSEE during past EDPSWG discussions. This D.71-D72 recording, not foreseen in the current MGDD, does not prevent a capital transfer at inception nonetheless.

A capital transfer is to be recorded for non-commercial schemes, generally for the difference in value between the present value of calls, net of recoveries, and the present value of fees.

In contrast, **25.32** suggests that schemes with significant fees though not covering the costs should be treated as market activities, despite explicitly recognizing that the price is not economically significant (!), and proposes to record covering government payments as subsidies, or capital transfers on a cash basis. **25.33** seems to prescribe recording a capital transfer in case no fees are collected only if government recognizes a provision.

The new chapter also discusses the sectorisation of entities involved in granting standardised guarantees – Eurostat considers this should be avoided outside task team review processes and outside the issues featured in the consolidated list of recommendations and thus the paragraphs should be dropped. **25.32-25.33** discussions on institutional units/allocation to S.13 thus seem out of place. They seem to apply some sort of quantitative approach (similar to the 50% test, and not relying on economically significant prices, which require a break even in the long run) as sole criteria, without looking at qualitative criteria (which is even worse when discussing units that are engaged in financial activities).

Some of these debatable wordings existed in 2008 SNA, though.

The current text was particularly unconvincing as to who is the counterpart of the guarantor, mentioning alternatively the guarantee holder (25.18, which therefore does not answer the question), the fee payer, or the lender. **25.20** seems to indicate that the purchase is in the account of the fee payer, forgetting that the fee is an F.66 and the output is merely a partitioning of the accrued fee. 25.21a foresees the investment income attributed to the fee payer, instead of having it logically with the asset holder.

25.21c discusses calls under standardised guarantees and concludes they “are recorded in the secondary distribution of income account” (now name of account changed, but error was not corrected), while they should constitute a financial transaction (reduction of AF.66L matched by F.2).

While the issue of who is the asset holder is certainly a thorny issue, which was not necessarily well treated in 2008 SNA, any change in text should be an improvement, or otherwise the initial text should remain unchanged.

25.18 second and third sentences are extremely debatable. At inception: if the fee is paid by the lender no problem a priori exists (contrary to what 25.18 implies); if the fee is paid by the lender, one could wonder if the lender should not show a lower claim together with a guarantee. Over time, one issue is whether the AF.66 would reflect market value or not.

An issue is whether AF.66 would presumably need to be at market value or not (as not being tradable). AF.63 and AF.64 (and some AF.62) are at market value. AF.61 need not be at market value, being short terms instruments in nature, which is precisely what standardised guarantees are often not. Therefore the analogy lies more with pension entitlements.

The market value is relevant for AF.66 because standardised guarantees are indeed long-term instruments, and the probability of defaults may be significantly re-estimated over time. The Eurostat manual (MGDD) recognises equally compilation approaches that cumulate transactions, thus eliminating holding gains/losses altogether, as well as compilation approaches (based on provisions) that create temporary holding gains (that cumulatively should however add to zero).

Chapter 25 should address the issue of whether AF.66 should equate to the expected calls minus recoveries (as implied by **25.15**, as well as by the slightly circumvoluted 2nd and 5th sentences of **25.17** on the "liability decreasing" and the "recognize the guaranteed fee over multiple periods"), in which case fees payable later on must appear as an asset/receivable of the guarantor (gross approach), or whether AF.66 should also net future fees (net approach).

Eurostat D favours at this stage the gross approach, noting that 2008 SNA 11.118 already explicitly recognizes that options not paid at inception should be recorded at their fair value against a receivable for the option issuer (payable of the option buyer).

~~It would be better that the short section on one-off guarantees prescribes to record a capital transfer at time of call for the difference between the call amount and the fair value of the recoverable retained, rather than making a binary choice (all D.9, or all claim) like currently is the case in **25.8**.~~

In addition, the case of guarantee expected to be called from inception (paragraph **25.9**) curiously refers to "implicit guarantee", while the primary cases concern explicit guarantees. Such explicit cases of guarantees expected to be called at inception should be treated first.

The 'implicit guarantee' discussion seems interesting, while restricted to cases of financial instability and seemingly prescribing a call when distresses occur (which seems usual).

Paragraph **25.10** seems misplaced. Indeed, the trilateral nature of guarantees seems applicable for all financial guarantees. Similarly, either the debtor or the creditor can contract with guarantors, also in the case of one-off guarantees.

25.10 avoids the issue on whose balance sheet the counterpart asset for AF.66 is. ~~The following sentence should be changed: "These are comprised of the sorts of guarantees that are issued in large numbers, usually for fairly small amounts, along identical lines." To "These are comprised of the sorts of guarantees that are usually issued in large numbers for fairly small amounts, along identical lines."~~ Please delete also the inserted "and" to avoid a change in meaning that was not subject to consultation.

25.17 "While the ideal approach in such cases would be to recognize the guarantee fee over multiple periods, when this cannot be done then a cash accounting approach will have to be accepted. This is inaccurate for an individual guarantee but acceptable when there are many guarantees in such standardized guarantee arrangements." No, this could only be acceptable if the flow of new guarantees and fees is steady! The precise point is that the guarantees are standardised, therefore the accrual of the fees can be estimated. There is no practical need for this simplification. Moreover, the possibility of the gift component, when government provides standardised guarantees is not mentioned. Thanks for having taken on board the "steady flow", but national accounts is not intending to measure the status quo, this is not interesting, it is rather interesting to assure that changes in economic activity are accurately reflected in the accounts. As mentioned previously, this simplification is quite simply not needed as the nature of standardised guarantees implies the existing of an estimate of accrual that is not meant to be unused.

25.18 and others please clarify the term “guarantee holder”. The addition here and in **25.22 (last sentence)** is problematic. Maybe addition of T-accounts would be useful to ensure a harmonised application of the standards. Otherwise we suggest dropping the addition to 25.22, and putting the issue to research agenda. If the nature of the call is deemed not a write-off, but rather a debt cancellation, so that a loan redemption transaction from the debtor to the lender takes place, then AF.66 can be recorded on the balance sheet of the debtor, which is more analytically interesting and avoid the OVC. This is more consistent with recording of calls on one-off guarantees.

25.18 last sentence should be dropped, it is dangerous and does not add anything useful. “In any case, this amount in provisions is not likely to be significant compared with the total value of the instrument holdings concerned.” The change leads to grammatical difficulties in the sentence and does not resolve the issue. Please drop this last sentence.

25.21a Which investment income? Why not use the term uses and resources instead of payable and receivable. Could you not use the wording of ESA 2010 4.68?

25.21c should be dropped or distinguished from the rest of 25.21. Calls under standardised guarantees are not recorded in the secondary distribution of income account (as implied by the introduction of 25.21)! They are financial in nature. see above.

25.25 “Please refer to the UN ECB Handbook Financial Production, Flows and Stocks in the System of National Accounts for a detailed example of loan guarantees.” In general, references to handbooks that have not undergone global consultation should be dropped.

25.30 “Deposit insurance, however, is not always in the form of a standardized guarantee.” à “always” should probably be replaced by “usually”. Thank you for the amendment, however, we are not of the opinion that deposit insurance should only be recorded as a tax in case the payments are "not set aside". (In MGDD, treatment as a tax is used, unless the payments are refundable in nature.) This matter was not discussed in the SNA update, therefore the existing differences in treatment between SNA and ESA could unfortunately not be resolved. We suggest again the modification proposal we made before.

25.32 The following sentence should be eliminated: “If the fees cover most but not all the costs, the recording is still as above.”

25.33 “In general, when a government unit provides standardized guarantees without fees or at such low rates that the fees are significantly less than the calls and administrative costs, the unit should be treated as a non-market producer within general government.” “Significantly” should be deleted. In general, both paragraphs 25.32 and 25.33 could simply be dropped, as paragraph 25.31 indicates that normal rules of sectorisation apply, so not need to introduce errors here. see above.

Financial derivatives

We wonder whether it is justified to deviate from the text and terminology set in SNA 2008 in relation to the categories of derivatives. See 2008 SNA 11.121, for instance referring to currency swaps as synonymous of cross-currency swaps and not of forex swaps. We think pedagogically superior to start with IRS and follow with FRA as in 2008 SNA.

We miss a bit of discussion on futures, including bond futures – that have significant market visibility. A bit more about the strong policy push of instruments onto organized markets would be an advantage.

~~The important notions of at the money/in the money/ out of the money for options seem missing.~~

Eurostat D supports **25.42b**. The flipping characteristics essential and exquisitely pedagogic. While it is welcomed that CDS are described as option-like and not as forward-like in the new SNA, despite their names (indeed: CDS are not swaps), CDS can become negative only because/if they are not recorded gross: with the annual fees payable recorded as an asset/receivable of the CDS seller (and the CDS holder has a liability/payable). See below. Eurostat D argues it makes little difference that fees are paid upfront, at the end, or spread.

20.51a “counterparties” should be corrected to “parties”.

25.51d “comparative advantage in borrowing” should be eliminated or better explained. Also, the 4th sentence of 25.50.d is unclear to us.

Thank you for the insertion on off-market swaps.

25.57 “If the stock price rises above the strike or exercise price, then the shares will likely be purchased at the strike price.” “likely” should be deleted, there is no intention of providing a gift.

25.58 If warrants are an option, they give the right to buy, but not the obligation. Otherwise, they are rather forward-type instruments. In this context, the discussion of covered warrant in the last paragraph is confusing and possibly erroneous. Then saying that warrants differ from options in so far as the former leads to the creation of instruments, as stated in para **25.56**, is true only for the first class but not for the second class (naked/covered). It is a bit clearer now, but a type by type distinction should be made. When warrants are attached to preference shares with an obligation of conversion, the preference shares should be considered equity.

~~**25.58-25.59** on warrants could usefully more clearly distinguish warrants issued by the unit committed to create an instrument, often part of another instrument issued (such as a bond), then distinguishing those that are detachable from those that are wedded, from warrants issued by a third party, often called naked warrants or covered warrants~~. Thank you.

25.70 seems ambiguous. It seems to take the view of 2008 SNA 11.118, which already explicitly recognizes that options not paid at inception should be recorded at their fair value against a receivable for the option issuer (payable of the option buyer) – which is/would be good. However, “*If the premiums are paid after the purchase of an option, the value of the premium payable is recorded as an asset, under other accounts receivable/payable, at the time the derivative is purchased, financed by other accounts receivable/payable from the writer*” presumably then implies a receivable of the writer and a payable of the holder.

Also **25.70** seems to include the CDS in the gross valuation approach – which we can support. But then this contradicts that CDS may turn negative in value, as in 25.65 or 25.42b. **25.65** penultimate sentence seems to have a typo – it should be “seller” after “buyer”.

25.73, 3rd sentence seems not clear.

25.74 gives unnecessarily the impression that novation occurs upon the transfer of OTC derivatives to organized markets, while novation simply implies a new contract or/and a new third party.

Eurostat D considers it is important to keep the difference between initial margin and variation margins as in **25.78 and 25.79**, although the term repayable and non-repayable may not be best. Variation margins can be assimilated to settlement (and variation margins are reported under F.7), with an immediate reopening of the position, rather than collateralization.

25.83 is correct for forwards but not for options.

25.84 The paragraph fails to address the problem that netting generates in terms of asymmetries and other change in volumes, that are not interpretable. In any case, the paragraph should not use the term “consolidates” but rather “nets”.

New paragraph **25.84** should at least recommend to use a gross approach wherever possible.

Employee stock option

25.91 appears completely erroneous as it gives the impression that the IFRS follows the intrinsic value method, which is not the case (See IFRS 2 BC69 and BC79) as it follows a fair value method, applying the grant date for valuation. Furthermore, the Para 25.91 (which copies SNA 2008) forgets to refer to the difference between the strike price and the market price.

One way would be to delete the IFRS reference.

At the same time, it would seem useful to keep referring to IFRS as a reference point for source data accessible to compilers, even where the SNA guidance would deviate from the IFRS in some aspects. As an example, the compensation of employees could follow the IFRS (because making adjustments may be difficult) while the balance sheet could follow a market valuation.

25.98 last sentence seems curious.

ESOs are assimilable to performance related bonuses.

25.104 last sentence may be misleading is so far as contributions to pensions funds are on an accrual basis and the instruments to settle this cash or own shares is a transaction in F.64.

2008 SNA 17.398 should be retained just after 25.104.

Flows associated with instruments and interest

25.105(114) First sentence seems misleading. The balance sheet primarily reflects transactions in assets and liabilities and only in a second instance sectoral imbalances (impacting more net assets). It was reviewed, but financial transactions should be put first and also other economic flows are disregarded.

25.105-108 The paragraphs repeat other parts of SNA, and raise the expectation that a comprehensive discussion of all flows will follow, which is not the case. This part should be integrated to existing chapters, rather. Now 25.114-118 (25.118 is new, and again a repetition, also 25.131).

Figure 25.1 is not provided for comments. Will it be sent for separate consultation?

~~**25.109** "Within the SNA, the term "corporations" is used to describe institutional units providing both financial and non-financial services." The following should be added (underline): "Within the SNA, the term "corporations" is used to describe market institutional units providing both financial and non-financial services."~~

25.120 and Generally The chapter is wordy and it is not clear why a separate chapter aside from existing chapters is needed. One example: "There are now very many, very diverse ways in which money can be borrowed and lent." Why is such a sentence needed?

25.112 (25.121) "All financial intermediation in the SNA is carried out by financial corporations." This sentence should be deleted or refer to financial intermediation fulfilling the economically significant price criteria. Non-market financial intermediation can be carried out by general government units. Either other financial intermediation should be seen as non-market, or other financial intermediation should be seen as not financial intermediation at all. As an example, standardized guarantees not commercially priced, thus implying a D.9 at inception is either not financial intermediation or non-market financial intermediation. Also, commercial intermediation activities may be carried out not-autonomously, and thus classified in S.13. The sentence was changed to include incorporated enterprises of S.14, but not S.13 entities as requested. This precision on the sector was not part of the consolidated list of recommendations and should therefore be amended in line with above or deleted. It would also be an option to retain "typically" and eliminate the part on the "possible exception" for the household sector.

25.114 (123) we would avoid calling indirectly measured what is essentially an accrual issue.

25.117 (126) words on dwelling refer only to unincorporated enterprises, which could be misunderstood.

25.119 (128) It seems that a new convention is established to exclude other accounts from bearing interest, which seems against the agreement at the AEG. "Except for other accounts receivable or payable, only gold bullion, currency, non-interest-bearing deposits, financial derivatives and employee stock options never give rise to investment income. For the sake of simplicity, the SNA assumes no interest is charged on other accounts receivable/payable." On the substance, other accounts bear interest, where the stock is long-term, acknowledged by the current SNA 3.144 for trade credits, and may be neglected only for short-term payables. How to deal with the new convention established is not explained. For example, how can a discount stemming from a net present value estimate be unwound in these circumstances if not through interest? Very long other payables are also discounted in the MGDD (decommissioning costs, pension lump sums), which perhaps could be mentioned in the SNA. This change should be reverted and not made without understanding all the implications.

The reader expects that holding gains are important for foreign currency instruments (**25.129**) that sector reclassification occurs (**25.132**) and wonders why creations/settlement of instruments are excluded (in **25.134**).

25.129 1/ This paragraph is too loosely written. Why have a separate chapter 25 at all, when any points can be more usefully put in context in the existing chapters (e.g. existing chapter 12 C) where it should presumably be more solidly explained what type of holding gains and losses are to be recorded in the national accounts and which are not to be recorded? In that case, the confusing sentences on holding gains and losses not to be recorded in the national accounts can be omitted, avoiding confusion on the part of compilers which should be able to use the text as a basis for harmonised compilation. 2/ Securities are subject to holding gains and losses, not "may". If they are not traded, and no market exists, it is an indication that they are in fact not debt securities. 3/ "nominal" should be specified where holdings gains and losses are to be recorded.

20.132 "Second, loans that are deemed uncollectible, and that are not forgiven, are written-off and the values disappear from the asset boundary as volume changes. Refer to Chapter 13 for a detailed discussion on volume changes." Government as a creditor should be adapted as forgiveness is de facto assumed in many instances following ESA 2010.

25.128 1/ In paragraph 25.2, the point of section 2 should be more clearly described, i.e. that it covers the distinction between financial transactions, non-financial transactions and other flows. 2/ Figure 25.1 is not actually included in the draft – therefore it should be put for separate consultation. 3/ The following sentences need to be corrected: *"Implicit fees are subdivided between those that appear as a margin between the purchase and selling price and those that represent a margin on interest paid and received (FISIM). All income flows are investment income, and these flows are divided between interest, dividends, withdrawals from quasi-corporations, reinvested earnings on foreign direct investment and investment income attributed to investment fund shareholders."* FISIM is output of the financial corporations and intermediate/final consumption of the consumers of these services. The second sentence implies however, that it is a type of property income. Furthermore, the use of the term "investment income" must be avoided, when 'property income' is meant. This type of imprecision in terminology should be avoided. 4/ The type of property income associated with standardised guarantees is not described in the draft chapter 25, contrary to what the paragraph says. It should either be discussed (and put for global consultation) or explicitly be kept as an open issue.

25.138 ~~The reference to golds swaps is confusing and gives impression of an error: "However, a fee or interest can be earned when gold is lent out (i.e., gold swaps)." Gold swaps are collateralised loans. This must be clarified here.~~ The interest (in general not fees) earned is on the deposit/loan asset and not on the gold. Any fee can be on the gold.

25.141 ~~1/ It should be clarified that "charges on SDR allocations" are interest income, too.~~ 2/ The underlined part should be added to the following sentence; "Sometimes, new allocations of SDRs may be made; when this occurs, the allocation <u>and holding are</u> recorded as a transaction<u>s</u>."

25.142 "The cost of producing the physical notes and coins is recorded as government expenditure and not netted against the receipts from issuing the currency." If notes and coin (use singular form for coin) are government expenditure, while we might agree, this runs counter to the proposal to record collective consumption in the central bank (which we disagree with). Most importantly, it must be clarified what is meant by “receipts”, so as to be clear that those “receipts” are an incurrence of a liability in currency (AF.21), no matter in which sector they are recorded. We see the changes, though not for clarifying that the "receipts" are an AF.21 liability, but this does not solve the issue. If this should be government consumption, should it follow that the consumption of central bank should be reconsidered?

25.144 and following: The current FISIM method produces asymmetries and negative production (due to interest fixed at inception, while reference rates very over the lifetime of the instruments). This is not discussed, despite it being the problem with FISIM. Why is this crucial problem omitted? Replacing holding by issuing seems inappropriate due to the fact that FISIM is not fixed at issuance of the loans or with the depositing. This causes the asymmetries.

25.144 should be more clear that only certain financial intermediaries are deemed to produce FISIM.

The 1st part of the second sentence in Para **25.145** is debatable.

On the FISIM section, the author could mention the fact that FISIM can be excessively volatile/large if the reference rate is not smoothed out to match the average duration of the portfolios that are fixed rate (an issue raised by BE). GFS has also experience of excessively large FISIM (on government borrowing) while the typical borrowing rate of government is typically very good (thus FISIM to be small).

25.145 The paragraph is misleading. The act of lending own funds is a productive activity, it is a transformation from one financial instrument to another, and the productive activity is for example to check the creditworthiness of the borrower. As such, the paragraph adds to confusion, instead of dispelling it.

~~**25.138** In a harmonised international statistical manual, the distinction between loans and deposits should not rest on a “national definition of broad money”. Is it the intention to have only this national definition as a distinguishing feature between loans and deposits in the SNA?~~

Section on debt securities (not renumbered)

The four types of securities in **25.142-25.145** miss the indexed variety. It is very rare that zeros are sold at premium (25.143) and in contrast it is common that coupon bearing bonds are sold at premium (25.144 “in some circumstances” being unnecessary/misleading).

25.146/25.149 ~~are correct only for fixed rate instruments,~~ and coupon payments should be used instead of “subtracting any financial transaction”. Only examples of broad indices are given, not narrow ones.

~~**25.147** The bid-ask spread is the service charge producing the value added of brokers in the economy, irrespective of whether it is explicitly charged or not – most often it is not explicitly charged, nonetheless it is present.~~

25.148 **(158)**~~Addition of “secondary market” is needed, otherwise the statements and conclusions are wrong~~. Furthermore, and more importantly, the whole paragraph appears to take the creditor approach for calculating interest, rather than the correct debtor approach. As such, the whole paragraph should be simply deleted, ~~similarly to 25.149~~.

20.159 and following: Why only focus on discounts and not premiums?

~~**25.152** Suggested addition: "In the SNA, the debtor approach is used for interest".~~

25.175 (**184)** seemed not to reflect the agreement at AEG favoring some alignment on the ESA 2010 on super-dividends (following discussions flowing from D.17). Eurostat D recalls that ESA 2010 actually uses two references: distributable income (ESA 2010 paragraph 4.55) and entrepreneurial income (ESA 2010 paragraph 4.56, or operating profit, ESA 2010 paragraph 20.206, or even net operating income, ESA 2010 paragraph 20.217a), and that it was the former that needed to be retained in the SNA (e.g. including after tax), a guidance that is already in substance in the MGDD chapter.

With respect to superdividends of FDI, Eurostat D notes that the current chapter 25 wording promotes recording as dividends all distributions unless arising from the sale of assets. As commented many times in the past, what is proposed seems a rather bizarre and unnecessary complication for compilers. On the one hand, the issue is B.9 neutral such that the problem is not critical to Eurostat D (as any change in D.42 to be recorded is counterbalanced by a matching change in D.43, such that D.43+D.42 is fixed). On the other hand, we understand that BoP colleagues would prefer avoiding the superdividend rule for FDI because they would like to show negative D.43 in case of large distributions: showing that the investor is actually disinvesting – which seems reasonable.

However, making an exception for sale of assets (by the FDI investee, which then passes the proceeds to the investor) is particularly unwelcomed: (1) money is fungible, so that it is questionable to distinguish distributions on sale of assets from distributions of reserves; (2) What will be the source data for that? This will create a huge (and unnecessary) burden to compilers; (3) it should be argued that the investor is disinvesting from the economy when forcing the investee to sell assets and distribute the proceeds or to distribute reserves, alike – so why this distinction? This distinction seems to be motivated by a rear-battle by some who never welcomed the superdividend test introduced in the 2008 SNA at the request of Eurostat.

In truth, it can be noted that ESA paragraph 20.217 also makes this distinction for NCB distributions. But this wording is largely reflecting older reasonings on these issues (that indeed started with some high-profile central bank mega-distributions, 25 years ago), and may well need to be simplified in the new ESA. At the same time, NCB are large and well documented units, and the distinction made in ESA 20.217 poses no difficulties to compilers, contrary to any implementation on all cross-border flows proposed in chapter 25 draft 25.175.

25.129 seems to indicate that unallocated gold account held by monetary authorities would be AF.11 on the creditor side but as AF.2 on the debtor side. The introduction of such a conceptual inconsistency between the debtor and the creditor sides appears astonishing, at a time where consistency is promoted urbi et orbi. Opening the AF.11 liability positions for such unallocated gold occurring between monetary authorities would be much more reasonable, and also informational.

The concept of monetary gold is debatable and creates a lot of difficulties to the UK (London gold market), which repeatedly writes about this. The 1968 SNA was far superior in recognizing financial gold instead (that could be extended to silver).

~~**25.146** as currently drafted was not ideal either in the first place with "increase" and "financial transaction" two erroneous wordings to start with (and this paragraph is valid for fixed interest only).~~ see above.

OECD

25.143: Should this section also mention crypto assets with a corresponding liability designed to act as a medium of exchange?

25.154: Should this section also mention debt security tokens and utility tokens? The same applies to reference to equity tokens and derivative tokens in the other

Netherlands

Paragraph 25.53: We think that the non-zero value is a loan **by convention**. The reason for inclusion of 'by convention' is that it does not fully meet the characteristics of a loan as it is not interest-bearing and it is not really repaid at maturity. Because it is not really repaid at maturity, at least the market participants involved will probably not consider it as a repayment of a loan, it would be very helpful if this paragraph was expanded, better clarifying how to record future streams and how to partition these streams between the loan and derivative component.

Paragraph 25.73: typo in '…protection leg is greater than that of the payment leg, the seller pays and upfront premium…'

Various paragraphs: 'over the counter' or 'over-the-counter'

Paragraph 25.105: typo in '…and that there are 5 employees. for a total value…'

Paragraph 25.113: odd reference to 'services in the financial account' in this paragraph.

Paragraph 25.114: Despite the changes, the first sentence remains odd considering the role of revaluations and other changes in determining the balance sheet values. Perhaps an option could be to state that "Sectoral imbalances in the current an capital account results in changes to the stock of financial instruments".

Paragraph 25.121: In the first sentence to state that 'with the possible exception of some financial services carried out by unincorporated enterprises classified in the households sector' seems unnecessary. Firstly the output of households of certain types of financial services is all but certain. Secondly, it is not impossible to imagine conditions in which S13 or even S11 could produce financial services.

Paragraph 25.153: The concept of 'variable' now appears to the relate only to indexed debt. If Floating Rate Note's are to be viewed as fixed interest rate debt that should be made clear. The reference to paragraphs 25.169-25.178 in this paragraph seems incorrect.

Paragraph 25.172: A word appears missing in "The interest rate should be the at which…"

European Central Bank

25.186 only lists dividends and retained earnings within "Investment income attributable to collective investment fund shareholders", ignoring the "imputed dividend" corresponding to indirect charges to shareholders, as agreed in GN D.16 and as recognised in the draft BPM7 12.38.

Bank of Belgium

In the new paragraph 25.128, one last mention of FISIM is still present, which should be replaced according to table 21.9

*"All fees payable to the owners of securities used for securities lending and to the owners of gold used for gold loans (whether from allocated or non-allocated gold accounts) should be recorded by convention as interest. The interest may have a **FISIM** component, separately identified, if the unit providing the loan is classified as a financial institution."*

Chapter 26: Islamic Finance

The draft 2025 SNA includes a new chapter on Islamic finance. This is an important new statistical area – Islamic finance was not significant when the SNA framework was developed, but it has evolved and grown rapidly in recent decades to become a factor in many countries' financial systems. Moreover, Islamic finance introduces important behavioral and policy changes that might need to be encompassed within the SNA framework. Chapter 26 is an important addition to the discussion that can improve statistical coverage and promote greater standardization for compilation of Islamic in national statistical programs. It also provides a foundation for future outreach and follow-up initiatives to countries and international bodies striving for more coverage and better analysis of Islamic finance.

Comments are below. Addenda on specific topics follow, which include more extended notes on (1) behavioral differences between Islamic and conventional finance, (2) proposed redraft of ¶s 26.6 – 26.9 to tighten the presentation and highlight that they alter the conventional treatment of institutional units (IUs), and (3) peer groups for Islamic and conventional finance.

General comments –

Comment 1. Paragraphs 26.14 and 26.15 provide important descriptions of treatment of bank remuneration to customers. The first paragraph describes SNA treatment of profit equalization reserves and how funds flow between bank and customers are affected; the second explains that some Islamic financial instruments do not have conventional equivalents and that returns to depositors are based on the specific Islamic financial instrument used. In effect, the paragraphs explain that care must be taken to accurately classify and measure different types of returns and avoid an assumption that the returns are in effect an Islamic near-equivalent of conventional bank interest payments. Many statistical implications follow that should be built into advice given to compilers.

Comment 2. Section C.1 Implicit financial services on loans and deposits - Two Questions.

It is often held that the cost structure of Islamic banking is 20% more expensive than conventional banking – which would presumably be covered by lower remuneration on deposits or higher loan rates. The higher margin implies higher services output for Islamic banks.

Question 1 – Does this proposition hold up empirically in general or just in certain market segments? This condition is important - as stated in ¶ 26.38, research in 2023 found minimal differences and thus a separate rate for Islamic institutions is not needed unless there is evidence otherwise.

Question 2 – Are any differences greater on the deposit or loan sides? I would guess on the deposit side because of the religious motivation of depositors; in contrast, on the loan side competition from conventional finance would be stronger.

These points are empirically relevant – they affect thc urgency of compiling SNA data on Islamic finance and its likely economic impacts.

A further implication is in ¶ 26.39 that argues for estimating implicit services on total deposits and loans, rather than employ an instrument-by-instrument approach. This seems to contradict the sense of paras 26.14 and 26.15 as described Comment 1, above. I have long worried that this point in the forthcoming SNA might not be received well in some quarters when seen by a broader audience. I suggest that possible objections might be forestalled by highlighting plans for further research along with clear statements for regarding a subsequent compilation guide or thematic account, etc.

Comment 3 – Standardization of presentation

Islamic finance is not a standardized product. Practices and interpretations in one economy might not carry over into others. Efforts at more standardized or harmonized practices (IFSB, AAOIFI, etc.) are ongoing, and the SNA chapter should be seen as contributing to development of more standardized statistics. Conversely, the SNA will need to adapt to diverse practices and terminology and evolving practices.

Specific comments –

¶ 26.2 Append to the last sentence "that align with international financial sector standards and best practices."

¶ 26.3 Add a reference to financial soundness aspects of Islamic finance

¶ 26.4 Replace 'FISIM' with the new terminology (as in Section C.1).

¶ 26.5 'dues' is both the singular and plural form**.**

¶ 26.10 Shari'ah-compliant pension funds exist. Compliance can affect acceptability between defined benefit plans (which might be sourced from noncompliant activities) and employee contribution funds (where the employee chooses compliant funds). The text does not delve into such funds – ask the IFSB is something more should be said about Islamic pension funds.

¶ 26.11 Should the last sentence of 26.11 be "Inflows from customers include unrestricted funds that can be intermingled with other bank funds, in the same way as deposits in conventional banks, but the funds must be invested solely in Islamic financial instruments or other Shari'ah-compliant activities."

¶ 26.13 This paragraph appears to cover only windows of conventional banks that accept deposits; it concludes that the window should be considered to be a separate institutional unit independent of its parent but still within the depository corporations sector (because it accepts deposits). The paragraph should add two points;

First, recognizing the independence of the window, it should be formally *de*consolidated from its parent. If the parent and window are both depository corporations, this is less important in the national accounts, but could be important for financial soundness or monetary policy purposes.

Second, In contrast, windows as separate IUs could be classified outside the depository corporations sector – insurance is the one I remember most often.

¶ 26.20 Additional types of financial auxiliaries might include Brokers, Shari'ah Boards, and depositories for assets held under various Islamic financial instruments.

¶ 26.26 The sentence on *light takaful* can add that it is not based on tabarru principles and takaful funds are consolidated into the takaful operator's accounts. A similar statement might be added to para 26.49, or a cross reference made.

¶ 26.42 Change the term 'FISIM' in the formula.

¶ 26.52 This paragraph has a table of earned income in the SNA and BPM. The SNA has category D412 for returns similar to interest that details 3 explicitly Islamic categories of income – on deposits, loans-financing, and debt securities. This is a very useful presentation – it should be considered as mandatory for at least a dozen countries, and also a priority for the GCC and ASEAN regional groupings. (Similar detail would also be useful supplemental information in the BPM.)

26.57 The word 'only' on the last sentence is confusing and should be dropped, giving "Restricted mudaraba deposits held on-balance-sheet should be classified as Other deposits (F29)" A clarifying sentence can then be added, "In contrast, off-balance-sheet restricted mudaraba deposits should be treated as a separate institutional unit, probably classified as a nonbank investment fund."

¶ 26.61 A clearer statement about off-balance-sheet Mudaraba and statistical implications is needed.

¶ 26.62 This paragraph on sukuk should mention the current intense activity developing in tradable digital 'tokens' that provide rights in underlying assets. Islamic tokens can be expected to develop; whether they politely fall into the sukuk category, or present some other alternatives, remains to be seen. Perhaps they could be mentioned in one of the bullet points in the paragraph.

¶ 26.76 An additional statement would be useful on treatment of restricted mudaraba if ***not*** "considered part of own funds of the financial institution".

¶s 26.97 and 26.98 The last clause of paragraph 97 "though Islamic accounting standards may suggest otherwise" is floating and seems like it could appear elsewhere. It might fit nicely as the introductory sentence of paragraph 98 "In contrast, Islamic accounting standards may suggest otherwise."

¶ 26.109 Question about the last sentence – who is at risk for loss or destruction of the underlying nonfinancial asset? Should the answer be added here?

Addenda

- **Differences between Islamic and conventional finance**

Economic statistics in economies with dual conventional-Islamic banking systems can be hampered by the intermixture of the two types of banking institutions. The standard set of macroeconomic statistics (GDP, balance of payments, monetary statistics, financial soundness indicators, etc.) includes both conventional and Islamic deposit takers without separate identification – the analysis and policy might be impaired to the extent there are behavioral differences between the two types of financial institutions.

There are many possible conditions that could result in different behaviors, including that Islamic Deposit Takers (IDTs) (i.e. banks) ….

- cannot use standard market financial instruments based on interest returns, including many types of monetary policy instruments,
- can be partially isolated from general financial market conditions because they are constrained to interact primarily with other Islamic IDTs and use of Islamic financial instruments,
- often remunerate depositors/investors using profit-sharing instruments with variable returns that differ from conventional interest-paying accounts,
- lack access to conventional liquidity instruments and thus often bulk up capital accounts to deal with financial stresses, which can affect measured capital adequacy ratios, and
- can face shortages of Shari'ah-compliant High Quality Liquid Assets (HQLA) needed to meet supervisory requirements.

(2) Islamic and conventional finance statistics peer groups.

Given possible impacts of such factors, the IMF has stated "For analytical purposes, it is recommended that countries with dual banking systems compile separate aggregate data for Islamic banks, in addition to standard monetary statistics, to allow monitoring of specific indicators for the Islamic banking system such as growth in financing and sources of funding. Furthermore, guidance is also being developed for compilers of FSIs in countries with Islamic financial institutions in the context of updating the IMF's *FSI Compilation Guide."* (IMF. *Ensuring Financial Stability in Countries with Islamic Banking* January 2017.)

Forthcoming guidance on Islamic finance in the on-going revision of the SNA (Chapter 26 – Islamic Finance) will benefit statistics compilers. Also, separate peer groups for conventional banks and Islamic banks can be constructed. Peer groups can facilitate empirical analysis of possible different behaviors, enhance surveillance of the economy, help evaluate differences in policy effectiveness, and inform on possible new legal or supervisory standards.

Separate data on IDTs are already collected by the Islamic Financial Services Board (IFSB). The IFSB further collected separate data on stand-alone IDTs and Islamic windows operated by conventional banks. The separate windows data are collected because their ties with the conventional parent enterprise might affect their capital structure and liquidity support mechanisms, and because of likely cross-border transactions of many windows with nonresident affiliates of their parent.

The Islamic finance peer group data can be ….

- Analyzed in isolation. These data can be used to understand the behavior of the subsector, for supervision, for analysis of sector soundness or risk, or to design appropriate monetary policies. *Or…*

- Translated into conventional equivalent data for the Islamic subsector (usings mappings that could be constructed from the SNA chapter or from the IFSB). The step can either highlight the role of Islamic finance within the full national economy, or compile separate Islamic finance and conventional finance peer groups to permit direct comparisons.

Compiling Islamic finance and conventional peer groups would be a specialized task involving international guidance, advice by Islamic financial and accounting organizations, and expertise of national compilers familiar with national practices and variations. Consideration might be given to launching an Islamic finance thematic account or compilation guide on statistical coverage of Islamic finance and its integration into national statistical frameworks.

(3) Proposed redraft of ¶s 26.6 – 26.9 affecting IU treatment of certain Islamic instruments

26.6 To adhere to these principles and to simultaneously accommodate the financing of economic activity, Islamic financial corporations have developed various financing arrangements that are mapped to more generic financial instruments. These financing arrangements are often based on trading models or profit and loss sharing models involving underlying real non-financial assets. Economic ownership of any non-financial assets and changes in economic ownership (discussed in Section F) are fundamental to the compilation of the macro-economic statistics – the recording of such non-financial assets may be reflected on the balance sheet of the Islamic financial institution (or an entity that it owns when the legal ownership is acquired), but this may not be the case for economic ownership as applied in the sequence of economic accounts. Economic ownership of any non-financial assets and changes in economic ownership are discussed in Section F and are closely related to the characteristics of the financing instruments discussed in Section E.

26.7 Moreover, segregation of Shari'ah-compliant activities from non-compliant activities and funds (i.e., those not following Shari'ah principles) can affect the recognition and classification of institutional units (IUs). This gives rise to some specific treatments, as below;

First, the financial statements of Islamic windows of conventional financial institutions are separated from the financial activities of their conventional parent. In principle, in frameworks focusing on the structure and behavior of Islamic finance, windows should be *de*consolidated from the accounts of the conventional entity's financial balance sheet; thus, separate Islamic and conventional IU's exist.

Second, off-balance sheet restricted investment accounts (of banks and other depository corporations) that comply with Islamic finance accounting standards are to be classified as separate IUs.

Third, there is a distinctive arrangement in which a charitable institution contracts with a fund manager to establish a dedicated, open-ended asset Waqf Fund managed according to Shari'ah principles, to which the public can make donations by "purchasing" units of the fund. The charitable institution is the beneficiary of the fund; that is, it is the economic owner of all the units of the fund. Under the agreement, the fund will charge fund management fees and will reinvest or distribute specified amounts of the profits to beneficiaries. The donor's investment in the fund constitutes an irrevocable donation to the beneficiary, and the function of the fund is to provide financial management of the beneficiary's portfolio of assets. These funds are required to keep a complete set of accounts and constitute separate IUs.

Fourth, there are various schemes in different countries for supporting or enabling pilgrims to save for, or to undertake the Islamic pilgrimage (or Hajj). The term Hajj Fund is used to describe the case of a market enterprise that undertakes, as a significant part of its activities, the management of long-term savings open to individuals intending to undertake the Hajj pilgrimage in compliance with Shari'ah principles. Such funds are considered as IUs if they are legally established entities with an autonomous management and keep a complete set of accounts and are classified separately within the financial corporations' sector, with the specific subclassifications determined case-by-case.

Hajj funds are usually treated as non-money market investment funds. However, for Hajj savings to meet the conditions of deposits, the fund would usually be a regulated deposit-taking entity (bank or similar entity) with the principal value of the deposit typically protected to some degree.

Although a Hajj Fund might undertake certain secondary non-financial activities, such as the provision of travel, accommodation, and related services to pilgrims, these activities are expected to be far less significant than its financial activities. Such non-financial activities would normally involve a separate institutional unit outside of the fund.

Paragraph 26.38-it is not clear why this paragraph has a reference to paragraph 7.183 which discusses how to calculate reference rates in instances where there are negative estimates of implicit financial services on loans and deposits. Also, it may be useful to specify examples of evidence which would justify the use of different reference rates. In addition, this topic should be added to the post 2025 SNA research agenda if it has not been added.

The title of section D should be "D. The nature of returns on Islamic instruments in the Allocation of Earned Income Account".

Paragraph 26.106-to make things simpler, it may be better to change "may become the legal and economic owner for that period only" to "may be the owner for that period only".

South Africa Reserve Bank

Paragraph 26.16 - Hedge funds are part of non-money market investment funds. Hedge funds that make use of leverage strategy or shot selling should not be part of Islamic Investment funds.

Paragraph 26.19 - Suggestion to also add in this paragraph that "Islamic corporations (other than banks) that are engaged in lending activities are part of S125"

Paragraph 26.20 - Suggestion to reword the last sentence in this paragraph as “Financial auxiliaries may also relate to managers of investment funds or collective investment schemes, but not the assets they manage”

Chapter 27: Contracts, leases, licenses 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."

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.

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."

Chapter 29: Financial Corporations

Eurostat

Para 29.13: "Similarly financial institutions rarely offer non-financial services." This part should be moved after "…However, in such cases the credit is usually provided by a subsidiary which is classified in the financial corporations sector."

Para 29.14: "Financial intermediation involves financial risk management as well as maturity and liquidity transformation, where the institutional units incur financial liabilities (accepting deposits or issuing bills, bonds or other securities or insurance liabilities) ~~or uses own funds to~~and acquire mainly financial assets (making loans and advances, or purchasing bills, bonds or other securities)". The change is needed as banks mainly create liabilities when creating assets (loans) or buying securities, they do not issue liabilities prior to lending. This is a simultaneous process which should be reflected in the drafting.

Para 29.44: for clarity, we suggest the following edits: "Monetary policy is exercised through a variety of means, including: […] and exchange rate policy; imposing~~altering~~ bank reserve requirements; communicating to the public including through~~and~~ forward guidance ~~and other communication activities~~. In many jurisdictions central banks also ~~have a~~ are responsible for financial stability, including through bank supervision ~~analysis function, monitoring the financial positions~~ (e.g. monitoring, liquidity, leverage, capital adequacy) of large financial institutions as well as assessing the financial risks and vulnerabilities of~~and~~ the economy more generally".

Para 29.53: In the EU MMFs are often not transferrable. We suggest adding text in red: "… In some countries, MMF shares or units can be transferred by cheque or other means of direct third-party payment…"

Para 29.54, third bullet point: "…which hold real estate for rental activity as their major asset. In the case of hybrid real estate funds,…". We suggest adding "for rental activity, as if Investment Funds purchase real estate mainly to generate capital gains, the gains would not impact value added (only valuation effects would be recorded) and as such, based on contribution to value added, they would not be considered as NFC. Hence the precision: holding of real estate for rental activity.

Para 29.79. Consider adjusting the text as follow for clarity: "…Banks may also have to follow certain accounting and supervisory requirements, such as those related to liquidity, capital adequacy, leverage ratios,~~having specific provisions for~~ loan loss provisions, risk division ratio.~~es and general provisions on losses on other financial assets.~~ …"

Para 29.95: It should be made clearer this paragraph that the subsequent paras refer to MFS according to MFSMCG and not, for instance, on Monetary Financial Institutions and Market Statistic Manual (European Central Bank) still referred to in 29.95. We suggest the following edits: "This section discusses the main similarities and differences between the SNA and the MFS. ~~Further detail on monetary and financial statistics can be found in~~ according to the Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG), International Monetary Fund."

Para 29.98: add bit in red for precision: "For monetary policy purposes, the focus is on the consolidated data for depository corporations and money market fund shares."

Japan

Paragraphs: 29.54 and 29.55 (ETF of NLCA)

Physically-backed exchange traded funds (ETF) which hold NLCA as their main assets have been approved by the U.S. Securities and Exchange Commission (SEC), in addition to the already approved and traded future-based ETFs of NLCA. Hereafter, the former is called "Spot ETFs of NLCA" and the latter "Future ETFs of NLCA". Spot ETFs of NLCA have potential to be a common investment choice.

Clarification of the sector classification of these ETFs is necessary. In Chapter 29 (paragraph: 29.55), investment funds are explained in the following way: MMFs and non-MMF investment funds issue shares or units in the fund and invest predominantly in financial assets. According to this explanation, Spot ETFs may not fall into financial corporations sector, such as Non-MMF investment funds (S124). This is because the main assets of Spot ETFs of NLCA are non-financial assets. One of the examples in draft chapter 29 (paragraph: 29.54) explains that the funds which hold real estate as their major assets are non-financial corporations and are excluded from Non-MMF investment funds. As discussed above, it seems that Spot ETFs may not be classified into financial corporation sector, but this needs to be clarified in the 2025 SNA or supplementary documents, such as a compilation guidance. On the other hand, it may be clear that Future ETFs of NLCA are classified into the financial corporations sector, as they are one of the Non-MMF investment funds, holding financial derivatives of futures as their main assets.

Substantial comments (entitled 'Comments on Chapter 29 – The Financial Corporations Sector') have been sent directly to the UN at sna@un.org. It emphasizes three major transformative trends – digitalization, Islamic finance, and financial soundness and macroprudential analysis.

This new chapter for SNA 25 looks at the financial corporations sector and its components. The chapter rightly begins by noting the increased macroeconomic importance of financial corporations as the sector takes on new roles channeling funds through an economy.

It is a highly useful chapter but needs to be supplemented by further highlighting three major aspects of modern financial corporations;

Digitalization of economies and cryptoassets (such as bitcoin, central bank digital currencies, and many thousands of others) have fostered many new types of financial corporations and have changed the footprints of financial business.

Islamic finance, which is a significant variation in financial corporation behavior with a presence in perhaps a quarter of all countries.

Financial soundness and macroprudential analysis, which introduces new perspectives on corporations and their economic impacts and risks.

1.Digitalization and cryptoassets

The digital finance revolution has promulgated a variety of new financial instruments and corporations that should be covered in the chapter. The prefixes 'virtual-', 'digital-', or 'crypto-' are often associated with the new instruments and corporations.

In general, digitalization of economies is generating a wide new variety of financial corporations ('miners' of digital 'coins, exchanges and depositories, cross-border digital intermediaries and transfer facilities, service providers ('VASP's or 'CASP's – for virtualasset- or cryptoasset-, respectively) distributed ledger technology (DLT) centers, etc.. Vertical integration is digital finance is common; firms might produce and issue coins; validate coin transactions; 'mine' new coins, lend funds from the receipts; have proprietary holdings; act as exchanges or depositories; etc.

To clarify situations almost all SNA 25 compilers will face, the chapter can add some descriptions and discuss the financial vs. nonfinancial split (IT, communications, chips and hardware, etc.); intermediary vs. auxiliary split, etc..

Also, central bank digital currencies (CBDCs) are a central bank response to private digital instruments. CBDCs are financial instruments, but the operational frameworks for CBDCs are significantly blurred between the central bank, private banks, and other private financial corporations.

CBDCs for retail use by the general public and businesses often involve private banks or other financial corporations to handle outreach in order to draw on their expertise and promote market innovation – sometimes to the point that a private corporation effectively operates the system. This is particularly likely in smaller or lower income countries where the central bank lacks the retail and technical resources or expertise and thus engages private corporations as operators or even full-fledged issuers.

Conversely, some nonCBDC instruments (stablecoins, 'tokenized deposits', diverse retail payments systems) perform similar functions to CBDCs and might actively compete with them. The boundaries between CBDCs and competitor digital instruments might not be clear; for example, the Bakong 'CBDC' in Cambodia is an officially recognized digital 'stablecoin' issued by banks and backed by their reserves at the central bank.[2]

Decentralized Finance (DeFi) seeks to emulate regular functions of the conventional financial system using digital financial instruments using a global internet system based on recording and validation system (digital ledger technology – DLT similar to what is used for bitcoin).

Tokenization and Securitization is digital representation of assets (financial or nonfinancial) that permits their electronic trading.

This is a complex and rapidly developing market segment that will involve many new types of corporations. Some corporations will be clearly financial, but other supporting the system (computer data banks, software companies, telecommunications devices, etc.) might be nonfinancial. Central bank, general government, private players, and even nonresidents might be involved.

All countries now face or will face complex issues defining and compiling statistics and standard international guidance is needed. The vertical and horizaontal integration of digital firms might make classification difficult with similar looking firms classified in different classifications or even sectors. To provide compilers advice and to consolidate digital activities into a digestible package, a thematic account and Compilation Guide for virtual activities might be considered.

2. Islamic finance

SNA 25 has a new chapter on Islamic finance, but this chapter (#29) should include specific references to Islamic finance whenever significant compilation or definitional issues arise.

There are behavioral market and soundness differences between conventional and Islamic deposit takers, including among other factors, that Islamic Deposit Takers (IDTs) ….

- can be partially isolated from general financial market conditions because they are constrained to interact primarily with other Islamic IDTs and use Islamic financial instruments,
- cannot use standard market financial instruments based on interest returns, including many types of monetary policy instruments,
- often remunerate depositors/investors using profit-sharing instruments with variable returns that differ from conventional interest paying accounts,

- lack access to conventional liquidity instruments and thus often bulk up capital accounts to deal with financial stresses, which can affect measured capital adequacy ratios, and
- can face shortages of Shariah-compliant High Quality Liquidity Assets (HQLA) needed to meet supervisory requirements.

Given possible impacts of such factors, the IMF has stated "For analytical purposes, it is recommended that countries with dual banking systems compile separate aggregate data for Islamic banks, in addition to standard monetary statistics, to allow monitoring of specific indicators for the Islamic banking system such as growth in financing and sources of funding." (IMF. *Ensuring Financial Stability in Countries with Islamic Banking* January 2017.) Advice on compiling different peer groups for conventional and Islamic-based corporations, including deconsolidation of accounts of Islamic windows of conventional corporations, can be added to the chapter.

3. Financial soundness and macroprudential analysis

Over the past 2½ decades, the micro and macro perspectives on financial corporations have melded into 'macroprudential analysis' designed to protect the soundness of the financial system. That is, there is realization that the condition of individual banks and the financial sector can affect overall macroeconomic conditions; and vice versa the financial sector is at risk from unfavorable general economic conditions. The work of supervisors of individual financial institutions and the work of central banks on monetary policy, prices, and economic growth now often closely interact.

Part of macroprudential analysis is 'systemic importance', the idea that the condition of large individual financial corporations can imperil entire economies. Systemically important financial institutions (SIFIs) can include banks (SIBs) and insurance companies (SIIs). Moreover, the global economy could be affected – (G-SIFIs, G-SIBs, G-SIIs, etc.). Additional oversight and financial data are seen as necessary for these corporations. Specific statistical measures have been developed by national and international bodies and how general economic conditions are affected is closely watched.

Heightened emphasis on the condition and risks of individual financial corporations is largely divorced from the traditional macro perspective of the SNA. A discussion is needed, perhaps highlighting linking databases with individual data to produce aggregate data that retains analytical information on its elements. Of course, while protecting confidentiality to the highest feasible levels will be a challenging part of that process.[3]

One analytical tool to address this tension is use of 'Concentration and Distribution Measures' (CDM) (Size, Gini indexes, standard distribution, etc.) that can provide standard summary measures of the financial sector without revealing specific identities.

As the financial sector has gained increased importance in recent years, increased supervisory and soundness requirements have grown alongside the traditional macroeconomic statistics needs. The chapter has correctly addressed some of the connections, indeed recognizing that some tasks from both realms will fall on the same compilers and opening the door for enhanced collaboration and linking of datasets and statistical programs. This comment suggests that the door has been opened and that somewhat more can be said in SNA 25.

Specific Comments

¶s 29.04 and 29.26 – 29 The introductory paragraph 29.4 refers to a summary of the impact of technology, and the subsequent section refers to technological innovation affecting financial corporations, which is summarized in a term 'Fintech'. These references seriously understate the extent of innovation due to digitalization and consequential blurring between instruments and the diverse carriers and technical underpinnings of digital messages. Numerous ambiguities and statistical compilation issues beckon greater guidance.

¶ 29.10 on NMEs can mention distributed ledger technology (DLT), the global network of validators and exchanges for bitcoin and other coins. DLT, which is effectively only a decade and half old, facilitates global transacting and validating financial and nonfinancial transactions and can be very porous over national boundaries. As the network can be truly global, identifying the country for statistical attribution can be challenging.

¶ 29.20 on implicit financial services and the reference rate should add a sentence that there is no fully equivalent interest rate in Islamic finance because remuneration on lending is based on noninterest receipts from sales, leasing, etc. that is often shared with depositors. How closely this effectively matches or differs from conventional interest flows was a key topic in the working group on Islamic finance. As the issue was not fully resolved and some new terminology was developed, it deserves to be mentioned in this section.

Section 3. Alternative organizational structures as supplemental statistics can also describe and recommend as relevant accounts for Islamic finance corporations, probably following the frameworks used by the Islamic Financial Services Board.

¶s 29.35 - 36 in the section on nationality-based statistics can add some brief language that the exposures and risks of MNE operations in other countries are different from domestic exposures in numerous ways – business cycles, currency exposure, geopolitical problems, legal differences or uncertainties, etc. Also, transfer pricing and newer tax rules by some jurisdictions on foreign-based income create needs for data on nonresident operations, which is alluded to in 29.36. Bravo for the mention of using cross-reference datasets.

¶ 29.39 lists activities for the central bank sector – CBDCs need to be covered especially because many central banks will be newly involved in retail financial activity. This might include situations where the sectoral lines for handling CBDCs and similar instruments are blurring and might be discussed. Also, centralized payments organizations or centralized securities depositories could be in the central bank, but might also be governmental, or private industry based – some language to clarify is needed.

¶ 29.42 – Add the word 'activities' after the word central.

¶s 29.47 – 49 on deposit-taking corporations can mention situations (securitization, tokenized deposits, defeasance, etc.) where banks might channel funds to auxiliaries, the central bank, or nondeposit-taking financial corporations.

¶s 29.50 – 51 need to discuss Decentralized Finance.

¶ 29.51 Mention micro lending.

¶ **29.61** on financial corporations engaged in securitization of assets is confusing to me. Is the initial focus on special purpose trusts/vehicles critical for the classification? Or is the focus on issuing marketable asset-backed securities and defeasing liabilities (with corresponding assets) off of balance sheets? If the latter, any form of entity created for digital tokenization and securitization might well fall within this classification – which could make this a rapidly growing category with significant assets.

¶ **29.76** can mention Waqf, an Islamic trust. These can have substantial assets and earnings.

¶ **29.77 - 78 Insurance corporations and pension funds –** Can mention that some can be systemically important nationally or globally and should add information on their soundness or risk. Also say something about Say something about how pension funds differ from social security

Table 29.1 Supplementary details

In some countries, the table might be subdivided into conventional versus Islamic finance groups, or *of which Islamic finance* lines added as needed.

Possible categories or *of which* lines could be considered for digital assets intermediaries, digital assets exchange and other auxiliaries, and proprietary coin operators under captive financial institutions.

Table 29.2 Supplementary details

Throughout, there might be categories or *of which* lines for digital/crypto.

E. Link to monetary and financial statistics.

Consider a new section F. Link to Financial Soundness Indicators and Macroprudential Data. It would include concentration and distribution measures (CDM).

¶ 29.104 Section on money measures[4]

This section can add that money measures will be redefined to include retail CBDCs (China and others to follow). However, similar market functionalities between CBDCs, stablecoins, mobile phone payments, and diverse private digital payments instruments will make definition and compilation of broad money measures difficult and policy development challenging.

Something should be said about cocirculation of currencies (a.k.a currency substitution or dollarization, etc.) which is very important in some economies. The possibility of cocirculating foreign-currency CBDCs is recognized as an issue.

Also, digitalization of financial instruments will affect the velocity of financial transactions with effects on velocity of transactions, distribution of monetary policy actions, and volatility and potential reversal of flows.

¶ **29.109** Can mention Basel supervisory capital rules, including the supplements for different types of risks.

[1] Prepared by Russell Krueger. Some comments related to digital innovations draw on material in *CBDCs: Work in Progress (An Introduction to Central Bank Digital Currencies)* by the author. (2024)

[2] There are numerous examples of less than clearly defined boundaries. Hong Kong enacted a digital 'sandbox' in 2023 that can involve stablecoins as recognized bridges between CBDCs and the real economy. Or a payments coin envisioned in the BIS's Project Tourbillon distinguishes between coins generated by consumers with their banks ('unsigned coins' – as a bank liability) and coins later signed by the central bank ('CBDC coins') that establish the central bank's liability. Also, within this crowded field there can be digitally traded government bonds (including a new World Bank issue) and foreign currency issues. See Krueger (2024) for more examples.

[3] However, the tension between the two perspectives must consider that much supervisory and market data on individual financial corporations are already publicly available. For example, the Basel Pillar 3 capital adequacy disclosure framework for banks already demands disclosure of capital and liquidity data for individual banks, and has additional disclosures for systemically important banks.

[4] Some of the points mentioned here are discussed in Krueger (2024).

It may be useful to explicitly mention deposit-takers which provide microfinance in paragraph 29.47 or 29.49.

Paragraph 29.78-it may be useful to mention that S129 includes the separately constituted pension funds of international organizations as they are residents
of the economic territory in which they are located or, lacking a physical presence, residents of the economy where they are incorporated or registered. For more information, see paragraph 3.79 of the MFSMCG and paragraph 2.42 of the handbook on financial production, flows and stocks.

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…".

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.

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.

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 <u>always</u> 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 <u>there is less consensus whether to use equivalence scales and what the appropriate scale would be (see also para 32.112)</u>".
>
> **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, <u>including the option to present distributional results by household size and composition without rescaling</u>."

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?

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 33: Transactions and positions between residents and non-residents

Eurostat

Para 33.45: "In this respect, it can be noted that payments related to the sales of financial or non-financial assets other than those incremented by current or past profit are treated as a withdrawal of equity." The addition in red is needed to align to recommendations. Without the addition, if a company makes a profit of 100 and distributes the dividend by selling 100 of bonds, it would be a withdrawal of equity and not a normal dividend. Or if it sells bonds built up from past profit, this would also be a withdrawal of equity. This is contrary to what has been decided.

OECD

33.36: There are 17 instead of 16 standard services items in BPM7.

Chapter 34: Measuring well-being

Italy

On Table 34.2:

- Information by income decile on the aggregates in the production account seems very difficult to estimate and does not seem to add much relevant information on household wellbeing.
- For what concerns the capital account, it would be preferable to consider only gross fixed capital formation and its depreciation, due to the difficulties of estimating the distribution of inventories.
- Finally, also the list of balance sheet items could be simplified, considering only real worth as a unique aggregate, besides the components of net financial worth.

34.4 is a fuzzy, where it used "...often...". Moreover: the measurement of well-being concerns people. Therefore, "ecosystem services" among the data from outside the SNA that concern "aspects of well-being" means ecosystem services used by households. What would the "**direct** connections to data within the sequence of economic accounts" be?

OECD

34.21: Not sure why 'economy-wide' has been replaced with 'aggregate'. I would prefer the former as it better specifies what is meant here, whereas 'aggregate' is a too generic term here, leaving readers wondering what it may refer to. Alternatively, 'total economy' can be used?

34.57: Recording of data on consumer durables is also relevant for the measurement of unpaid household services.

34.4: The second column not only concerns extended accounting, focusing on data from outside the sequence of economic accounts, but also encompasses thematic accounts providing more insights into specific elements (largely) captured within the production and asset boundary, such as health care and education.

IMF

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.

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.

Yale University

Need to clarify the connection of wellbeing to the economic concept of welfare.

The distributional discussions are good.

Fig 34.1 – The title is called Aspects of well-being, but some of the things listed are summary statistics that relate to wellbeing, e.g., NNI. We should keep ideas straight from measurement proxies. Also the middle circle is confusing. These are things that would say are in the SNA, but often obliquely. Or at least the shadow of the things labeled outside the SNA are there. I don't think these should referenced as outside the SNA. Rather, these are things that confound within the SNA. Finally, crime and law enforcement are very much in the SNA.

34.10 – I think more clarification is need here. The issue is that measures of production can map to changes in welfare, but it matters where the boundaries are drawn and how things like netting are handled. It also requires some modest assumptions about preferences and how big changes actually are. Therefore, in theory there can be close links, but in practice things often breakdown. This is one reason why it is important that extended and thematic accounts can clearly and smoothly interact with SNA production-boundary driven accounts.

34.28 – I understand why it says the effects of price changes need to be removed. I'm concerned the language could be confused as price changes should be ignored, but it is just the opposite. It might be helpful to say this helps connect to Hicksian notions of income and economic welfare.

34.34 – Also, need to include the change in the NPV of commonly held assets for which the household is part of the common. This is the case for many natural resources. Households can be the economic owner of a share.

34.62 – this is an important point. There must be a way to integrate unpaid household work with other forms of income. This is important for macroeconomic policy related to childcare and education. The challenge is that households may substitute unpaid work for paid work to provide services. Not accounting for the unpaid work can give the wrong singles of average income growth. For example, if a parent can earn a wage of $100, but must spend $120 on childcare, then policies that encourage work are net loss. For example, measuring unpaid household work related to childcare might be relevant to child related tax policy, not just measures of wellbeing.

34.70 – It might be worth pointing out that consumption of these consumer durables is increasingly tied to proposals for "living standards measures." The challenge is purchase of a washing machine does not mean the machine is used. Air conditioning is an example likely to becoming increasingly important.

34.73 - this should be some ecosystem services are outside the production boundary. However, many are intermediate goods within the production boundary. Many of the services listed here are either in the SNA or depend on natural resources within the SNA. For example, outdoor leisure depends on many natural resources, where these do yield transactions. Moreover, things like flood control services are implicitly prices into structures and insurance contracts. This puts the asset on the balance sheet, even if the service in intermediate. Care should be taken not to dismiss these services as not part of the SNA, but rather how some may already be counted. The challenge with these services is we do a bad job measuring levels, but a better job measuring changes.

34.75 – I don't think this is 100% correct or at the very least is very confusing. There is no example of a non-use value provided. The methods provided can be used for use values, but often ask different questions then what the SNA is trying to measure. They often ask about willingness to pay for large discrete change, rather then marginal value. On the other hand, non-use may be catch all term for way someone is willing to make a donation to a conservation NGO, that transaction is recorded (and we don't need to label it). The bigger problem is the "taxonomy" of things people care about for benefit cost analysis is not fully aligned with the taxonomies used in national accounting. The term non-use seems to fall into this category. Another example of non-use may actually be military spending if the goal is not to go to war. Indeed, the term non-use simply reflects a case when people give something else up and it is unclear to the analyst why. It is not our job to judge. Of course, the challenge is that including results reported as non-use value could lead to double counting.

34.92 – time-use data should be increased coupled with more detailed location data.

34.93 – the focus on exchange value here is confusing. When we measure marginal values on non-market production, we often measure prices and quantities. These can be used to construct exchange values, but this is different than decomposing exchange values into prices and quantities. This is important because the welfare economics and national accounting price concepts are the same if the accounting boundaries use broad taxonomies for goods and services, which is often the case for beyond production boundary household production.

Section E – this is growing international debate about the value of a statistical life. I'm not sure if this should be mentioned here. That is largely a regulatory concept.

Fig 34.2 – to the extent the gray boxes also help develop human capital there might need to be arrows creates directed cyclical directed graph. Such a directed cyclical graph could be used to explain why measuring human capital is so hard.

Health care activity – this should be linked to the concept of defensive expenditure.

Japan

Paragragh 34.125

Does Long Term Care (Social) refer to care (nursing) services that support housing and activities of daily living for those who need care and nursing, such as the sick and elderly in order for them to live at home?

Or do you mean safety net care services for those who do not need nursing care but have difficulties in living due to unemployment, poverty, etc.?

We would appreciate a clear explanation and description of the definition.

UNSD

Directed to general comments

Italy

Several of the changes and additions in this chapter are very much appreciated. Some room for improvement remains, though.

34.2: "the goods and services consumed by people that are outside the scope of of the SNA production boundary". Use of "consumed" is misleading. People benefit from, use, enyoj... even the words "goods and services" are doubtful... in 34.15 in particular the discussion from the consumption perspective includes ecosystem services (section D). Households are thus charcterised as "consumers" also when they benefit from, use or enjoy (directly) ecosystem services. If there is a consumer, there must be a producer. It is implied, like in chapter 8 of the SEEA EA (which was rejected when proposed as as international standard) that ecosystems are producers. This turns upside down the concept of economic unit, the third party principle and other logical constraints. The same logic applied to non-productive activities undertaken by individuals should be applied to ecosystem services: "it is not possible for one person to do employ another person to perform the activity **in place of ecosystems**" (34.72, with the adaptation in bold). An imprecise framing is not necessary for discussing the accounting perspective on ecosystems and their useful functions.

34.15 In this framing, it is incorrect to exclude ecosystem services from the production perspective, they would be produced and ecosystems would be their producers. But by definition ecosystem services are flows between ecosystems and humans, they do not have an exchange value and not even a welfare value measurable in exchange value (i.e. monetary) terms. This implies that they are directly measurable only in non-monetary terms. What can be measured in monetary terms in relation to them is actual or hypothetical SNA assets, goods, services, activities whose existence depends upon ecosystem services or that otherwise are connected to them.

34.73 "The monetary value of these services" (used by people individuallly or collectively) does not exist and is not univocally measurable, unless by purely conventional imputation, as ch. 9 of the SEEA EA demonstrates. It is not embodied in goods and services purchased by households, rather ecosystem services are - along with the purchased goods and services - an indispensable input for the generation of outcomes that are directly related to well-being. As such, their value is inherently non-monetary and is (just as the outcomes) fully beyond the grasp of acounting and valuation.

34.75 Measuring non-use values in monetary terms, as the mentioned methods do, is an inherent logical contradiction. Non-use implies non-transferability, i.e. no exchange could ever take place. The fact that the methods mentioned make up a price for it does not justify using it in official statistics.

34.76 It should be clarified that the structure does not have a total row because at least some entries cannot be expressed in the same measurement unit (including monetary terms). The total column is also doubtful as long as e.g. different household types use different bundles of e.g. ecosystem services; it should be stressed that the table is a structure and all items in the rows should be homogeneous. Otherwise, delete the total column.

Germany FSO

34.4: The second column not only concerns extended accounting, focusing on data from outside the sequence of economic accounts, but also encompasses thematic accounts providing more insights into specific elements (largely) captured within the production and asset boundary, such as health care and education.

Figure 34.1 Aspects of well-being - where are in this figure included "household distributional accounts (accounts for the distribution of household income, consumption and wealth)"? Please clarify. See also our comments on Ch3 and Ch21.

Colombia

Yes. In Figure 34.1, it is suggested that "accounts outside the sequence of economic accounts in the SNA" be grouped into "social and population statistics" and "environmental and economic accounting."

Paragraph 34.89. What does "a parallel method of physical time accounting as a better comprehensive solution to measure household experience" refer to?

Paragraph 34.98. It is suggested to expand the information regarding the appropriate method for incorporating data on unpaid domestic care work for adults into the extended accounts of education, training, and healthcare.

Paragraph 34.104. The method or tool that would be used to obtain information on unpaid domestic services work for industries and the detailed industrial breakdown is unclear. It is recommended to provide more information.

Chapter 35: Measuring the sustainability of well-being

Eurostat

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

These comment concerns several chapters:

In terms of the new high-level classification of natural capital – AN1, AN2, AN3 – Chapter 35 provides a full description of the relative boundaries of the SEEA and the SNA, including via

Figure 35.1 which is very helpful. Other chapters are not always consistent, and paragraph 2.22 is particularly confusing about the scope of "economic capital" and should be redrafted with reference to Chapter 35 and Fig 35.1.

The new classification – Table 11.4 – was not included in the draft SNA that we had sight of. We assume it is consistent with Table 1 in the Consolidated list document.

There seem to be significant inconsistencies across the draft SNA in respect of text referring to biological resources – cultivated / produced / migrating. There is a general lack of clarity about the criteria for classifying resources as cultivated / produced or non-cultivated / non-produced, and how the criteria relate to each other. The criteria discussed are ownership rights, potential for economic benefit, direct control, responsibility and management, and whether migratory or not. The many inconsistencies across the chapters are listed in this document.

Obvious questions for which the SNA does not provide answers are: are (migrating) fish under quota the only example of once-only non-produced biological resources?
"Land" could be more clearly defined in the SNA particularly in relation to the SEEA view of land, and in relation to the concept (practical necessity) of composite assets, underlying assets, etc. Similarly, in line with WS.8, the draft SNA could provide a clearer introduction to the concept of "underlying asset", and its relevance for depletion and depreciation. All of these issues are mentioned, but in a disparate way over the draft chapters.

Italy

The adoption of a capital approach with reference to environmental accounting themes (i.e. the introduction of the notion of natural capital and the misleading attribution of this notion to the SEEA) was not debated enough in the revision process. According to us, the recommendations reflected in the chapter are not "agreed" in a general sense. At least in the Environmental-Economic Issues Area Group under the Wellbeing and Sustainability Task Team (not a secondary group, as for the sustainability topic), there was no specific discussion on this. The London Group on environmental accounting has not been consulted either.
Also, the monetary value of ecosystem services and assets is discussed without any problematisation, even if it is not part of the international statistical standard.

35.1 last sentence: "is most readily interpreted in terms of the capital..." is a strong statement. Better "may be interpreted..." or " in the SNA is interpreted...". The use of the concept of "capital" may be justified from an economic perspective, but is not necessary in an accounting perpective (unless the accounting perspective is identified with the monetary measurement perspective, i.e. non-monetary variable are ruled out).

35.3 introduces an hypothetical "aggregate indicator of real wealth to track substitution...". The reason why such an indicator would be able to "support assessment of weak and strong sustainability" is not clear. Especially strong sustainability requires mutidimensional, not aggregate, indicators.

35.7 SEEA does not measure natural capital

Figure 25.1 shows that part of "natural capital" (the natural resources) is included in the boundary of the SNA. But the same item is excluded from "economic capital". So the boundaries of the SNA and those of "economic" do not coincide anymore. At the same time, the SNA elsewhere prescribes to subtract depletion of natural resources for deriving net measures of output and income. Soin this sense, natural resources are definitely "economic"...

section B.2 "the scope of natural capital" insists that SEEA is about (measuring the components of) natural capital but SEEA does not measure natural capital.

35.24 "the sum of natural resources and ecosystem assets..." Such a sum is unconceivable in physical terms. Here the ambiguity with respect to the object of measurement in the capitals approach becomes evident.

35.29 "the contribution of natural capital to SNA products are implicit in measures of gross operating surplus". The text should be more precise: in fact it is the contribution *of the economic appropriation of natural "capital"* that are impicit etc.
Section B.2 fails to reflect the fact that the SEEA EA parts concerning economic values of ecosystems and their services are disputed and have not been included in the intenational statistical standard (e.g. 35.59 no distinction between accounts; 35.61 "the monetary value of ecosystem assets").

OECD

Yes [recommendations have been reflected appropriately], except for one issue in 35.122. It concerns the sentence “For ESG equities, the scope concerns those investments in institutional units in which 50% or more…”. The SNA update issues note Sustainable Finance in the 2025 SNA and BPM7 (paragraph 30) notes that the AEG-BOPCOM meeting in February 2024 recommended that the 2025 SNA and BPM7 include “wording to the effect that if the DGI-3 Rec 4 task team develops a better approach than the 50% threshold principle for equity (for example reflecting new market standards), this should be adopted by the SNA and BOP/IIP”. Could you kindly reflect this wording in paragraph 35.122? The SNA and BOPCOM Secretariats and Project Managers are aware of this proposal, and have confirmed that they could issue interim guidance if the wording of the SNA envisages this and if the DGI-3 Rec 4 task team recommends any changes. The BOPCOM Secretariat has specified that it will follow the SNA wording on this point.

Yes, except for one issue in 35.122. It concerns the sentence “For ESG equities, the scope concerns those investments in institutional units in which 50% or more…”. The SNA update issues note Sustainable Finance in the 2025 SNA and BPM7 (paragraph 30) notes that the AEG-BOPCOM meeting in February 2024 recommended that the 2025 SNA and BPM7 include “wording to the effect that if the DGI-3 Rec 4 task team develops a better approach than the 50% threshold principle for equity (for example reflecting new market standards), this should be adopted by the SNA and BOP/IIP”. Could you kindly reflect this wording in paragraph 35.122? The SNA and BOPCOM Secretariats and Project Managers are aware of this proposal, and have confirmed that they could issue interim guidance if the wording of the SNA envisages this and if the DGI-3 Rec 4 task team recommends any changes. The BOPCOM Secretariat has specified that it will follow the SNA wording on this point.

Germany FSO

Table 35.1 General structure of the asset accounts for natural resources - in the name of this table should be included that this is the SEEA presentation of accounts for natural resources. Please include also in the name of the table that it shows physical asset accounts.

In addition, it should be also pointed out that the coverage of natural resources in this table 35.1 is from the SNA point of view incomplete, as it does not cover cultivated biological resources (and renewable energy resources). Moreover, “timber resources” and “aquatic resources” are not as such identified in the SNA asset classification (AN.32 Natural resources).

It is also not clear to us, if the asset accounting (in monetary terms) for “timber resources” and “aquatic resources” can be regarded as completely identical in the SNA and the SEEA (due to notion of (separate) underlying assets in the SNA for these resources, etc.). Please clarify.

General: The title does not match to the content. The chapter describes how to measure different capitals, not how to measure sustainability.

35.9: The paragraph refers to the definition of economic assets in Chapter 11. It should be mentioned here that not all natural capital assets satisfy this definition. Renewable energy assets are not a store of value that can be carry forward value from one accounting period to another.

35.24: The first sentence should be amended to: “Natural capital refers to the sum of natural resources and ecosystem assets (after correcting for any double counting from the overlap of these assets), of which the latter are not recognized as assets in the sequence of economic accounts.” Otherwise the statement would be misleading.

35.42: The first broad accounting theme of the SEEA (i) should be “accounting for environmental assets” rather than “accounting for natural resources”. The former has a broader scope, which is an added value of SEEA.

35:48: The title above (35.C.1) should be ”Accounting for Environmental Assets”

35.51: The statement that SEEA provides a richer and more comprehensive discussion does not follow from the text and an explanation of differences and added value of SEEA would be beneficial here.

35.58 – 35.59: In this chapter on sustainability the essential role of ecosystem extent and condition accounts should be worked out more clearly. No analysis of sustainability can be done with asset values of natural resources and ecosystem assets alone. Alternatively, this could be discussed in Section F.

35.50 As regards the “same structure” of assets accounts in the SNA and the SEEA (in monetary terms) – (among other) the changes between the opening and closing balance sheets in the SNA are presented a bit differently (and in a more aggregated way) then in the SEEA. In the SNA the changes are presented (explained) through transactions (including among other regeneration, depletion and depreciation of relevant natural resources), other changes in volume of assets (discoveries, reappraisals, catastrophic losses and reclassifications) and revaluations. The SEEA presentation of data, as shown in Table 35.1, is on a gross basis (shows additions + reductions). This should be made clear to avoid possible confusion.

35.19 -35.23 As regard “economic capital” - the SNA asset classification will newly include some *of which* items in relation to environmental issues (e.g. Renewable energy installations, Fossil fuel installations, Electric powered transport equipment, Carbon capturing equipment, Nuclear fusion equipment). These *of which* (functional) breakdowns of produced assets could be also mentioned here (with some relevant context – see recommendation D.9 (para 66).

35.21 Please check this paragraph with the content of Ch17 (Ch 17 covers not only produced assets, but also some non-produced assets).

35.25 Please check this paragraph, there are currently some duplications as regards natural resources.

35.51 Please check this paragraph, in particular the sentence “…*From this perspective, the description of accounting for natural resources in the SEEA provides a richer and more comprehensive discussion than is provided in the SNA but one which can be used to support directly the compilation of estimates for the SNA sequence of economic accounts*” in connection with the beginning of this paragraph.

IMF

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.

Yale University

35.1 – the reason current and future wellbeing is need for sustainability, is sustainability is about changes over time and not levels. It would be nice for that point to be made clearly.

35.4 – It is not clear that social capital can have the metric properties of the other classes of capital. Social capital is really about institutions and should be treated separately. Furthermore, human capital and natural capital are forms of economic capital, so the term economic capital is confusing. It is more than financial capital. It seems to be the union of what are defined as produced and non-produced capital earlier in this revision and also perhaps financial capital. There is a question as to whether financial capital is actually separate from produced, human, and natural capital since financial capital is actually usually set of contracts the at clarify the future flows from real capital (e.g., equity and debt instruments). So, it is not clear if including real and financial capital together leads to double counting. Of course, there are not financial capital instruments for all real capital, so it is not sufficient to only measure financial capital.

Fig 35.1 is very helpful. It might help to use this figure earlier in the SNA and use it to resolve the terms produced natural capital and non-produced natural capital. Also, in Produced assets should be excluding biological resource or natural capital generally? Likewise, for non-produced assets. Finally, again I don't like the term economic capital implying that natural capital is somehow non-economic. This will create a large issue for NSO that tasked with only focusing on economic concerns. Built capital is an alternative or designed capital? It might also be worth pointing out that no SEEA exists for human or social capital yet.

35.14 – It is also reasonable to ask if artistic originals or other intellectual property are human capital?

35.19 – this definition seems to rule out non-produced capital. Again, I think produced capital was just a good term. No need to muddy the waters calling it economic capital and implying natural capital (and human capital) are not economic. I concerned that if they are not economic capital, then they may be outside the preview of some NSOs. Other thought, it might be wise to discuss natural capital first, then produced capital could be describe as all the things meeting the definition that not included as natural capital. I say this because then we avoid language of excluding natural capital.

35.20 – agree, but I don't think this one section is enough to avoid people acting in bad faith to ignore natural capital.

35.24 -- … of which the latter are not recognized… should be of which the latter may not be recognized. The reason this is important is that there are some boundary cases that are important generate confusion. For example, wetlands that clearly capitalize into home value for storm protection or insurance premiums could be treated as natural capital and part of the land account. The key is meaningful management of the wetlands for this purpose and the ability reasonable trace out the fiscal impact, for example see

Taylor, Charles A., and Hannah Druckenmiller. "Wetlands, flooding, and the clean water act." American Economic Review 112, no. 4 (2022): 1334-1363.

35.25 – I have commented multiple times on "Environmental assets over which ownership rights have not, or cannot, be enforced, such as open seas or air, are excluded." I believe the examples are misleading. A local government can act as the legal owner and economic owner of local air quality. Perhaps changing air to global climate would be more appropriate. Moreover, there are case where open seas are allocated via international treaty. Basically, in most countries such pure open access resources are very rare, and that should said clearly. It is incumbent on NSOs to understand the institutional arrangements.

35.26 – Again the examples here generate confusion. Forests are clearly a nature resource often. I have already given a case when wetlands would appear in the land account. Urban areas are most certainly land, structures an more, even coral reefs that local governments and firms can take insurance on and directly contribute to local production are natural resources an within the asset boundary. Bullet 35.26 seems to rule this out, which is not correct. It is hard to characterize ecosystem assets as anything but residual natural systems that do not meet the criteria for inclusion within the SNA as natural resources.

35.27 – this should come earlier before 35.24.

35.28 – This is a very simple case. There are other cases, for example when a water management authority uses a forest as part of the water treatment process, then the forest is a natural resource within scope of the SNA. However, it might show up as land rather then forest. This land v forest partitioning is something that countries should be able to determine for themselves so long as they avoid double counting. Such a point should be made clear. (somewhat addressed 35.29 and 35.30).

35.29 – again some of these examples, under some institutional contexts, put what is an ecosystem asset in some context within the bounds as a natural resources in other contexts. This is an important that should be made more clearly.

35.32 -term environmental assets introduced and not defined.

35.35 This is very good, could cite

Fenichel, Eli P, Monica F Dean, and Oswald J Schmitz. 2024. "The path to scientifically sound biodiversity valuation in the context of the Global Biodiversity Framework." *Proceedings of the National Academy of Sciences* no. 121 (34):e2319077121.

35.42 – it is a bit confusing to lump land and ecosystems, with land being within the SNA asset boundary and ecosystems supposedly excluded.

35.49 – this is inconsistent with really definition. This may define strong sustainability, but one could also argue that the value of the resource must decline or the value of the class of resources must not decline for sustainability.

35.95 – Yes there are challenges with the monetary valuation of ecosystem services, and there is also a lot of knowledge about how to do it. In many ways it not much harder than owner occupied housing, artistic originals, or other tricky things within the SNA already. It is certainly easier in many cases then accurately measuring the marginal value of insurance products.

The section starting at 35.97 could be cut without much loss. I think is repetitive or gives voice to concepts that have emerge but use the term “value” in a sense that does not align with economic thinking. The focus should be on NPV. The PMI emerges when you assume a perfect market, including perfect insurance and lending markets. Finally, the bits about non-use value are better covered earlier, though I put some comments on that as well.

35.106 – this is great. Might relate critical natural capital to Stone-Geary utility/ production. That might be helpful for economists.

35.116 – ideally risk is reflect in prices.

35.118 – add “national budgets” to the first sentence too. It is not just micro-prudential risk that is important.

Section 7 – Supporting the measurement of sustainable finance needs and beyond needs work. First, I think this is a topic that could sink the whole SNA especially framed this way. Second, workable sustainable finance is just finance. This could be reformed as supporting thicker and more robust markets for a broader set of risk management challenges. However, even that might go beyond the immediate goals of the SNA?

Italy

The adoption of a capital approach with reference to environmental accounting themes (i.e. the introduction of the notion of natural capital and the misleading attribution of this notion to the SEEA) was not debated enough in the revision process. According to us, the recommendations reflected in the chapter are not "agreed" in a general sense. At least in the Environmental-Economic Issues Area Group under the Wellbeing and Sustainability Task Team (not a secundary group, as for the sustainability topic), there was no specific discussion on this. The London Group on environmental accounting has not been consulted either.
Also, the monetary value of ecosystem services and assets is discussed without any problematisation, even if it is not part of the inetrnational statistical standard.

The concept of wealth is mostly used as if it was undisputed that different capitals may be aggregated (e.g. in 35.2: "non declining real wealth per capita" .."if real wealth per capita has declined then past development should not be considered sustainable"). No hint is made to the possibility that wealth be seen as a multidimensional concept, irreducible to a single scalar measure. However, this is a widespread view.
This untold bias implies that overall levels of wealth and their decline would be assessed as the sum of different "capitals", based on some common measurement basis, which of course is a monetary one.
As a consequence, monetary measurement of "natural capital" is central to the approach, and looms over the entire discussion on ecosystem assets (e.g., the importance of measuring all types of capital "beyond the monetary value" is highlighted only in 35.13, confirming that up to that point, the implicit focus was on monetary values; 35.43 gives a partial historic perspective over the development of the SEEA).

It must be noted that there is no need to adhere to the "monetising" view on multiple capitals (better: assets), in order to fulfil the purpose of the chapter: e.g. the notion of "non-declining" can be, and would be best applied, to each element of a set of assets, each of which measured by using its most appropriate unit of measure (reference to strong sustainability). Also, there is no evidence that the capitals approach has the ability "to provide a structured basis for the organisation of a relatively comprehensive set of information on sustainability..." (35.4) better than other approaches. The links between stocks and flows can be shown whether referring to the stock as "capital" or otherwise (35.6). The capitals approach is, in synthesis, not "a broad setting on sustainability" (35.7).

An important element for well-being and sustainability analysis is missing from, or hidden somewhere in, the discussion: the qualitative aspect of the stocks, in particular of produced capital. This, as all other forms of capital, is assumed to be a positive element in well-being and sustainability, while in reality it may consist in the most dangerous and harmful of things, from nuclear weapons to dams placed in the wrong places.

Non-monetary measurement can support this kind of analysis (for "natural capital", think of ecosystem disservices) while monetary measurement cannot, being assumed that all assets having a market value are able to provide positive contributions to future well-being (i.e. contribute to sustainability).

No mention is made, and no influence on the text evident, of the fact that the SEEA EA is not an international statistical standard as for the parts concerning monetary values. This, however, is a major reason of caution with using these values in well-being and sustainability measurement. What has been written as comment to Ch.34 on ecosystem services as "income" and "consumption" is relevant for this chapter as well, to the extent that sustainability of well being is reduced to the stream of future consumption flows.

Biodiversity Consultant

Figure 35.1 Component of four capitals.

This is a useful figure. However, it’s not clear why cultivated biological resources are excluded from economic capital and included in natural capital.

There is no discussion in this section of why all biological resources, including cultivated biological resources, are seen as natural capital, which is inconsistent with the definition in 35.25 that natural resources are "naturally occurring" (and also with the definition of environmental assets as naturally occurring in 35.24).

In Chapter 4, 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.”

Is this the rationale for including cultivated biological resources in natural capital? If so, as noted in my comments on Chapter 4, this seems like quite thin.

35.19 First bullet says that biological resources are excluded from produced assets. It’s not clear why the word “cultivated” has been deleted here. Also, as I’ve noted, the rationale for this doesn’t seem to be explained.

35.20 notes that “Economic capital is a simplifying label to refer to this set of assets” and that it does not imply that the other types of capital have no economic value. It also says this supports a distinction from the long-standing SNA term “produced assets”. It may be useful to explain why the term “produced assets” can’t be used, which is not clear to me.

Section 2 The scope of natural capital

It would be useful to include cross-references to Chapter 11, where some of this content was introduced.

35.25 “Natural resources are assets that occur naturally”.

Timber is given as an example, but as noted in my comment on para 11.11, 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 as it frequently isn’t.

Later in the paragraph examples of biological resources are given as “e.g. timber, fish, livestock”. Suggest adding crops as an additional major example.

A larger question (also noted in my comments on Chapter 11): 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.

35.26 on ecosystem assets.

“There are a wide range of types of ecosystem assets *including forests, coral reefs, lakes, wetlands and urban areas* where each occurrence of a specific type is treated as a distinct ecosystem asset.”

Suggest changing slightly: “There are a wide range of ecosystem types, *including savannas, coral reefs, lakes, wetlands and urban ecosystems*, where each occurrence of a specific *ecosystem* type is treated as a distinct ecosystem asset.”

Because of potential confusion between forest land and forest ecosystems, suggest using savannas as an example rather than forests.

35.27

Last sentence: “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.”

Suggest rewording: “In effect, accounting for the stock of natural resources focuses on individual components of the biophysical environment whereas accounting for the stock of ecosystem assets focuses on ecosystems as communities of plants, animals and other organisms interacting with their physical environment."

Ecosystem assets consist of more than the combination of the individual natural resources considered in SEEA.

35.29 "In contrast, when accounting for ecosystem assets a wider measurement scope is applied that recognizes ecosystem services, i.e. the contributions of ecosystem assets (*such as a forest*), to benefits both within the SNA production boundary *(such as timber*)…"

Suggest using an example other than forest ecosystems and timber, such as coral reefs and fish, or rivers and water. As I've noted elsewhere, there's potential confusion between forest land and forest ecosystems (which are not the same), and timber may be provided by other ecosystem types than forest ecosystems.

35.35 about biodiversity. "From an accounting perspective, it is possible to organize data *to support the derivation of* measures of diversity at each of these levels, but diversity itself is not directly measured. For example, accounts can record the *composition of* different ecosystem types across a country and accounts can be used to record *the mix of different* species."

This is not quite right. Suggest rewording as follows:

"From an accounting perspective, it is possible to organize data *related to* measures of diversity at each of these levels, but diversity itself is not directly measured. For example, accounts can record the *extent* of different ecosystem types across a country and accounts can be used to record *data about certain* species.

"Composition" could be confused with "composition, structure and function" which are characteristics of ecosystems. Also, accounts record the extent of different ecosystem types - this information can then be used to analyse e.g. proportions of different ecosystem types in the EAA. It is unlikely that accounts will be able to record the mix of different species at any given location or within any EAA – the task is too complex. Species accounts will inevitably focus on a few key species.

It is quite an ambitious claim that ecosystem accounts will support derivation of measures of biodiversity.

Section C Measuring natural capital using the SEEA

35.42 Refers to four broad "accounting themes" of the SEEA. They are called "measurement themes" elsewhere in the chapter. "Themes" could be confused with "thematic accounts" – suggest using a different term. Measurement aspects? Measurement foci? Measurement lenses?

The second one is "land and ecosystems". Suggest changing this to "land, marine areas and ecosystems" (see later comment).

Table 35.1 General structure of the asset accounts for natural resources: Column 3 heading is Land (incl. forest land). Suggest making this Land (incl. agricultural and forest land)

Section C.2 Accounting for land and ecosystems

Suggest that this heading should be "Accounting for land, marine areas and ecosystems".

35.53 says "Further the scope explicitly includes all inland waters and marine areas within a country's EEZ", so the intention is to include marine areas.

Inland waters by definition fall within the land boundary of a country, so it is arguably OK to see them as included in "land". But marine areas need specific mention as distinct from land. It isn't sufficient (or acceptable) just to say in passing in 35.56 that land includes inland water and marine areas.

SEEA EA makes an effort to avoid terrestrial bias, for example saying "landscapes and seascapes" not just "landscapes", where applicable. Accounting for marine areas is an important aspect of ocean accounting and can't simply be subsumed under accounting for land.

As we have land use classifications now, it's conceivable that there may be a sea use classification in future, that could be used in accounting for marine areas, providing a different perspective to marine ecosystem accounts in the same way that a land use account provides a different perspective to a terrestrial ecosystem account.

35.54

"Tracking the *composition and changes in the composition* of a country's land use, land cover and *ecosystems* can provide important information on *the extent to which* certain areas of a country are changing (e.g. due to *urbanization*), *support measurement of changes in the condition of the environment,* monitor the balance of ways in which land is used (e.g. for agriculture) and underpin analysis of future trends. In accounting for the area of land and ecosystems data…"

In the second line, "ecosystems" should be "ecosystem types". SEEA EA does not track the composition of ecosystems, it tracks the extent of ecosystem types. In the last line, "landscape scale" should be "landscape or seascape scale".

Suggested rewording for 35.54:

"Tracking the *extent and changes in extent* of a country's land use, land cover and *ecosystem types* can provide important information on *how* certain areas of a country are changing (e.g. due to *urban expansion*), monitor the ways in which land is used (e.g. for agriculture) and underpin analysis of future trends. *Tracking ecosystem condition can provide information about how human activity impacts on the condition of the environment*. In accounting for land and ecosystems…"

35.55 Gives the following example: "The changes in characteristics may be large, for example from terrestrial to marine ecosystems in the case of sea-level rise, or the reverse in the case of reclamation projects."

This seems quite an unusual example. A much more commonly occurring example would be: "The changes in characteristics may be large, for example when natural ecosystems are converted to anthropogenic ecosystems (such as urban areas, croplands or dams)."

35.56 “An important statistical outcome in *conceptualizing land (including inland water and marine areas)* as space, is that accounting for land then provides the foundation for ensuring a comprehensive measurement of all ecosystems and natural resources, …”

As noted in an earlier comment, it’s not sufficient to say that land includes marine areas.

Suggest rewording: “An important statistical outcome in *conceptualizing land and marine areas* as space, is that accounting for land and marine areas then provides the foundation for ensuring a comprehensive measurement of all ecosystems and natural resources…”

Further down in the paragraph: “Examples of land uses include agriculture and forestry.”

It would be useful to include another example such as nature-based recreation, which is less directly linked to certain land cover types or certain ecosystem types.

Further down in the paragraph: “Examples of land cover include herbaceous crops, tree-covered areas and grassland.”

Suggest changing “grassland” to “grass-covered areas” and adding waterbodies as an additional (inland water) example. “Grassland” is potentially confusing as grasslands are an ecosystem type. Grass-covered areas in a land cover map may or may not be grassland ecosystems.

Support the deletion of Table 35.2.

35.58 “Accounting for ecosystems commences with the delineation of a country’s area according to a classification of ecosystem types and ecosystem extent accounts. These accounts show the composition of a geographic area referred to as an ecosystem accounting area (e.g. a country, province, catchment) in terms of different types of ecosystem assets, for example, the area of forests, wetlands, mangroves, lakes and urban areas, and how this composition is changing over time. The difference between ecosystem extent accounts and land accounts does not concern the account structure but the different classification of areas. In short, ecosystem extent accounts focus on summarizing the combined ecological characteristics of spatial areas (vegetation, climate, soil, etc) rather than a single characteristic such as land use or land cover.”

There are several areas of lack of clarity and potential confusion in this paragraph.

Suggested rewording:

“Accounting for ecosystems commences with delineating ecosystem assets within an ecosystem accounting area (e.g. a country, province, catchment), based on a classification of ecosystem types. The accounts show the extent of different ecosystem types, for example, forest ecosystems, savannas, mangroves, estuaries, lakes and urban ecosystems, and how their extent is changing over time. The difference between ecosystem extent accounts and land accounts does not concern the account structure but the different classification of areas. In short, ecosystem extent accounts focus on the ecological characteristics of spatial areas (based on functional, structural and compositional characteristics of different ecosystem types) rather than a single characteristic such as land use or land cover.”

3.62 “The core ecosystem accounting framework can be applied in a range of different ways applying the general principles of thematic accounting as described in Chapter 38. This includes accounting for stocks of carbon, for species, for individual ecosystem types such as forests and marine areas, for specific land use types such as protected areas and for links between ecosystems and economic activities such as agriculture and tourism."

Suggested rewording:

"The core ecosystem accounting framework can be applied in a range of different ways using the general principles of thematic accounting as described in Chapter 38. This includes, for example, accounting for stocks of carbon, for oceans, and for links between ecosystems and economic activities such as agriculture and tourism."

Protected areas are not a land use – many land uses occur within protected areas.

Accounting for individual ecosystem types is not encouraged – it's better to account for all ecosystem types within an EAA.

"Marine areas" are not ecosystem types – I think this is probably meant to be a reference to accounting for oceans (which goes beyond ecosystem accounting).

See comments on Chapter 38 – the thematic accounts envisaged there don't seem to encompass most of the thematic accounts discussed in SEEA EA.

Colombia

YES. For the measurement and analysis of sustainability, four types of capital are identified: economic, natural, human, and social. The first two are related to the SNA and the SEEA, but there is no link to the SNA for human and social capital (as seen in figure 35.1). In this regard, clear recommendations for advancing the measurement and integration of human and social capital within the SNA framework are not identified.

In paragraph 35.34, the first part "the scope of measurement of natural resources applied in the SEEA is broader than that of the SNA" is contradicted by the last part "In addition, the SNA provides more comprehensive accounting for renewable energy resources"

European Central Bank

The G20 DGI-3 Recommendation 4 Task Team on Climate Finance is currently in the process of agreeing on a definition for green equity to be used for the compilation of climate finance statistics in the Recommendation 4 context. The aim will be to align with the proposed SNA/BPM definitions for green equity. However, to account for the possibility that the Recommendation 4 Task Team might agree on a more refined definition for green equity after the finalisation of the new SNA/BPM drafts, the Recommendation 4 Task Team would appreciate if a note could be added in the SNA Chapter 35 and the respective BPM chapter, indicating that '*if the DGI-3 Recommendation 4 Task Team on Climate Finance revises the definition of ESG/green debt or equity securities in the future, the SNA/BPM will align with the revised definition*'.

Chapter 37: From whom-to-whom tables

Eurostat

The change from ambiguity between debtor/creditor and transactor approach to a support of the transactor approach was not part of the consolidated list of recommendations. Please

refer to our previous comments on this chapter, which seem (mainly) not reflected in this updated draft.
Moreover, we understand BPM 6&7 both offer necessary flexibility for using the debtor approach for currency and economic unions, while SNA does not. In the EU/EA economies, it seems even more necessary than for other economies to use the debtor/creditor approach. Not offering this flexibility for the debtor/creditor approach in the SNA implies that one of the main stated goals of the update of the manuals will be missed: the consistency among international macroeconomic statistics manuals.
It is not even clear exactly what is being consulted here: the chapter was missing off the pdf file circulated, and the chapter now in the wiki indicates further discussions in July (presumably July 2024) and communication of a resolution "in due course". As of know, it is is not even public exactly what you are consulting on, therefore an inclusion of these proposed changes (if they are proposed) seems doubtful.
As the previous comments are no longer accessible, we paste them below:
In general, we have the following remarks on this chapter on whom-to-whom matrices:
The main problem we see with this chapter is that it promotes the transactor approach over the debtor/creditor principle, which was not part of the consolidated list of recommendations, nor part of the issues discussed in task teams (despite European requests to do so). We do not see where and how this major change in the SNA, which was before at most ambiguous was agreed. Moreover, even the ambiguity introduced in 2008 SNA was not part of agreed changes at the time.
In the ESS export group EDPS WG of June 2024 a document regarding the drafting on the new ESA will further discuss this issue (as well as other issues).
For full transparency this is the text regarding this main issue to be discussed in the upcoming EDPS WG:
Debtor/creditor versus transactor principle.

1. As an aside, it can be noted that factoring is a splendid case of application of the 'debtor/creditor principle' versus the 'transactor principle'. The new ESA should be more forceful about this, having in mind the erroneous and apparently successful attempts to implement the transactor principle in the ongoing drafting of the SNA. This erroneous attempt is both on substance and on procedure. The SNA review has repeatedly rejected European Directorate D requests to treat this in a guidance note, and thus should not implement this without broad based consultations.
2. The debtor/creditor principle entails that, in the detailed financial accounts ('whom to whom'), a secondary market bond sale between A and B is described as a redemption of bond by the debtor to A and a new issuance in favour of B. This reporting convention permits reconciling the balance sheet positions with transactions in a whom-to-whom basis, without generating absurd other economic flows.
3. It has been explained many times that the fact that the debtor is typically not aware of the transaction does not prevent a transaction recording (thus some argue that there is no mutual agreement, and therefore no transaction), because the fact that the debt issued is tradable *de facto*implies the debtor agreement. In addition, the debtor indirectly knows the creditor, through the banking sector, in order to pay the coupon. Finally, in bond trading operating on a central counterpart basis or through market makers, which is very common, the

transactor is not known and in fact is the CCP/market maker – rendering transactor basis information useless. As an example, governments often issue bonds through designated dealers who are only intermediaries though exposed to risks/rewards, and are not the final investors. Reporting data on a transactor basis is simply worthless.

4. In the case of factoring, there should be no difficulty in saying that the factor finances the good buyer rather than the good seller, because, though the factor effectively passes the cash to the seller, the factor *de facto*knows that his obliged party is the buyer (it even is its only obliged party in case of no-recourse factoring). Applying the debtor/creditor principle is thus perfectly legitimate economically. This is a splendid illustration that the debtor/creditor principle is not an obscure issue applicable to far remote detailed financial accounts tables that few consult, but can have direct consequences on primary statistics (government debt).

5. Applying the transactor principle creates massive OCV across the system, preventing the crucial plausibility checks for holding gains and losses. This is a basic/essential quality checks where compiling financial accounts. Also, only the debtor/creditor principle can lead to a correct consolidation in transactions (i.e. comparison of [ESA] Table 27 consolidated and nonconsolidated).

6. Applying the transactor principle to equity would be a compilation and monitoring disaster in this same respect.

7. It is also elementary to understand that paying in bank notes goods must be reported as a redemption of bank notes to the buyer and an issuance to the seller, otherwise banking transaction statistics would be meaningless. There is no OCV in bank notes on such a basic event.

8. It can be noted that the SNA 2008 introduced para 12.67 seemingly prescribing the transactor principle, without consultation. In that SNA review at that time, a fixed list of topics had been decided and this issue was not one of them. The issue was thus introduced without discussion and presumably by an SNA editor at that time who was not fully aware of the compilation practices in the financial accounts.

9. As has been mentioned many times, the BPM5 had contradictory paragraphs, some pointing to the debtor/credit principle, some to the transactor principle. BPM6 has deteriorated with slightly more emphasis on the transactor principle. BPM7 was an occasion to tip back the balance to BPM5, which seems to be about to be missed.

10. As it turns out, in the draft 2025 SNA, numerous references to the transactor principle have been inserted, while this topic has not been discussed in the context of the SNA update – despite European requests to put a discussion on the table. Apparently, the new references to the transactor principle are planned to be retained, and no discussion on it will take place. Moreover, it is planned to put the transactor principle on the research agenda of the SNA, rather than the BPM.

11. In this context it should be noted that for key comparison issues, European BPM apply by exception the debt-creditor principle, so that this would leave it impossible for the new ESA to be both consistent with BPM in Europe and with the SNA.

12. In contrast, the ESA 1995 was even more clear and elaborate on the debtor/creditor principle, and the new ESA should reestablish wording to that effect.

Other general comments:

We note that different names are used for party/counterpart: “issuer/holder” in the tables while in the text “debtors/creditors” is used (e.g. table 37.3). This terminology seems furthermore inconsistent as a matrix showing transactions using the transactor principle is expected to show not the issuer but rather the old holder (seller) and the new holder (buyer) of the asset in a matrix. Moreover, has it been discussed how such a cubic structures (issuer, buyer, seller) will be presented (even only on annual basis)? In case it has been discussed, it would be good to actually show this three dimensional structure would be presented in two dimensions within this SNA chapter (e.g. in place of table 37.3).

In general, please use one term for one phenomenon (e.g. either use 'stock' or 'position'). In general, some of the terms used seem not in line with the proposals in draft SNA chapter 21. If indeed there is an advantage in changing the terminology, this should be applied consistently. If the current drafts prove that this is not possible to do, then it would be better to stick with established terminology instead of creating text that only experts familiar with old and with new terminology can decipher.

On a positive note, we very much appreciate the use of sector codes throughout this chapter as it helps the reader understand when an SNA / Institutional sector is meant and when not. It would be advisable to extent this logic also for transactions and stocks, especially when discussing implicit services (formerly known as FISIM).

It is important to be very precise when discussing SNA interest (D.41) or ‘bank interest’ (D.41g) especially when the ‘totals’ of D.41 are recording using the debtor/creditor principle while the whom-to-whom framework is not. Also, there are errors in the sector codes (in particular in table 37.4), please correct this.

Some specific comments, mostly overlapping with previous comments.

In **paragraph 37.3** it could be helpful to state that SNA is a quadruple accounting system, thereby accounting for party and counterparty.

It would be clearer to add codes (e.g. D.41 for interest and other similar income) and use the (changed) terminology consistently throughout the draft SNA. E.g. in **paragraph 37.5**, a comment we made regarding a change from "interest" to "interest and other similar income" was taken on board, but not applied consistently. Future readers (e.g. compilers) will presumably consult the SNA on ad-hoc basis, i.e. not read a whole chapter at a time. Therefore every paragraph should be clear on its own. In paragraph 37.5, "hereafter referred to as interest" is added. It would actually be better to use the full new term consistently. If the drafters find the new terminology to cumbersome, maybe it should be taken as a clear sign that it will not be actually used in communication in national accounts and therefore should be reconsidered.

In **paragraph 37.7** there are references to other manuals: “*This chapter complements Chapter 8 of the Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG) 2016 that deals with financial statistical tables and the IMF’s balance sheet approach to financial stability work, as well as the chapter 6 of the UN handbook on*

Financial Production, Flows and Stocks in the System of National Accounts (FPFS) 2015 that discusses the from-whom-to-whom tables". It is not clear what this adds to this SNA chapter. If parts of these manuals are relevant these parts should be taken over in full. Also, are these other manuals also promoting the transactor approach over the debtor/creditor principle (same for **paragraph 37.31**)?

In **paragraph 37.10** makes reference to the "*global financial crisis that began in 2007-08*" making the whom-to-whom presentation more relevant as "*This crisis clearly showed the relevance of these interdependencies, and the related financial risks and vulnerabilities, between sectors and countries, leading to a cascade of events spreading across the world*". In our view the debtor/creditor principle is needed for such analyses as the information on the issuer (the debtor) is needed rather than the transactor approach that is advocated in the chapter. This is (somewhat cryptically) noted in paragraph 37.13 "*without explicitly accounting for the changes in the counterparty sectors of the debtors as financial transactions*". Therefore, this chapter seems internally conflicting.

In **paragraph 37.12** we note that different names are used in the table ("issuer/holder") as compared to the paragraph ("debtors/creditors"). Please use one term for one phenomenon. Also, the arrows used are not clear, as it could be interpreted as if the issuer/debtor is portrayed in the rows as this is where the arrow points to, but it is not, the issuer is in the columns (as we think to understand). The arrow portraits to whom the liability is to, but this is not explained. Therefore, please either consider to delete the arrows and simply state 'Issuer in the columns' and 'Holders in the rows' or explain the arrows. Also, it might be considered to rename 'All holders (matrix total)' into 'total holders (total assets)' while 'All issuers (sector totals)' should change into 'All issuers (total liabilities)' as 'matrix total' and 'sector total' is not clear.

Table 37.1: typos in the first cell.

Paragraph 37.13 should explain the transactor approach but fails to provide the necessary clarity. In particular this sentence is too long to be comprehensive: "*In particular for tradable securities, the transactor approach means that for primary market transactions new issues (liability) and the purchases (asset) of those issues are netted (i.e.,* ***gross new issues are recorded net of redemptions/repurchases****); and in the case of subsequent secondary market activity, the asset-side transactions in those same securities are also shown net (i.e., purchases less sales)* ***without explicitly accounting for the changes in the counterparty sectors of the debtors as financial transactions****.*" First bold: how can you net in a whom-to-whom matrix new issuance with redemptions if the counterparty is not the same? Or do you mean netting at the level of counterparty? Second bold, if there is no 'explicit accounting' is there an 'implicit accounting'? Also, shouldn't you explain why it apparently isn't problematic to lose this information also in line with the data gaps on noted during the financial crisis (which was also a debt crisis)? Finally, this paragraph uses 'net' to mean 'minus redemptions/repurchases' while we understood (from chapter 21) that this term was reserved to mean 'minus consumption of fixed capital (P.51c redubbed 'depreciation') and depletion'.

Para 37.13: we look forward to seeing the text on the transactor vs debtor-creditor approach. As you know, we prefer the latter. Using the debtor-creditor approach should be mentioned at least as a possibility, in line with BPM7.

Newly added **paragraph 37.14**: we do not have issue with this newly added paragraph, which provides sensible and pragmatic guidance when compiling counterpart transaction by the debtor-creditor approach, but we fail to see how recognising that balance sheet data (necessarily compiled on debtor-creditor basis) is more reliable should should be of any help whatsoever when using the transactor approach when compiling counterpart transactions?

The whole **section 2** "*FWTW-information in a time series format*" seems redundant. The purpose seems to show that you can transpose a matrix into a normal table using 'of which' items. This seems not needed. Please also avoid using the word 're-arrange' for this process as for this as 're-arrange' has a very specific other meaning in national accounts.

In **paragraph 37.18** we read "*Although the FWTW-tables presented above show information on the interrelationships between the **main sector** for a certain financial instrument, they are still aggregated ones that, while useful, may be somewhat limited in their analytical capacity. For example, it may be important to know the long-term and short-term split of debt securities, or to have details on debt securities denominated in domestic currency versus those denominated in foreign currency.*". It is not clear what is meant with 'main sector'. Also, in the example detail is discussed on instruments (i.e., related to stocks, transactions and OEF) not sectors.

In **paragraph 37.21** the whom-to-whom matrix for investment income (D.4) is discussed. The last sentence reads "*For example, the relationship between interest or dividend transactions in the current accounts with related debt or equity instruments in the balance sheets, together with information on holding gains and losses can generate average implicit yields that help to interpret the financial positions of sectors*". It might be understood as if for D.41 the debtor/creditor approach is used while for the financial instrument the transactor approach is used. The wording 'implicit yields' seems to refer to the payment schedule as set at inception (i.e. the debtor/creditor approach).

Paragraph 37.22 The terms social contributions and social benefits are used. National accounts, in its core works on the basis of institutional sectors. The counterpart of social contributions and social benefits is always households or S.2. What could be the added value? If detail is needed on the employer, labour statistics seem more useful and suitable. Otherwise, the main sector accounts framework can be used. No need for whom-to whom.

Paragraph 37.30 it reads: "*Security-by-security (SBS) data are compiled by many countries for use in the compilation of financial accounts and balance sheets. Data on new issues of debt and equity securities can be obtained from corporations supporting these markets, such as flotation corporations and exchanges, or from companies that compile and sell this information. Such databases include the new issues of securities, broken down by security, and they usually also include information on the terms and issue rates of the security, the redemption, the current value, the currency of issue, the security identifier number, and* *other details (sometimes the initial purchaser), etc. In the case of debt securities, this supplementary information can allow for the calculation of market values, revaluations and* ***accrued interest****. This high-quality information can replace survey data and provide the sub-instrument detail in FWTW-tables for issuers (liability side), such as currency, maturity and interest rate breakdowns*". It is unclear how the accrued interest should be attributed to the counterparty both in the matrix of D.41 and in the matrix of the relevant financial instrument taking into accounts that the transactor approach is used for the inner framework but not for the totals where the debtor/creditor approach is taken, see also BPM6 paragraph 11.52-11.53.

In **paragraph 37.33** the sentence "*While in a contagion situation, the transmission effects can be traced with the help of FWTW-tables.*" Seems to use a virus metaphor for the global economy and its interlinkages. However, it is not clear what is meant with 'contagion situation' here. In general SNA should avoid talking in metaphors.

In **paragraph 37.35** reads this sentence: "*Some indication might be gleaned from a FWTW-table for total loans, however the foreign currency transactions would be partially masked by transactions in domestic currency (which could be partly offsetting)*". It seems that this information is better attained not via FWTW tables but by looking at other economic flows (revaluation, K.7). This information is however lost in the FWTW table by using the transactor approach, which makes the link with balance sheet positions (opening balance + transactions + other economic flows = closing balance) useless. In other words, this paragraph is actually rightly advertising the use of the debtor/creditor principle! Please, at the very least, recognise this problem of the transactor approach rather than imply that the proposed data presentation could help in these analytical problems.

Paragraph 37.37 is writing down in text, what every-one can also see in the **table 37.3** above. What is the value added of this? It doesn't' explain at all why these transactions are taking place in the context of an appreciation of the domestic currency and why they take place in this order (1-2-3). It is much simpler to discuss foreign exchange fluctuation in the context of revaluation (K.7) instead of transaction as such fluctuations are not transactions (no-mutual agreement). Therefore, it seems a non-sensical argument for developing (quarterly) FWTW-table in foreign currency. Although there is merit in looking at such data in foreign currency (more in relation to stocks than transactions though) to try to determine exposures to foreign currency, without looking at derivative contracts (AF.71) that hedge for these differences it seems a half-baked attempt, when using nominal value rather than face value.

Paragraph 37.38 seems to ask for even more details without explaining why this is needed. Furthermore, we read this sentence: "*Other financial instruments' foreign currency tables would add to the understanding of how economic agents in the economy more fully adjusted to the exchange rate movement*". As an exchange rate is just a relative price driven by supply and demand (just as any other price fluctuation) it is influenced by the (expectations of) these 'economic agents' (institutional units?) that decide this price. Therefore, it seems that the 'adjustment' (which is a reaction not the cause) seems a bit circular.

Paragraph 37.39 seems strange to not mention specifically the United States of America (USA) in this sentence "*Another example concerns the impact of a financial crisis for which* *the catalyst was largely a sustained and significant housing bubble and a related problem of overextended credit in a mortgage market in a large economy*" as the USA is specifically mentioned in paragraph 37.23: "*As an example, many country analysts were interested in exposures to US banks during the financial crisis*". The SNA should choose to either not 'beat about the bush' in naming countries as in **37.24** or indeed be more discreet as in **37.39**. Both are fine but a consistent approach might be followed. However, generally, the focus on one economy in the rest of the world seems strange for a national accounts manual. This is balance of payment territory and national accounts is not suited to answer these questions.

When discussing 'term structures and maturities such as in **paragraph 37.41** please indicate clearly if you are taking about original or remaining maturity.

In **paragraph 37.43** information on D.41g (thus without the deduction of FISIM) is considered most relevant for calculating interest rates. We agree. However, this isn't necessarily a discussion that seems relevant in the context of FWTW tables as the counterparts of FISIM are restricted to (S.122, S.125 and S.2). Please discuss this in more relevant parts of the SNA (such as chapters 4 or 25). Moreover, it should be clarified in the chapter 12, that the accrual of interest on the instrument refers to D.41g rather than D.41 (SNA interest). It can be deduced from the paragraph on other accounts that this is the case, but it should be clearer (as for example in ESA 2010). **Table 37.5** should be compiled based on D.41g (and using debtor approach!) and this should be reflected in the labels accordingly. Similarly, **37.54** should talk about D.41g to debt.

In **paragraph 37.44** we read "*The overall return on an instrument can be thought of as the property income and holding gains or losses. Holding gains/losses from the revaluation account can also be presented in a FWTW dimension*". Please note that for the totals when using the debtor/creditor principle the interest payments are fixed at inception and the revaluation of the instrument at market value (for debt securities) entails the interest fluctuation from that moment onwards. For deposits and loans that are valued at nominal value, revaluations of the totals are solely expected for foreign currency denominated loans but that is discussed in the previous part. Therefore, it is not clear what is meant here.

In **paragraph 37.48** the balance sheet approach is said to examine the 'main sector of the economy' while in **paragraph 37.51** the 'economy's major sectors' is referred to. It is not clear what this entail, e.g. 1-digit sectors S.11, S.12, S.13, S.14, S.15 and S.2? Or specific important subsectors like S.122? Again, please use one term for one phenomenon throughout SNA.

In **paragraph 37.51** the term 'mismatches' is used. As the SNA is not meant to be an auditing system it seems that SNA should better refrain from such judgmental terms. For example, when discussing 'Maturity mismatches', banks can have liquid deposits as liabilities and illiquid loans as assets. This doesn't necessarily imply there is a 'mismatch' as this is all part of the normal funding strategy of the bank. Also, when discussing such 'mismatches' it might be useful to mention that such risks can be hedged using derivatives contracts, implying that analysing a FWTW matrix of just one instrument (e.g. loans in foreign currency) is not a sufficient analysis.

When discussing the debt-to-equity ratio it can be stated this this is impacted by which method equity is compiled (i.e. when not quoted).

The part on solvency issues reads: "*Solvency issues cover instances where current financial assets and expected future revenue streams are insufficient to cover the liabilities, including any contingent liabilities. This situation can occur due to sustained weak income performance and/or a gradual build-up of debt, or it can arise in conjunction with some of the other situations described above.*". It is not clear what guidance is given here to compilers. Should they estimate 'future revenue streams'? How? And how should they value contingent liabilities as, per definition, these are uncertain amounts? It seems that business accounting is being mixed with macro-economic statistics here.

In **paragraph 37.53** on the part 'For corporations' it is not clear how useful business accounting/valuation concepts such as 'Tobin's Q' are to aggregates in macro-economic statistics as the corporate sector is composed of very different institutional units.

On the part 'For all sectors of for the economy' it should probably be stated that residual (not original) maturity should be taken to analyse such risks.

In **paragraph 37.54** we noted that **"***For government gross ~~or net~~ debt to GDP/GNI ratios have been in use for a long time for various purposes (e.g., debt sustainability, the ability for fiscal stimulus, etc.). These measures can be enhanced by further breakdowns of debt in selected FWTW-tables."* was adjusted and a new sentence added to say the same but remain equally vague on what financial assets should or could be netted. So, our comment remains the same: it is not clear what assets should be netted (deducted). There has been a longstanding debate on what assets are considered liquid enough to be considered. Therefore the added sentence would better be dropped in our opinion.

the proposed approach on whom to whom for transactions leads to inconsistency with BPM, therefore missing a key goal of the chapter.

Please also refer to our detailed comments under previous points.

a) the chapter is too long for the information it provides and strays into describing untested compilation possibilities, e.g. section 4. Risk of errors can be mitigated usefully by keeping the text short, avoiding duplication and focusing on text that is needed for SNA compliant compilation of core accounts.

b) as mentioned above, it is not clear exactly what is being consulted on - see comment above. Such a situation should be avoided.

c) unclear terminology: see our comment on "interest and other similar income". Also "positions" was changed to "stock". However, the change seems not coordinated as chapter 33 is still called "transactions and positions". Please ensure harmonisation; this benefits translations and all readers, but particularly readers whose native language is not one in which the SNA is translated and readers that want to do a text search.

Belgium National Bank

We do not support the fact that this chapter promotes the transactor approach (against the debtor/creditor principle) which prevents the readability of the financial accounts in a whom-to-whom perspective by generating multiple OCVs.

Chapter 38: Thematic and Extended Accounts

Germany FSO

38.10: It is not clear why only extended accounts might involve the use of experimental methodologies, but thematic accounts might not. Either move the last sentence to A. or 36.6 or add a definition of "experimental methodologies".

38.13: It should be made clear in this section (38.13) that SEEA accounts are themselves not extended SNA accounts. SEEA accounts are not necessarily conceptually consistent with the SNA. Due to the different focus and the perspective of the SEEA, such deviations are necessary. However, extended SNA accounts may draw on the guidelines and data from SEEA frameworks and accounts. Since "statistical standards" are not explicitly mentioned in 38.13, it should be noted that the monetary accounts of the SEEA EA are not yet part of such standards.

Some SEEA accounts can also be thematic accounts that provide a more disaggregated perspective on a phenomenon (e.g. environmental tax accounts). Therefore, the reference to SEEA should be made earlier in this chapter or for thematic accounts as well.

38.4 Labour market accounts belong to “the other parts of the integrated framework”, (see para 3.77), thus they should not be mentioned in this chapter.

38.13 The SEEA-CF is internationally recognized standard, therefore it should not be included under the heading “Extended accounts” in this SNA chapter. We also see as rather controversial to include the SEEA – Ecosystem accounting under the SNA extended accounts.

Heading: C Tools for developing a thematic account - Ch21 provides a taxonomy for statistical products. In para 21.80 a clear difference between “a table” and “an account” (has always a balancing item) is made and this distinction should be followed in naming all various statistical products including extended/thematic accounts and extended/thematic tables.

These provisions from Ch21 does not seem to be followed in this part of chapter 38, i.e., extended or thematic SUTs shall be described as tables (and not as accounts).

38.2 May be useful to clarify the relationship between thematic accounts discussed here and thematic accounts discussed in SEEA EA. The examples of thematic accounts in 38.8 and 39.9 don’t include any examples from SEEA (e.g. accounting for biodiversity, accounting for oceans). Could work to say that thematic environmental accounts are different from thematic economic accounts.

38.8 “Most thematic accounts cover a key activity”. This is not true of thematic accounts in SEEA EA.

UN World Tourism Organisation

UN Tourism welcomes the revision of the SNA and the final draft prepared for the global consultation.

We suggest to include in paragraph 38.28 the reference to the Statistical Framework for Measuring the Sustainability of Tourism that has been endorsed by the UN Statistical Commission at its 55th session, in March 2024 (https://unstats.un.org/UNSDWebsite/statcom/session_55/documents/BG-4a-SF-MST-E.pdf). This reference would add to the one on the TSA: Recommended Methodological Framework.

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 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.