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

21 October 2024

UK STATISTICS AUTHORITY

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

NSCASE(24)18

2025 Draft SNA Chapters 7, 11, 12, 14, 17, 18

Advice Paper

Executive summary

1. The six 2025 SNA chapters – 7, 11, 12, 14, 17 and 18 – are key chapters within the SNA 2025 and chapters that ONS consider crucial to have reviewed by NSCASE. There are significant updates to these chapters from SNA 2008 and contain changes that have cross cutting affects across national accounts.

2. These chapters were published across 2023/24. The UK submitted comments on each of these chapters, as part of the UN's consultation exercise on the 13th of September 2024, the detail of which is provided under each of the chapter sections within this paper. Global consultation responses have also been included in an annex at the bottom. A summary of the main messages from the global responses can be found within in each chapter section as well.

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

4. Specifically, the ONS would like the Committee's views on:
    a. **The chapters as a whole so feedback can be fed into the National Statisticians views to be taken to UNSC.**

    b. **Whether there are any areas in these Chapters where NSCASE would consider deviation from SNA2025/BPM7, if these matters were not addressed in the final draft SNA document.**

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

Introduction

6. The listed chapters cover the key concepts of Production, the Capital and Financial Account, the Balance Sheet, Labour, Capital Services and Measuring Prices, Volume and Productivity.

7. Below ONS provides a brief background of the UK's approach and response to the SNA consultation process, and the role NSCASE's review of "core"

SNA chapters will play in assisting the National Statistician in implementing his two-stage approach to considering the adoption of the SNA.

Background

8. Following the close of the SNA consultation period, the UK wrote to the UN expressing concern over several aspects of the draft 2025 SNA manual.
9. Concerns included: Inconsistent definitions and content between chapters and lack of definitions in certain chapters. Significant repetition of content (e.g. Chapters 5 and 29 and Chapters 12 and 25), both throughout and between chapters of the SNA, which disrupts the flow of the document, which in turn results in guidance becoming potentially ineffective for compilers.
10. Not having sight of the SNA's annexes also made it difficult to consider the depth of some of the conceptual issues the SNA presents.
11. Within the SNA draft there are chapters and sections which relate to the sequence of economic accounts and others which refer to thematic / extended accounts and other auxiliary tables. The UK considered it beneficial to give greater clarity to which chapters fall into which sphere – the core or the periphery.
12. Specific issues and queries raised around chapter content was also submitted to the UN and can be found within each chapter section of this paper.
13. Based on these points, the UK noted that while some chapters can be readied for sign off at UNSC in 2025, others require substantive re-work to be ready to be finalised.
14. The UK detailed that the chapters causing the greatest concern and which needed re-drafting included: 1, 5, 12, 16, 18, 20, 21, 22, 31, 34 and 38.
15. And those chapters which required some re-drafting included 2, 4, 7, 11, 14, 25, 29 and 35.
16. Given limited time available to re-draft all these chapters the UK advocated a broad two stage approach to the finalisation of the SNA 25 manual.
17. The UK proposed that, if the volume of re-work was impossible to deliver within the available remaining time (we expect the draft needs to be submitted around November for translation), the manual could be divided into two parts: Part One relating to the sequence of economic accounts and Part Two covering extensions beyond the sequence of economic accounts.
18. The UK proposed that Part One, would contain the following chapters: 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, and 19.
19. Part Two would comprise all other chapters, although the UK still recommends that chapters 20 and 21 be omitted from the SNA as being more appropriately included in a separate manual or other supplementary standalone guidance.

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20. Whilst the UK proposed a two-part solution to the SNA, in the case that the volume of comments overwhelmed the editorial team's ability to deliver to deadline, discussions with other countries suggest a desire to continue to move at best endeavours to complete the draft for UN Statistical Committee 2025. However, we continued to use the explicit prioritisation of the core sequence of accounts to guide which chapters to bring before the committee and in what order.

ONS Considerations

21. To assist the National Statistician with information for the UNSC meeting NSCASE is requested to review the chapters which we have prioritised.

22. Prioritisation was done on the basis of the approach laid out above, as well as taking into account the number of changes in each chapter from the 2008 SNA, and the consultation response submitted to the UN.

23. ONS has identified parts of the SNA draft as those additions made to core SNA 2008 chapters that would have significant impact across the accounts.

24. Most of the impacting new content in first half of the 2025 SNA can be found in chapters, 7, 11, 12, 14, 17 and 18. Assuming the committee remains comfortable with the core component of SNA 2008, review of the additional core content in SNA 2025, will allow NSCASE committee members to offer advice to the National Statistician on the adoption of the core sequence of accounts laid out in the SNA 2025 manual process. To aid this process we have outlined the major updates to SNA 2008, by chapter, section and paragraph in Annex A, along with the UK UN chapter consultation comments in Annex B.

ONS Concerns

25. ONS has raised several concerns regarding the drafting of these chapters, which were discussed in detail below.

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Annex A – SNA 2025 – Chapter updates by section and paragraph from SNA 2008

Chapter 7 – The Production Account

Section	Sub-section	Paragraphs
B- The concept of production	The production boundary within Households	7.29 (Bullet 1 – Solar panels)
		7.31 (extended accounts to include unpaid household service work)
	The production and use of free products	7.40 - 46 The production and use of free goods
	Services of owner-occupied dwellings	7.127-8 – Potential for double counting
F. Output of particular industries	4. Electricity and Heat	7.153-4
	7. Output of the Central Bank	7.165-168
	8. Financial services other than those associated with insurance and pension funds	7.176 – 7.178
		7.182 – 7.185
		7.194 (Factoring)
	10 - Crypto-assets without a corresponding liability designed to act as a medium of exchange	7.227 – 7.230
I, Depletion	1 The coverage of Depletion	7.283 – 7.290
	2. The calculation of Depletion	7.291 – 7.293

UK Comments

General

The UK is generally satisfied with this chapter but has flagged some remaining issues.

Specific:

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7.15 - It is unclear to the UK why these wording revisions have been made. The concept of meaningful demand is a core one within economics and there is no purpose served by deleting it.

7.280 - Appears to overstate the merits of geometric depreciation, as previous UK comments have explained. The UK recommends replacing this paragraph with 'Appropriate depreciation profiles should be applied, based on the characteristic of the asset on a case-by-case basis.'

7.40-7.46 devotes much text to a new issue also covered in depth in chapter 22.

Section B does not continue to discuss the output of the government and NPISH sectors. It seems important to continue the discussion.

Highlighted global consultation comments – [Link to all comments]

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

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

OECD – *"The 2025 SNA is unclear whether cultivated biological resources are fixed assets or natural capital [check para. 11.13]. This is a key issue throughout the current draft which also has ramifications for the definition of natural resources (which now exclude cultivated assets which are not natural)."*

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

Sweden – *"We do not think a change of wording from consumption of fixed capital to depreciation can be done without changing the meaning of the concept used in SNA. Such a change would probably also be a step taking the SNA from being a social accounting framework to a microeconomic description of the economy of a society. The use of depreciation as understood in microeconomics should be left to the extended accounts of SNA."*

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Chapter 11 – Capital Account

Section	Sub-section	Paragraphs
A. Introduction	1. The definition of ownership and assets	11.8 11.9 (Natural resources rights, MNEs economic ownership of IP)
	2 Non Financial Assets	11.11 & 11.11c
		11.18 (Contracts and licenses) and 11.19 (Crypto)

		11.21 (Natural resources) and 11.21 (Environmental Assets)
B. Acquisitions less disposals of produced nonfinancial assets (excluding natural capital)	1. GFCF	11.100 & 11.101 (Software and cloud computing) & 11.103 (Open-source software),
		11.114 11.122 - data and databases
		11.158(NFTs)
C. Acquisitions less disposals of non-produced non-financial assets (excluding natural capital)	1. Contracts, leases and licences (excluding natural capital)	11.170 (NFTs)
	2 Crypto assets without a corresponding liability designed to act as a medium of exchange	11.171 – 11.173 (Crypto assets)
D – Acquisitions less disposals of natural capital		11.178 - 11.181 (ecosystem assets)
	1. Land, mineral and energy resources, water resources and other natural resources	11.186 (mineral and energy resources)
		11.200- 11.202 (transactions in mineral and energy resources)
	2 Biological resources	11.206 – 7 (Biological resources)
		11.208 (Ownership of assets)
		11.209 - 11.210 (Valuation)
		11.219 - 11.222 Cultivated and non-cultivated biological resources
E. Depreciation and Depletion		11.232 - 11.234 – Depletion

UK Comments

General

The UK are generally satisfied with this chapter but recommended scrutinising the method described in 11.191.

Specific

Para 11.191 - the method described fails when the price of the costs of extracting the asset effectively internalise the value of the asset itself. Value accrues to the scarcest asset, as is well known in economics, which in this instance will be the extractive technology (e.g. wind turbines) and hence the residual value is generally biased downwards, leading to the natural resources being under-valued and sending a misleading signal to decision makers that the impact of extraction is less than in reality, suggesting the social optimum rate of extraction exceeds reality. This is clearly not the intent of this change, and the UK advises that this method should be rapidly scrutinised. It would be better to not make this change than for our data to misleadingly lead to over-extraction and consumption of natural resources.

Highlighted global consultation comments – Link to all comments

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

SA Biodiversity Consultant – *"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.*"

Germany FSO – *"11.41 It should be explained how solar panels, wind power plants, geothermal and heat pumps of household sector are included (under which asset in asset classification), and among other to ensure consistency with para 7.27 on production boundary. User-generated content on digital platforms produced by households fulfilling the criteria of assets (IPPs), as discussed in para 11.121, could be also mentioned in this paragraph to clarify the treatment"*

Chapter 12 – The Financial Account

Section	Sub-section	Paragraphs
C. Recording of individual financial instruments	1. Monetary gold and SDRs	12.46 (Monetary gold under reverse transactions)
		12.49 – 50 (SDRs)
	2. Currency and Deposits	12.52 (Central bank currency swap)
		12.56 (Crypto assets with a corresponding liability)
		12.58 (Transferable deposits – e-money)

	3, Debt Securities	12.70 (Crypto)
	4, Loans	12.83-12.85 (securities under a re-purchase agreement)
		12.87 (Factoring)
	5, Equity and Investment shares	12.94 (Subscription rights)
	6. Insurance, pension and standardized guarantee schemes	12.120 (Entitlements to non-pension benefits)
	7. Financial derivatives and employee stock options	12.126-7 (Option type contracts)
		12.133-4 Forward type contracts
		12.136-9 (Margins)
	8. Other accounts receivable or payable	12.144 (Emissions permits)
	9. Supplementary items	12.149-12.150 (Sustainable finance)

UK Comments

General

The UK notes that this chapter has not been previously circulated for global consultation. We expected that there would be little to no changes from SNA 2008. The significant changes made make this chapter difficult to read.

Partly, this seems to be due to multiple missing tables and codes. It is difficult to comment on draft without access to the chapter tables. The draft is incomplete without the tables and should be reissued with the tables for comments.

The lack of codes included makes the chapter difficult to read.

Section C seems to be missing – presumably this is Section 9 of Chapter 12.

There is considerable repetition of text between SNA chapters 12 and 25 there is scope to reduce the repetition by cross referencing. The UK expect this will be addressed in the final edit.

Specific

Lots of detail on financial derivatives has been included in chapter 12 which is more than other financial instruments in this chapter. These are repeated later in chapter 25 – e.g., 12.124 and 25.39. The same detail may not be required in both chapters.

12.56. The paragraph is too brief, as previous UK comments have made clear. The definition of a stablecoin needs far more clarity. A stablecoin 1:1 backed by a domestic currency should be included. Has there been consideration of a stablecoin backed at a lower ratio, or backed by a combination of domestic currency and other crypto assets, either summing to 1:1 or a lower ratio of backing? The guidance provided here is insufficient for compilers to make clear decisions on which assets count as a stablecoin and needs significant enhancement before it meets need.

None of the financial instruments are shown with their respective financial code instruments such as F2 Deposits, F3 Debt etc. The financial codes are an important reference and avoid the need to spell out the names of individual financial instruments and as such should added in throughout. Chapter 12 codes are used for sectors in Chapter 11 Financial Corporations, e.g. S.121, so it seems strange that they have not been included in Chapter 12.

12.31. **Section C not included.** *The standard items in the classification of financial assets and liabilities provide a useful basis for international comparison of national data. Presentation of data for individual countries, however, must be tailored to meet their analytical needs and to reflect national practices. Thus the particular form of presentation chosen may reflect differing institutional arrangements, the extent and nature of national financial markets, the complexity of financial assets available, and the degree of regulation and other financial control exercised. For this reason, a number of supplementary items are suggested for use in addition to the standard components of the SNA. These are described together with the standard items in section C.*

12.32 The classification of financial transactions has become more difficult because of financial innovation that has led to the development and increased use of new and often complex financial assets and other financial instruments to meet the needs of investors with respect to maturity, yield, avoidance of risk, and other factors. The identification issue is further complicated by variations in characteristics of financial instruments across countries and variations in national practices on accounting and classification of instruments. These factors tend to limit the scope for firm recommendations with respect to the treatment of certain transactions within the SNA. Thus, a substantial amount of flexibility, particularly with regard to further breakdowns, is required to match the classification scheme to national capabilities, resources and needs. In particular, further breakdowns of the standard items are desirable for many countries to distinguish important types of assets within categories (such as short-term securities included in measures of money).

More clarity is required on how to apply the distinction between Other Account Receivable / Payable versus Loans, see 12.64 and 12.136.

12.70. Unclear why Utility tokens are in Debt Securities rather than *Other Accounts Receivable / Payable rather than Debt Securities since Utility Tokens are providing payment in advance. If utility customer transfers the same amount of money from his bank account automatically each month to his utility account, then presumably this would be treated as Other Accounts Receivable / Payable. Given Utility Tokens are similar in nature to a regular bank transfer more clarity is required on why Utility Tokens have been put into Debt Securities. See below text.*

12.23 refers to the distinction between actual liabilities, provisions and contingent liabilities. However, it does not make clear the recording treatment for provisions created by corporations to cover unexpected events or to cover default by their customers, stating only that standardized guarantees are treated as actual, and not contingent, liabilities and that probabilistic liabilities of this sort are often described as provisions. To avoid confusion, it would be helpful to distinguish in this paragraph provisions under standardized guarantees (treated as actual liabilities) from other types of provisions that are not treated as liabilities under SNA.

See, for example, SNA 2008: "A corporation may set aside funds to cover unexpected events or to cover default by their customers. Such monies may be described as provisions. These are not treated as liabilities in the SNA because they are not the subject of the sort of contract, legal or constructive, associated with a liability. Though financial institutions may regularly write off bad debts, for example, it would not be appropriate to regard the provisions set aside for this as assets of the borrowers."

12.34 describes 'implicit financial intermediation services on loans and deposits' and 'financial services associated with the acquisition and disposal of financial assets and liabilities in financial markets'. It may be helpful to reference where these concepts are discussed in chapter 7.

12.43 – It may be helpful to summarise how corporations may present consolidated accounts at the group level according to international accounting standards and that this is to be avoided under SNA.

12.45 describes unallocated gold as giving title to claim the delivery of gold. As SNA 12.65 makes clear, an unallocated account does not give title to gold. 12.45 is a mistake taken from 2008 SNA.

12.93 – "They may also take the form of equity crypto assets, which are similar to standard equity albeit with a novel technology for being created, allocated, transferred and managed." For how long will this technology be considered novel compared with the lifespan of the SNA? Perhaps another term describing the characteristics of equity crypto assets would be more appropriate.

The UK recommends emphasising the importance of having information on the currency composition of notional values (see paragraph 24 of the Guidance Note).

The UK Recommends not separating exchange rate changes from other revaluations for FX-instruments (less relevant for SNA).

The UK Recommends including guidance on the recording of novation and portfolio compression (see paragraph 26 of the Guidance Note).

The UK recommends clarifying cases where net recording (i.e., assets minus liabilities) is acceptable.

Highlighted global consultation comments – Link to all comments

OECD - *12.77: Crypto assets that qualify as debt securities have been added as a separate category next to short-term and long-term debt securities. We are wondering whether that would* *make most sense as they could also concern short- and long-term ones and users may just be interested in this breakdown for the full asset class. In that regard, the breakdown into crypto assets that qualify as debt securities and other debt securities may better be presented as an additional breakdown (which may be considered when the share of debt securities in the form of crypto is relatively large).*

European Central Bank - *In 12.65 unallocated gold accounts are said to be classified as deposits on the liability side while 12.45 says that they should be classified as monetary gold if held by the central bank (and also classified as reserve assets). This is an obvious inconsistency. Moreover and as a result of this, the instrument classification of unallocated gold accounts as an asset depends on its functional classification. We believe that should never be the case and that the instrument and functional classification should be totally orthogonal (this is actually the only case where this happens).*

We suggest that unallocated gold accounts are always classified as deposits. They should also be classified as reserve assets if held by the central bank, but without affecting their instrument classification as deposits.

Chapter 14 – The Balance Sheet

Section	Sub-section	Paragraphs
B. General Principles of Valuation		14.18 - 22 (Observable market prices)
	2. Values obtained by accumulating and revaluing transactions	14.27 (PIM is usually applied)
	3. Present value of future benefits	14.28-9 (NPV)
C. The entries in the balance sheet	1. Produced non-financial assets (excluding natural capital)	14.37 (Military weapons)
	2. Non-produced non-financial assets (excluding natural capital)	14.49 (Crypto assets without a corresponding liability)
		14.57-58 (Mineral and Energy Resources)
		14.59-14.63 (Biological Resources)
		14.85-89 (Valuing unlisted equity)
		14.94 Claims of pension funds on pension managers
		14.101 (Emissions permits)
6. Supplementary items		14.112 -3 (Concessional lending)

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		14.115 (Accounting for provisions)

UK Comments

General

The UK are generally satisfied with this chapter.

Specific

14.29 as per our response to para 11.191: - the method described fails when the price of the costs of extracting the asset effectively internalise the value of the asset itself. Value accrues to the scarcest asset, as is well known in economics, which in this instance will be the extractive technology (e.g. wind turbines) and hence the residual value is generally biased downwards, leading to the natural resources being under-valued and sending a misleading signal to decision makers that the impact of extraction is less than in reality, suggesting the social optimum rate of extraction exceeds reality. This is clearly not the intent of this change, and the UK advises that this method should be rapidly scrutinised. It would be better to not make this change than for our data to misleadingly lead to over-extraction and consumption of natural resources.

14.67 “Repayable margin payments in cash related to financial derivatives contracts are included in other deposits.” Missing context: ...if the debtor’s liabilities are included in monetary aggregates’ broad money. Otherwise, they are included in accounts receivable/payable or as a loan. (It would be useful to include the scenarios under which repayable margins are to be recorded as accounts payable/receivable or as loans.

14.73: BPM Chapter 7.44-1 text on resetting the value of loans that have deteriorated due to publicly known events is different from that in the SNA 14.73.

Highlighted global consultation comments – [Link to all comments]

Italy - *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, ?)."*

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.*

Chapter 17 – Capital Services

Section	Sub-section	Paragraphs
D. Applying the capital service model	6. Terminal costs	17.58 – 17.60 (Terminal costs)
E. Capital measurement		17.69 – 85 (All aspects of capital measurement)

UK comments
General

The UK is generally satisfied with this chapter.

Specific

17.22 - The UK continues to dispute that geometric distributions should be the default. Different assets should have the correct distribution applied consistent with their characteristics. The UK would therefore remove this addition.

Highlighted global consultation comments – Link to all comments

Italy - *The recommendation of using geometric depreciation as the default option for calculating capital stocks and consumption of fixed capital is in contrast with what established by the European Task Force FIXCAP, which recommends to using a convex cohort depreciation function, in accordance with the 2009 OECD Manual Measuring Capital. 2025 SNA should emphasize using a convex cohort depreciation function (geometric depreciation or a combination of age-price and retirement profiles, depending on the availability of information, data and technical capacity).*

OECD - *17.47: The paragraph explains that "after allowing for all intermediate costs, labour and the capital services of all nonfinancial assets used in production including any rents paid on the use of non-produced non-financial assets, what is left must represent the resource rent of the natural resource", but this is not correct. The resource rent includes rents paid and provides a value of the unsplit asset. It is only in a subsequent step that we estimate how much the government appropriates of the resource rent (consisting mostly of rent payments) and split the asset.*

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Chapter 18 – Measuring Prices, Volume and Productivity

Section	Sub-section	Paragraphs
B. An overview of index number theory	4. Causes of price variation	18.87-18.93 (Hedonics)
C. Derivation of volume measures in the national accounts	5. Volume measures of the output estimate of GDP	18.130 (Non-market output of government and NPISHs)
	8. Volume measures for stocks of non-produced natural resources and depletion	18.180 – 18.183 (Natural resources stocks)
E. Volume and price measures for particular products or industries		18.212 – 18.222 (Agri & Construction & Digital Goods and Services)
	4. Passenger transport services and price discrimination	18.229-18.232 (Price discrimination)
	5. Output of the central bank	18.233
	6. Implicit financial services on loans and deposits	18.234 – 18.238 (Charges)
	7. Services of owner-occupied dwellings	18.239-18.244
	8. Education services	18.245-18.246
	9. Health services	18.247-18.249
F. Estimating labour and multifactor productivity	1. Labour productivity	18.250 – 18.259
	2. Capital productivity	18.260 – 18.262
	3. Multifactor productivity	18.263 – 18.266
	4. Productivity comparison across countries	18.308 – 18.309

UK Comments

General

This chapter discusses the issue of measuring changes in real income. There are strong theoretical arguments (Weitzman, 1976, Sefton and Weale, 2006) that, if real income is intended to be an indicator of well-being, the appropriate deflator for nominal income is the consumption deflator (taking public and private consumption together). The implication is of course that the terms of trade effect extends to investment goods as well as net trade. The logic is that if investment goods become relatively cheaper, less future output should be expected from them. If the consumption measure is used, then the components associated with trade net out over the world economy and the only adjustment which remains is from any change in the price of investment relative to consumption. At the national level the same deflator should be applied to net property income from abroad.

To address this in the chapter it would be necessary to add to 18.197.
"We proceed from here to a discussion of measuring trading gains and losses associated with changes in the terms of trade. We note however that a good case can be made for an alternative approach which focuses on the price index of consumption. That is discussed in section D4 below".

Specific

Section D4 (new)

An alternative, and in some ways simpler approach is to use the consumption deflator (taking public and private consumption together) to convert nominal incomes to real values. Weitzman (*Quarterly Journal of Economics*, 1976, Vol 90 pp. 156-162) discusses the use of a measure of real income defined in this way as an indicator of welfare and Sefton and Weale (Review of Economic Studies, 2006, Vol73, pp. 219-249) show that this approach can be extended to address terms of trade issues. The implication is that "terms of trade" effects apply to investment goods as well as to exports and imports; if pricing is efficient and investment goods become cheaper relative to consumption, less future benefit should be expected from them.

If this approach is used the term P in paragraph 18.201 has to refer to the consumption deflator and point a in section 18.207 becomes
a Gross domestic product deflated by consumption
plus the trading gain or loss resulting from changes in the terms of trade and investment price effects.

The other elements of the path remain unchanged, but of course with the proviso that the deflator used is the consumption deflator.

Para 18.131: Guidance Note DZ1, which was endorsed by AEG and made the following recommendation:

Chapter 15 of the SNA covers the issue of measurement of non-market output, but paragraph 15.123 then sounds a note of caution:

"15.123 It is recommended these volume indicators be tested for a substantial period of time with the aid of experts in the domain prior to their incorporation in the national accounts. Expert advice is particularly relevant in the areas of health and education,

which usually dominate the provision of individual services. Further, the consequences of the estimates including the implications for productivity measures should be fully assessed before adoption. Unless and until the results of such investigations are satisfactory, it might be advisable to use the second best method, the "input method"."

Given the improvement in data management systems and the demand for more evidence in policy-making, alongside the developments in techniques in this area it seems an appropriate time to revise this paragraph to now read:

"15.123 It is recommended these volume indicators are tested with the aid of experts in the domain prior to their incorporation into the national accounts, and the impacts fully assessed, in line with other revisions.*

It is unclear to us why this endorsed recommendation has not been implemented in the text.

Section 10: It is unclear why no reference is made to monthly estimates. If one is considering quarterly and annual, and this document could be expected to live for another fifteen years, it surely needs this section to be future-proofed by the inclusion of monthly.

Section F: We believe this would fit better in the Labour Accounts chapter.

Para 18.268: PPPs are a valid method for comparisons of consumption-side data when they are derived from purchases data. Work published in Eurona on production-side PPPs are of far more value when considering supply-side issues, such as productivity comparisons. This difference should be highlighted in the text.

NSCASE

Martin Weale: This chapter discusses the issue of measuring changes in real income. There are strong theoretical arguments (Weitzman, 1976, Sefton and Weale, 2006) that, if real income is intended to be an indicator of well-being, the appropriate deflator for nominal income is the consumption deflator (taking public and private consumption together). The implication is of course that the terms of trade effect extends to investment goods as well as net trade. The logic is that if investment goods become relatively cheaper, less future output should be expected from them. If the consumption measure is used, then the components associated with trade net out over the world economy and the only adjustment which remains is from any change in the price of investment relative to consumption. At the national level the same deflator should be applied to net property income from abroad.

To address this in the chapter it would be necessary to add to 18.197.
"We proceed from here to a discussion of measuring trading gains and losses associated with changes in the terms of trade. We note however that a good case can be made for an alternative approach which focuses on the price index of consumption. That is discussed in section D4 below"

Section D4 (new)

An alternative, and in some ways simpler approach is to use the consumption deflator (taking public and private consumption together) to convert nominal incomes to real values. Weitzman (1976) discusses the use of a measure of real income defined in this way as an indicator of welfare and Sefton and Weale (2006) show that this approach can be extended to address terms of trade issues. The implication is that “terms of trade” effects apply to investment goods as well as to exports and imports; if pricing is efficient and investment goods become cheaper relative to consumption, less future benefit should be expected from them.

If this approach is used the term P in paragraph 18.201 has to refer to the consumption deflator and point a in section 18.207 becomes

a Gross domestic product deflated by consumption
plus the trading gain or loss resulting from changes in the terms of trade and investment price effects.

The other elements of the path remain unchanged, but of course with the proviso that the deflator used is the consumption deflator.

Highlighted global consultation comments – [Link to all comments]()

OECD – “*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.*“

Annex B - Global consultation comments

Chapter 7 Production Account

Japan

Paragraphs: 7.228 and 7.229 (Staking of crypto assets)

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

Switzerland

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

Individual Responder

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

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

Israel

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

Eurostat

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

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

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

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

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

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

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

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

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

7.103: Exclusion of city parks and historical monuments seems a bit arbitrary. Cycling lanes along a river? Bridle paths? National parks? How should this return to capital be estimated in harmonised way? It seem no further guidance is given. Also, aren't the historical monuments a produced asset, so that using including return to capital and depreciation would result in some double-count? Or is an interest measure meant with this? **[This is not a point that ONS raised in its submission, but we have a sympathy for this point. The distinction proposed feels arbitrary, and given the range of work being produced in the UK (DCMS) on this topic, we feel a deliberate exclusion would be unhelpful.]**

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

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

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

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

In **paragraphs 7.194**:

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

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

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

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

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

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

In **paragraphs 7.227-7.230** it should be recognised that the recording of crypto leads to impact on net lending/borrowing (B.9). When the police confiscates bitcoin from criminals

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(not uncommon) it will be treated differently than the confiscation of bank accounts and cash money. This is not satisfactory considering the liquid nature of the asset. Maybe recent events indicate a need to reexamine whether the proposed solution should indeed be used or whether it may not be a more prudent option to consider the crypto assets as financial for the time being. This would be in line with preliminary treatment of ETS before ISWGNA had considered the issue. **[The ONS continues to support this proposal.]**

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

Does **7.285** say that for cultivated forest, that is not harvested at the optimal time, additional capital formation should be recorded? That is rather counter-intuitive. While possibly beneficial from an environmental point of view (but not necessarily in a cultivated landscape), intuitively the economic value of the timber decreases when it is left standing after the optimal time. E.g. timber stems that you cut can be used for furniture, or at least building material, while timber that falls is almost always only suitable for shredding & fuel.

Para 7.165: Individual bank supervision is distinct from macroprudential supervision and may be explicitly mentioned: "…services related to promoting financial stability, including regulation, bank supervision and macroprudential supervision; ..."

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

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

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

Para 7.237: "Intermediate consumption consists of […], excluding fixed assets whose consumption is recorded as depreciation.". In the SNA 2025 "fixed asset" (AN.11) is a sub-category of "Produced non-financial assets (excluding produced natural capital)" (AN.1).

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However, some natural capital is also subject to depreciation. AN.3 now includes some "produced assets" and "produced inventories" as well as some non-produced assets. One could add in §7.237, after the words "fixed assets", something like "and that part of natural capital".

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

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

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

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

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

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

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

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

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

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Netherlands

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

Colombia

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

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

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

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

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

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

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

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

European Central Bank

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

OECD

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

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

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

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

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

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

7.283: Should it also explicitly be explained why depletion is not considered for other types of non-produced non-financial assets (in line with the explanation in 7.265 that depreciation is not calculated for valuables)? **[This is an interesting point which ONS is considering further.]**

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

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

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

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

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

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

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

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

Germany FSO

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

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

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

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

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

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

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

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

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

Sweden

<u>Non-market output</u>

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

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

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

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

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

Some general comments on depreciation and depletion

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

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

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

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

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Depreciation

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

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

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

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

When information on prices on the second-hand market of goods is available these are used to estimate depreciation. The difference between the market prices of a new investment good and a one-year-old good at the same point in time does, in economics, account for the depreciation in nominal terms. By using this kind of information, the conclusion of some research has been, that the depreciation pattern is close to geometric, i.e. the same rate in relation to the net stock value. In national accounts the current replacement cost follows the same development as the price for new investment goods. So, when the change in market prices differs from the change in supply prices of new goods depreciation will differ from consumption of fixed capital.

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

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

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

We propose the following wording for para. 7.264:

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

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

Relative efficiency of fixed assets

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

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

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

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

We propose the follow wording of para 7.278 through 7.282:

Relative degree of utilisation

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

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

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

Rates of consumption of fixed capitalconsumption of fixed assets

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

Values of consumption of fixed capitalconsumption of fixed assets

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

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The production boundary

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

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

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

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

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

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

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

We propose the following wording of para. 7.27:

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

- *The production of all goods or services that are supplied to units other than their producers, or intended to be so supplied, including the production of goods or services used up in the process of producing such goods or services;*
- *The production of all goods, produced on own-account within the same unit producing for the market, that are retained by their producers for their own final consumption or gross capital formation;*

- *The own-account production of primary products that makes a significant contribution to the economy.*
- *The own-account production of knowledge-capturing products that are retained by their producers for their own final consumption or gross capital formation but excluding such products produced by households for their own use;*
- *The own-account production of housing services by owner occupiers; and*
- *The production of domestic and personal services by employing paid domestic staff.*

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

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

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

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

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

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

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

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Chapter 11 Capital Account

Eurostat

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

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

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

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

OECD

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

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

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

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

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

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

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

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

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

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

SA Biodiversity Consultant

11.180 Paragraph on ecosystem assets.

Includes the sentence: "Ecosystem assets are not recognised in the system of national accounts, *mainly because no monetary benefits can be derived from them*." This is surely not

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the correct reason? Many ecosystem assets provide ecosystem services that have direct monetary benefits. Provisioning services are noted in the paragraph as an exception, but they are not the only exceptions. Monetary benefits are also derived from regulating services such as flood regulation that prevents damage to property and cultural services such as nature-based tourism.
There is recognition elsewhere that some ecosystem services provide direct monetary benefits, e.g 1.66.

Germany FSO

11.41 It should be explained how solar panels, wind power plants, geothermal and heat pumps of household sector are included (under which asset in asset classification), and among other to ensure consistency with para 7.27 on production boundary. User-generated content on digital platforms produced by households fulfilling the criteria of assets (IPPs), as discussed in para 11.121, could be also mentioned in this paragraph to clarify the treatment.

11.312 The definition of depletion uses term “non-produced natural resources” (also commented under Ch7). Non-produced natural resources consist of land, mineral and energy resources, water resources, other natural resources and uncultivated biological resources (= non-produced). From all of these “non-produced natural resources”, depletion is only relevant for 1. non-renewable mineral and energy resources and 2. uncultivated biological resources yielding once only products.

In this context and to avoid confusion and false expectations, the use of “non-produced natural resources” in this definition should be reconsidered.

Sweden

The radio spectrum

Comments: The inclusion of the radio spectrum as a natural asset is a little bit odd. The benefit of statistical descriptions is that they correspond to the real world both in physical and conceptual respect. In SNA as well as SEEA the physical description should first and foremost be accurate. The second step is to give the quantities a common accounting unit. In SNA this is the monetary unit. Looking on the issue of radio spectrum from a physical point of view reveals that payments for the use of radio frequencies should not be recorded as rent. The radio spectrum is not a natural resource in a physical sense. It describes the variation in the wavelength of a natural phaenomena (a force) like magnetism or radiation in general caused by the interaction of natural resources. Electromagnetic radiation (waves) is a flow of energy emitted by charged particles (electric currency). Electromagnetic radiation can also be generated by transmitters created by human ingenuity.

Government has regulated *the activity of generating electromagnetic waves* by allocating the frequencies/wavelength that each telecom operator is allowed to use in its economic activity. Operators using the same wavelength would otherwise face the risk of interfering with each other to the harm of both parties. The permission to use a specified part of the bandwidth is like organising the traffic to avoid accidents.

The issue of the radio spectrum also reveals that the view that what can be used to generate revenue and income must be a kind of asset is not a good indicator of what to include in the SNA asset boundary. When governments sold the right to use specific frequencies it was thought that government had an asset that was partitioned (licenced) to users for a specified time. This was not the case instead government wanted to regulate the use of the limited bandwidth of the microwave spectrum by allocating the utilisation of it to the telecom enterprises for mobile phone communication. The regulation was thought to be best implemented by the market and for this purpose the permission to use the bandwidth was allocated (sold) at auctions. In this sense the government allocated the bandwidth to users with the highest willingness to pay, thus reflecting the most efficient use of the limited capacity of the radio spectrum.

For the reasons mentioned above we are of the opinion that the radio spectrum should not be part of the SNA asset boundary. Payments for the possibility to use the radio spectrum should be regarded as payments for a permission. The payment to the government is a tax payment. If the permission is transferrable at a gain it should be recorded as a contract valued according to the gain above the tax payment.

Furthermore, the recording we propose also makes SNA and SEEA align on this issue.

We propose the following wording for para. 11.21 and 11.204:

Natural capital

11.21 As noted above, in the context of the SNA, natural capital is restricted to natural resources. These resources can be broken down into the following categories: land; mineral and energy resources, both non-renewable and renewable resources; biological resources; water resources; and a residual category other natural resources. As noted before, natural capital includes both produced and non-produced assets.

Other natural resources

11.204 The category other natural resources includes natural resources n.e.c. Given the increasing move to carry out environmental policy by means of marketintervention, it may be that other natural resources will come to be recognized as economic assets. If so, this is the category to which they should be allocated.

Fish resources under quota regime

Comments: Natural resources enter the economy by activities of extraction, logging, hunting and fishing. In case the area (space) and the natural resources located in the area, are under legal ownership and control, the resources should be included in the balance sheet of the owner. Control can be evidenced by the possibility to separately from land (or space in general) transfer the entire resource in exchange for money. Otherwise, the resource is an indistinguishable part of the land value, or it is only permitted to be used by the government alone or as part of international agreement.

The role of government is to allocate the use to economic agents according to the national legislation. Natural resources that are permitted by government to harvested on common grounds or the area owned by other units should not appear in the balance sheet of the SNA standard accounts. In this sense legal ownership and economic ownership of natural resources are identical.

Permissions to harvest a natural resource can if transferable be regarded an asset included in the category of contracts, leases and licenses.

A fishing quota is a permission to harvest a specified quantity of the fish stock in a given geographical location. There is no guarantee that the harvest will be successful and furthermore, ownership in a physical sense means ownership rights and control of particular items and fishing quotas and other permissions rarely specify which items to be harvested. Transferring the fishing quota is therefore not the same as transferring part of the fish stock, but only the right to fish a specified quantity out of the stock.

Logging rights are usually for specified trees or area which means that the items are known. Logging rights are normally valid for a longer period (several years) but the trees are still owned by the forest land owner. When logging takes place, the trees are sold under the terms in the logging contract to the logging enterprise. If the logging right is unused within the specified time of permission, it is automatically transferred back to the landowner.

We propose the following wording for para. 11.22:

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11.22 Environmental assets refer to a broader concept and are defined as “naturally occurring living and non-living components of the Earth, together constituting the biophysical environment, which may provide benefits to humanity” (SEEA 2012 Central Framework). In macroeconomic statistics, environmental assets are only recognised in as far they meet the asset boundary, by providing monetary benefits to their owners, either individually or collectively. Assets over which ownership rights have not, or cannot, be enforced, such as open seas or air, are excluded.

<u>Valuation of forest land</u>

Comments: Valuation of forest land can be undertaken by several methods and the NPV is one but if there exist assessments made by independent experts these should be used prior to calculations dependant on assumptions made by the NSI or any other producer of NA. Regarding the regenerative potential please confer our view expressed in relation to paragraphs 7.264 and 11.234.

We propose the following wording for para. 11.220:

11.220 Two types of assets need to be considered and estimated for this type of cultivated biological resources yielding once-only products: the underlying asset, i.e., the forest land, and the work-in-progress representing the growth of trees. Market prices for forest land are usually not available, and need to be approximated.

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Timber resources

Comments: The valuation of standing timber should follow the principles of valuation of inventories. Inventories are valued according to the exchange value in the current period or current market price of the goods held in inventory. The nominal net growth of work in progress will in the case of standing timber be the increase in value between opening and closing balance.

The information needed for the purpose of estimating the standing timber is the quantity and prices broken down by diameter classes, region and tree species growing in the forest. The information on quantities is normally included in the forest survey. The prices of different diameter classes and tree species might not be available for all combinations. If this is the case the missing values should be modelled. If the price corresponds to the pick-up price at a road the costs of logging and transport to the pick-up place should be subtracted to reflect the value of the timber volume standing in the forest.

An alternative method if the principles of inventory valuation are not possible to apply is discounting of future revenue taken into account all relevant costs.

We propose the following wording for para. 11.221:

11.221 Work-in-progress related to cultivated biological resources yielding once-only products represents the accrual accounting of the growth of trees intended for the future production of timber. A distribution of output over the accounting periods of the growth of the trees in proportion to the costs incurred may not provide satisfactory results when looking at individual generations of trees, as a disproportionate share of the costs may be incurred in the beginning and the end of the period of growth. The growth of work-in-progress is preferably estimated as the difference between closing and opening stocks of standing timber. The stock is estimated by combining prices and quantities of standing timber broken down by age or size classes, tree species and region or whatever is the most appropriate. In case the price information reflects the sales price at a pick-up location the price needs to be adjusted for the costs of logging and transportation in order to reflect the value of standing timber.

Given the fact that the growth of trees is a more or less continuous process, the available price information can be interpolated and extrapolated to represent size or age classes of different tree species not represented in the price data that is collected by surveys.

Due to the considerable time it takes before a tree is mature enough for timber production, and if the price information only reflects the value of mature trees, it is important, however, that the growth of the trees in subsequent periods is appropriately discounted. For the farming of single-use plants and livestock which take more time to mature than the reference period (quarter, year), the guidance for the recording and estimation of work-in-progress is similar to that for other products; see section B2 of this chapter.

Terminal costs

Comments: The costs of restoring a production site after production has terminated are maintenance costs. Maintenance can be undertaken during or after the operation of a plant depending on what's the most cost-efficient regarding production including the risks of human life. Maintenance costs that are compulsory upon the permission of undertaking a particular economic activity, like a nuclear power plant, or agreed between the landowner and the producer are costs that need to be accounted for. But, since there is no payment or maintenance/restoration work undertaken until the production has terminated such future costs have to be recorded as provisions in the same way as social contributions set aside for later payment of pensions. Accounting for costs in a social accounting framework like SNA must be done for the periods the human effort is used or the output of goods of previous human effort is used up in the restoration after production has terminated.

The cost for the decommissioning of nuclear power plants has no impact on the usefulness and value of the plant. The construction of the plant is made by human effort, and this investment represents the social cost of the plant. Social cost shall be charged equally against the output in volume terms to derive net operating surplus. The radioactive contamination has an impact on the distribution of consumption of fixed assets only if it reduces the output in volume. The plant will, otherwise, work as usual and the construction costs of the plant shall therefore, in the same way as for other investment goods, be accounted for as consumption of fixed assets in relation to the output.

Decommissioning regards mainly nuclear fuel and the plant. These costs are due to the waste from production and externalities made to the construction and removal is necessary if the site shall be used for other purposes than nuclear technical activities. In this sense decommissioning restores the site into a state it previously had. The decommissioning work is primarily the handling of nuclear waste and contaminated material to reduce the negative externalities of the production activities undertaken on the site. Removing the externalities are in most cases current costs recorded at the time the activities take place. In case there is land improvement included in the decommissioning costs this part is recorded as capital formation in the accounts of the landowner.

We propose the following wording for para. 11.229 through 11.231:

Terminal costs

11.229 Terminal costs that follow from agreements between the producer and the landowner or from legislation are recorded as costs of production in the periods they arise. In lack of detailed data it is recommended to assume that terminal costs arise in proportion to the volume of output produced.

Since the externalities from production is restored or compensated after production has terminated these costs are not paid in the same period they arise. The recording in the production account is done in the same way as for the provision of pensions recorded as a cost when the liability arises and when not funded in a segregated account (paid to an insurance enterprise) also recorded as a liability in the accounts of the enterprise.

Terminal costs can in principle be current and capital costs. In the case of the decommissioning of a nuclear power plant most of the costs are current. These include the safe transportation and storage of nuclear fuel waste and demolition and safe storage of the structure and equipment. If the land underlying the power plant is improved in relation to the situation before the plant was built these costs are capital and should both be included in the provisions recorded as production costs and recorded as a capital transfer. Costs on land improvement, are recorded as a payable capital transfer for the period the land improvement is made and included in the accounts of the landowner as a receivable capital transfer and correspondingly reducing the provision asset of the landowner.

11.230 In practice it might be difficult to separate capital costs from the total of terminal costs and in such cases the entire terminal costs should be recorded as current costs in the period the termination activity is undertaken. The costs are reducing the corresponding liability. In case the provisions made, accounted as a liability, are short of the actual terminal costs then the difference is recorded as production costs of the enterprise responsible for the termination of the plant at the time decommissioning takes place.

~~11.231~~ should be deleted.

Chapter 12 Financial Account

Germany Bundesbank

Paragraph 12.136 currently states that margins always remain with the original owner ("Ownership of the margin remains with the unit that deposited it."), which was previously only the case for repayable margins, and that they must be recorded ("They are recorded as an increase or decrease in deposits, loans, or other accounts receivable/payable with a corresponding entry in a decrease in financial derivative assets or liabilities."), which was previously the case for nonrepayable/variation margins. It seems questionable whether the restriction "In organized exchanges and clearing houses,..." represents a clear distinction between the two variants of margins.
In our view, the current text is misleading and contradictory. If the term repayable/nonrepayable margins is to be discontinued, another distinction must be made to distinguish between the different accounting methods.

Japan

Paragraphs: 12.80 and 12.81 （Lending crypto assets）

The treatment in the SNA of the lending of crypto assets requires clarification. Conceptually, different types of lending transactions according to the combination of assets could be envisaged: (1) cash vs NLCA (Non-liability crypto assets used as a means of payments), (2) stablecoins vs NLCA, and (3) NLCA vs NLCA. In the current 2025 SNA, securities repurchase agreement and security lending transaction are regarded as financial transactions and are classified as "loans" in Chapter 7 (paragraph: 12.80). Additionally, Chapter 7 (paragraph: 12.81) explains as the following: If a securities repurchase agreement does not involve the supply of cash (that is, there is an exchange of one security for another, or one party supplies a security without collateral), there is no loan or deposit. In the case of NLCA lending, the assets lent are non-financial assets.

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One question arising from this treatment is whether (1) cash vs NLCA lending should be regarded as a financial transaction. A second question is how to treat (2) stablecoins vs NLCA and (3) NLCA vs NLCA lending transactions. Further explanations to clarify those issues should be included in the 2025 SNA or supplementary documents, such as a compilation guidance.

Eurostat

Para 12.8: "…Financial claims represent all financial instruments that give rise to an economic asset that has a counterpart liability, including shares and other equity in corporations…". This addition is redundant and may be deleted. "Financial claims" have just been defined in 12.7.

Para 12.105: "…Therefore, in order to distinguish when **non-financial units** acquire instruments such as securities and equities directly …". Why limit to non-financial units? Replace with "investment fund shareholders"?

In 2008 SNA, 11.45 and 11.60 somewhat contradict each other in relation to the treatment of unallocated gold accounts with non-residents, with 11.60 suggesting a treatment as AF.2 (which would create a consistent system) and 11.45 creating an inconsistency in the system by suggesting an AF.11 asset matched by an AF.2 liability. Draft chapter 12 reinforces the inconsistent view in **12.65**. The reasons for choosing such a conceptually inconsistent treatment are not quite clear, instead of opting for the AF.2 option in both assets and liabilities, which does not contradict the quadruple accounting system of the SNA.

12.46 Could the wording of "other investment, currency and deposits" be adapted to SNA instrument names?

12.52 What does "with maintenance of value" mean?

Para 12.18: Intermediation is usually distinguished from financial market. In addition, banks do not take deposits to provide loans; they provide loans (creating deposits) and take deposits (they created or not) simultaneously. Generally, there is a confusion between the concept of net borrower/net lender and the one of investors/issuer of liabilities. HH, net lending sector, take loans. NFC, net borrowing sector, invest in financial assets. We suggest the following adjustments: "In many other cases, financial intermediaries have as their special function ~~the creation of a financial market that links~~ matching of lenders' (investors) and borrowers' needs ~~indirectly~~. […] The financial institutions incur~~s~~ liabilities to investors ~~net lenders~~ through taking deposits or issuing securities and providing the financial resources thus mobilized to borrowers…"

Para 12.81: We doubt about the usefulness of the addition "However, margin calls in cash under a repo are classified as loans." GN F.10 does not foresee different treatment of cash provided initially in a repo and subsequent margin calls. As indicated in GN para 50, margins can be classified as loans, deposits or other accounts, and not as loans only.

Para 12.112: "real estate" should not be deleted, as investment funds can invest in real estate. Only if their income comes from real estate activities for more than 50% are they reclassified as non-financial corporations. We suggest leaving "real estate" and adding a clue to reflect this feature.

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

OECD

12.77: Crypto assets that qualify as debt securities have been added as a separate category next to short-term and long-term debt securities. We are wondering whether that would make most sense as they could also concern short- and long-term ones and users may just be interested in this breakdown for the full asset class. In that regard, the breakdown into crypto assets that qualify as debt securities and other debt securities may better be presented as an additional breakdown (which may be considered when the share of debt securities in the form of crypto is relatively large).

12.69: "Money market instruments" is added as an additional example of debt securities. However, as certificates of deposit and commercial paper are examples of money market instruments, it may be better to talk about "other money market instruments". This may avoid any confusion.

12.70: It would also be good to refer to 'debt tokens' as more common crypto assets that would qualify as debt securities. They represent debt instruments such as corporate bonds but relying on cryptography. It may be important to clarify that, as otherwise readers may think it only concerns utility tokens and crypto assets designed as a medium of exchange within a platform only. This may also require some changes in 12.77.

12.84: In view of the emergence of crypto lending, some text may need to be added on that as well.

12.120: The title 'Entitlements to non-pension benefits' could be further clarified by adding a reference to social insurance, as that is (if I understand correctly) what this item relates to, correct? This may help to distinguish it, among others, from 'non-life insurance technical reserves'. So perhaps 'Entitlements to non-pension social insurance benefits'.

Bank of Thailand

Paragraph 12.116 - "*Life insurance and annuities entitlements show the extent of financial claims policyholders have against an enterprise offering life insurance or providing annuities. The only transaction for life insurance and annuity entitlements recorded in the financial account is the difference between premiums less service charges receivable and claims payable."* The word, "claim payable", in life insurance and annuities entitlements session should be replaced with "benefits due" to make it consistent with chapter 24: Insurance and pensions.

Paragraph 12.92 and paragraph 12.94 - Subscription rights as a one of many components of equity and investment fund shares should be mentioned in the first paragraph of equity and investment fund shares session as well to provide the scope of the overview components for compilers. For example, "Ownership of equity in legal entities is usually evidenced by shares, stocks, depository receipts, participations, subscription rights, or similar documents.".

UK Statistics Authority

Sweden

Factoring

Comments: The description of the economic event is not accurate in the proposal for recording of factoring. The factor creates a relation with a producer or a retailer, but this relation is made after the sales has taken place and does not change the relation between the producer or retailer and their customers. Thus, reclassifying a trade credit into a loan when the factor undertakes the indirect financing is not a correct description of the relation between the involved parties. Instead, a new financial instrument or contingent liability is created between the supplier (producer or retailer) and the factor.

Furthermore, a loan is evidenced by documents that are non-negotiable according to para. 12.78 b. This is obviously not the case between the buyer (customer) and the factor. From a legal point of view the buyers are tied to the payment terms of the goods transaction. It is common that the invoice stipulate that a late payment means that interest and maybe a fee will be charged for the time of delay after the payment is due to be paid. So, it is only after the payment has become due that an interest will be charged and the terms becomes more like a loan. A reclassification of financial instruments is not to be recorded as a transaction. Reclassifications are recorded as other changes in volume (cf. para. 13.68).

To clarify the issue of factoring we propose the following wording of para. 12.87:

12.87 ***Factoring is a transaction in which a factor, which can be a bank, a specialized factoring company, or other financial organization, buys trade accounts receivable from a supplier at a discount***.

Factoring is commonly viewed as a purchase or sale of invoices transferring the legal right of the claim on the debtor to the factor. In factoring, the indirect financing by the factor to the debtor is treated as a loan, after the date the invoice has become due to be paid. The reclassification of the trade credit between the supplier and the buyer to a loan between the factor and the buyer is recorded in the other changes in volume account. The accounts receivable concerned are trade-related receivables arising from the provision of goods, services, or work in progress. There are two basic types of factoring: non-recourse and recourse factoring. In a nonrecourse agreement, the factor assumes the full risk of non-payment by the debtors at maturity and therefore

may charge the supplier a higher fee. In a recourse agreement, all or part of the risk is kept by the supplier. The factor may also keep a reserve that should be paid back to the supplier once the debtor pays its liability in full. The recourse is seen as a guarantee treated as a contingent liability for the supplier, which should therefore not be recorded unless and until being activated by the factor. The factoring income is treated as a fee paid by the supplier; see paragraph 7.xxx. The reserve held by a factor is classified as a deposit, a loan, or other accounts receivable/payable, following the recording of other cash collaterals (e.g., repayable margins for financial derivatives).

UK Statistics Authority

European Central Bank

In 12.65 **unallocated gold accounts** are said to be classified as deposits on the liability side while 12.45 says that they should be classified as monetary gold if held by the central bank (and also classified as reserve assets). This is an obvious inconsistency.

Moreover and as a result of this, the instrument classification of unallocated gold accounts as an asset depends on its functional classification. We believe that should never be the case and that the instrument and functional classification should be totally orthogonal (this is actually the only case where this happens).

We suggest that unallocated gold accounts are always classified as deposits. They should also be classified as reserve assets if held by the central bank, but without affecting their instrument classification as deposits.

12.58 Draft is too general. GN F.7 states only e-money issued by deposit-taking institutions are transferable deposits:
Members agreed with treating e-money used for direct payments to third parties—including for cross-border payments—as transferable deposits (Option 4) when they are liabilities of deposit-taking institutions.

12.81 The reference to margin calls being classified as loans is not in line with the recommendations on cash collateral. Unfortunately, there has not been any discussion on the treatment of margin calls during the 2025 SNA research phase and it is safer to drop this reference from here.

12.127 c To be in line with the way options and CDS are seen in the market, better say "at maturity, forwards payments can be positive and negative, while in options they are positive or zero"

Netherlands

End of paragraph 12.12: “In all cases …non financial accounts.” What is added here in the draft text is also mentioned in the last sentence of the paragraph. My suggestion would be “In all cases of transactions involving financial instruments mentioned above the first pair of entries appears in one or more of the non-financial accounts”.

First sentence of paragraph 12.23: ‘contingent assets and liabilities’ instead of ‘contingent liabilities’.

Paragraph 12.34: The second to last sentence seems to suggest that all increases in value over time for bonds represent interest. It should be made clear that this is only the case at the time bonds are repaid.

Paragraph 12.124: At the end the paragraph a reference is made to ‘usually other investments’ whereas earlier in the paragraph it was stated ‘usually classified under deposits’. This seems inconsistent.

Chapter 14 Balance Sheet

Eurostat

Parts of this chapter related to natural assets will have to be modified according to the work of the Natural Capital Task Team and the results of the subsequent AEG consultation. In particular:

Paras 14.51-14.55 on Land: we understand that land improvements (and as a result costs of ownership transfers) may be included in land (hopefully as a separate sub-component. This would make land partly "produced" and, as a result, "depreciable".

The "exclusion of the value of any other natural resources above and below it" (14.51), is also under discussion by the AEG and the OECD EG NC: more specifically the "underlying asset" of some biological resources ("forest land" - see also 14.62 - , "agricultural land") may indeed be included in land (hopefully as a separate sub-component). This would make land partly "depletable".

Paras 14.59-14.63: the text has to be revised to take into account the AEG consultation. The main issue is the probable separation of the underlying asset (agricultural land, forest land, ...) from the value of the biological resources (and probably its classification elsewhere, under land).

Concerning the valuation of the "timber work in progress" (14.62) the draft OECD handbook refers to the use of "stumpage price" to calculate the value of the inventories (to be separated from the value of the underlying asset). This could be added in the text. The valuation of wild fish in open seas is also still under discussion by the OECD EG NC. In our view, the separation of the underlying asset and the biological resources is always needed when using the NPV method: this is relevant also for "agricultural land" (see 14.59 where NPV is mentioned as a possible method).
The draft 2025 SNA text is giving more specific information on only some examples of resources (typically fish and timber) ignoring to provide conceptual general guidance which is relevant to know how to treat "residual resources" (such as water, other, ..). Should these residual resources be better covered?

Para 14.18: “…alternative valuation methods need to be applied to estimate what the prices would be were the assets to be acquired on the market on the date to which the balance sheet relates.” This sentence is hard to follow. May the editors find a simpler way to express this concept?

Para 14.39 concerns the costs of ownership transfer. Should “… on non-produced assets (other than land) are …” be changed to “… non-produced assets and natural resources (other than land) …”?

Para 14.67. “For deposits, […]. The amount of principal outstanding includes any bank interest i.e. interest net of and implicit financial services on loans and deposits due but not paid.” We suggest a reformulation for clarity. In fact, the implicit financial service is not “due”, it is an imputation, not a legal obligation. What will be due is the bank interest, i.e. the interest (SNA definition) minus the FISIM. Here we only refer to deposits, not to loans.

Para 14.73: “The values of loans […]. This amount should include any accrued bank interest that has been earned but not been paid, that is interest minus implicit financial services on loans. It should also include any amount of implicit financial services on loans and deposits (the difference between bank interest and SNA interest) due on the loan that has accrued and not been paid. In some instances, accrued bank interest may be shown under accounts receivable or payable but inclusion in loans is preferred if possible.” We suggest a reformulation for clarity. In fact, the implicit financial service is not “due”, it is an imputation, not a legal obligation. What will be due is the bank interest, i.e. the interest (SNA definition) minus the FISIM. Here we only refer to loans, not to deposits.

Para 14.100: “Interest due but not paid on other accounts receivable or payable may be included here but, in general, bank interest due but not paid on deposits,…” For consistency with paras 14.67 and 14.73.

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

We assume that the detailed classification of assets, not included in this draft, is still to be finalised. It would be useful to include it in the draft 2025 SNA version that will go to the AEG in October.

We could not check the decision tree for valuing unlisted equity as the image quality was too low.

Italy

§ 14.1 We suggest opening balance sheet and closing balance sheet in analogy with terminology used in row 5 and in analogy with para 14.8

§ 14.3 The reference to the case of finance leasing may be extended to other cases where the legal owner is different from economic owner such as of a PPP or a concession that is not only to the case of a financial lease.

§ 14.9 We suggest to also refer to other capital items which could include natural, human, social, beside physical/financial capital. These items can be identified separately and analysed in asset account.

Section 2: Since the section describes also liabilities accounts, the title of asset accounts should be adapted

14.21 It is suggested to clarify the difference between face value and nominal value (i.e. accrued interests)

The guidelines are clear, but some additions and new chapter paragraphs relating to important aspects such as valuation may need to be better clarified in terms of the main approaches adopted, i.e. market value, capital service contribution (accumulated and revalued) and value current net value.

Regarding natural resources, the chapter should emphasize the importance for the public sector and the consideration of not only market value (or net present value), but also non-market value. Furthermore, the discussion could include some examples of natural resources that could be useful to better clarify the conceptual aspects. Links between public sector and private sector natural resource elements need to be considered.

Germany FSO

Except for the application of residual value method, recommendation D.4 (para 53) has not been included here or in any other chapter (or not found).

The general concept of "an underlying asset" for natural resources is not clear. For example, which natural resources have underlying asset and which not, or whether all natural resources have an underlying asset or not, or if some underlying assets are implicit, while some explicit like in case of timber and forest land. The issue of existence or possibly non-existence of an underlying asset should be clarified for all types of natural resources including explanations on how exactly one should account for these underlying assets in the SNA (this may among other possibly involve GFCF, depreciation or depletion, OCV, ?).

OECD

14.3: The description of the recording of the situation "when a natural resource is the subject of a resource lease" is inconsistent with that in paragraph 27.16, where three possible situations regarding the rights to use of a natural resource are described. The second option presented there entails a resource lease and option 3 a splitting of assets. The current paragraph 14.3 lumps 2 and 3 together somehow.

14.48: Reference is made to "marketable operating leases, licences to use certain natural resources, permits to undertake specific activities and entitlement to future goods and services on an exclusive basis" as examples of "contracts, leases and licenses", but it is unclear which of these are recognized as assets in their own right and how double counting with the value of natural resources is avoided. This is an issue that pops up at several places in the SNA (see also comment to paragraph 13.32).

14.58: We recommend to remove the reference to "least-cost alternative", as the EGNC has come to the conclusion that this is not a valid method for use in a national accounts context due to is reliance on counterfactuals.

14.62: The text seems to suggest that most countries compile the asset value of trees for timber production and similar cultivated resources based on NPV of RRs which is unlikely. Most EU countries apply the so-called 'stumpage valued method' and/or value forest land based on some observed market transactions. The last sentence also seems confusing: forest land is the name for the land under forestry activity, so would be equal to the value of the land. For these reasons, we suggest rephrasing to "There exist a variety of methods to value timber resources and/or forest land including stumpage value methods, market transactions in land, and resource rent. It is recommended to clearly distinguish between two distinct assets, which need to be recorded separately under the relevant asset categories: (i) the work-in-progress representing the current stock of standing timber; and (ii) the underlying asset (or forest land) which captures the provisioning services of the asset in generating future timber growth.

The only thing is that certain paragraphs may need to be updated based on final classification of biological resources (in view of the AEG consultation).

European Central Bank

Paragraphs 14.86 to 14.89 describes the possibility of recording of negative equity for limited liability corporations. Such negative asset would fall under the concept "constructive liability" as it would not be based on legal obligations. Therefore the treatment contradicts 4.113 that says that constructive liabilities are generally not recorded in SNA and offers as the only exception the case of standardized guarantees.

14.11 it seems strange the reference to the capital account in this chapter on balance-sheets.

Sweden

Valuation of assets in the balance sheet

There seems to be some misunderstandings regarding the use of market prices in the valuation of assets. Produced assets (fixed assets and inventories) are valued according to their replacement costs at the time the balance sheet is made up. In case of assets still in production this corresponds to the market price of newly produced assets. Assets no longer produced are valued according to their estimated written-down current production costs.

Natural resources, non-produced assets and financial assets and liabilities should ideally be valued according to observable market prices or prices in the exchange between unrelated economic agents.

We propose the following wording of para. 14.18 and 14:19:

14.18 Ideally, observable market prices should be used to value assets and liabilities in a balance sheet. It is important though to make a distinction between the initial recognition of assets, and the subsequent valuation of assets. Regarding the initial recognition, i.e., the time at which the asset (or liability) enters the balance sheet, the relevant transaction value, in the case of financial assets adjusted for commissions and fees, should generally be used. For subsequent valuation, if there are no observable market or near-market prices because the items in question have not been produced and sold on the market in the recent past, alternative valuation methods need to be applied to estimate what the prices exclusive of wear and tear would be were newly produced assets to be acquired on the market on the date to which the balance sheet relates. This lack of data is likely to be the case for older non-financial assets.

14.19 For valuing non-financial assets, two basic approaches can be distinguished, the first one based on the market prices in the current period for same kind of assets, and the second one based on the contribution of capital services,

including depreciation, to the production process in the remaining service life of the asset. The latter approach is usually approximated by accumulating and revaluing acquisitions less disposals over its lifetime and adjusted for changes such as depreciation. Similar valuation issues may exist in the case of, for example, natural resources, the stocks of which are generally not traded in the market, so any values derived from occasionally traded stocks cannot be used for the valuation of similar assets, also because of the heterogeneity of the resources in question. In these cases, the value on the balance sheet can be approximated by the net present value of future benefits derived from these resources, which represent an alternative way of estimating the capital services to the production process.

Valuation of intellectual property products

Comments: Regarding the problems of valuing international transactions in intellectual property products we think that the issue need a good description. The problems mainly regard IPP originally produced under own account but later sold. The sales value and the value in the capital stock might differ substantially giving rise to a goodwill and/or a marketing asset.

It is common that global enterprise groups acquire corporations or subsidiaries of other enterprise groups located in other economies. The buy-up is not followed by merging enterprises since this isn’t legally possible, the restructuring is instead made by transferring part of the assets, notably IPP rights, from the acquired enterprise to a parent in the global enterprise group. This has, in a sense, the same consequences as the sale of an enterprise as described in para. 13.36. The price paid for the company and the value of the assets might not match and the difference should be accounted for as goodwill and/or marketing assets. The acquisition of companies is not observed in statistics but the later transfer of assets is in many cases captured in the BoP. The problem is to verify that the relevant values recorded in the national accounts for fixed assets etc. matches those reported in BoP.

It is important that the written-down replacement cost is appropriately described in the para. 14.26. Any reference to the prices on the second-hand market are making the issue ambiguous, it is not the development of the market prices of second-hand goods that is recorded in the NA. The replacement cost refers to the prices of goods produced in the current period which means the same period as the transfer of second-hand assets is recorded for. Maybe this is best understood in relation to inventories bought in a previous period and used as inputs in the current period.

The most comprehensive description of replacement cost we have noticed in the economic literature is found in Keynes “General theory…”, confer second paragraph of the first part of chapter 11, where it is stated:

'Over against the prospective yield of the investment we have the *supply price* of the capital-asset, meaning by this, not the market-price at which an asset of the type in question can actually be purchased in the market, but the price which would just induce a manufacturer newly to produce an additional unit of such assets, *i.e.* what is sometimes called its *replacement cost*.' (note that italics appear in the original text)

In relation to the present value of future benefits in para 14.41 it should be noted that when this method is used it should strongly correlate to the benefits of the unit that has produced the asset on own account, when used in the units’ economic activity prior to the sale as a second-hand asset. The reason for this is that it is common that prices of second-hand objects have been influenced by other factors than what’s related to the social cost of production. This is sometimes referred to as the market price for lemons and can also be understood as the price influence collectors have on rare second-hand objects. In this sense IPP is rare since it is only owned by one unit at time, under the R&D and copyright laws ruling in most countries. It should also be noted that the holding gains are captured by the changes in production costs or by other words the replacement costs.

We propose the following wording of para. 14.26 and 14.41:

14.26 Most non-financial assets change in value year by year reflecting changes in basic prices or market prices of newly produced goods used as assets. This is revaluation of the gross value according to the replacement cost principle. At the same time, initial acquisition costs are reduced by consumption of fixed capitalconsumption of fixed capital (in the case of fixed assets) or other forms of depreciationdeterioration over the asset's expected lifeThis valuation is sometimes referred to as the "written-down replacement cost". When reliable, this procedure gives a reasonable approximation of what the exchange price would be were the asset produced in the same period it is offered for sale.

14.3614.41 Originals of intellectual property products, such as computer software (including artificial intelligence), data and databases, and entertainment, literary or artistic originals should, according to the replacement cost principle, be entered at the

written down value of their initial cost, revalued according to the costs of the current period. Since these products often will have been produced on own account, the initial cost may be estimated by the sum of costs incurred including a return to capital on the fixed assets used in production. If value cannot be established in this way, it may be appropriate to estimate the present value of future returnsbenefits arising from the use of the original in production of the unit that has produced it on own account.

Terminal costs

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.

UK Statistics Authority

Eli Fenichel (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.

UK Statistics Authority

Chapter 17 Capital Services

Eurostat

Para 17.3: "…The assets concerned are any produced fixed assets (excluding natural capital), non-produced fixed assets (excluding natural capital), or natural capital assets which are used in an on-going basis on production." Referring to fixed assets here limits the scope of capital services, e.g. by excluding inventories. Para 4.295 includes inventories and NPNF assets in capital services. The two should be aligned in one direction or the other. The exact scope of capital services may be double checked also in paras 17.5, 17.8, 17.35.

Para 17.23: "By analogy, if the value of the capital services rendered by the asset in year **t=1** is b, Vt+1 = b/(1-df)." Should it be t+1 instead of t=1?

Para 17.29: "…when it is derived as a balancing item in the generation of earned income account?" "Earned" is missing.

Para 17.35: "…regarded as the repayment of **principle** from the element regarded as interest." Replace "principle" with "principal".

Para 17.41: If land is non-produced, wouldn't it be more correct to say that it cannot "deplete" instead of "depreciate"? This also regards para 17.43.

Para 17.45: see comment on paras 11.8, 11.191 etc. on the appropriateness of using "resource rent".

Italy

The recommendation of using geometric depreciation as the default option for calculating capital stocks and consumption of fixed capital is in contrast with what established by the European Task Force FIXCAP, which recommends to using a convex cohort depreciation function, in accordance with the 2009 OECD Manual Measuring Capital. 2025 SNA should emphasize using a convex cohort depreciation function (geometric depreciation or a combination of age-price and retirement profiles, depending on the availability of information, data and technical capacity).

Sweden

Chapter 17 should be moved further back in the SNA. The content of chapter 17 is not in line with the main principles of social accounting that should govern the SNA. This chapter belongs to the extended accounts part of SNA providing links between SNA and other theoretical perspectives.

OECD

17.47: The paragraph explains that "after allowing for all intermediate costs, labour and the capital services of all nonfinancial assets used in production including any rents paid on the use of non-produced non-financial assets, what is left must represent the resource rent of the natural resource", but this is not correct. The resource rent includes rents paid and provides a value of the unsplit asset. It is only in a subsequent step that we estimate how much the government appropriates of the resource rent (consisting mostly of rent payments) and split the asset.

17.48: This paragraph assumes that the regrowth is statistically observable, which discussion in the EG NC has shown that usually it is not. For that reason, we suggest to delete this.
17.81: This paragraph suggests that one applies a PIM to value mineral and energy resources, while one typically uses the NPV of resource rents where these rents are based on the residual value method. So, we suggest rephrasing.

17.41: Whereas there is no depreciation of land, it would be good to update the text to explain that land can be depleted.

17.45: It is explained that 'capital services' is another term for 'resource rent', but given the importance of measuring depletion, it would be important to already explain this much earlier on, also explaining that resource rent is split into a depletion element and an income element. Furthermore, it is referred to as a pitfall here, but that may not be very helpful.

17.59: It would be helpful to also point out that this recording satisfies the requirement that the sum of capital services rendered (1175) is equal to the depreciation (1160) plus income (15).

17.80: The last part of the last sentence (i.e., "which is the relevant variable for aggregation across different asset types") is a bit confusing. We suggest deleting it, also as aggregation is discussed later on.

Table 17.4: Replace the label "Consumption of fixed capital" within the table by "Depreciation".

17.69: We suggest to delete the first line, i.e., "Capital services is just one part of capital measurement in the SNA" as it does not add any guidance and it is disconnected from the rest of the paragraph.

17.85: We recommend removing the part that suggests that it may not be necessary to calculate the wealth stock in volume terms and that this should only be calculated if desired. Many countries have been producing wealth capital stocks by asset type and by industry in both current prices and volume terms for years. These data are also regularly collected by the OECD and Eurostat. In addition, these series of capital stocks in current prices and in volume terms have been used for the purposes of capital services measurement by different international organisations (e.g. EU KLEMS, Eurostat, LA KLEMS).

Germany FSO

17.47 "*...After allowing for all intermediate costs, labour and the capital services of all non-financial assets used in production including any rents paid on the use of non-produced non-financial assets, what is left must represent the resource rent of the natural resource...*".
Not sure that we understand what "rents paid on the use of non-produced non-financial assets" are. Is it here meant "return to other non-produced asset, i.e. those excluding natural capital (i.e. return to AN.2 assets)?

As regards recommendation D.7 (para 63), guidance on the measurement of capital services for inventories has not been included. No clarifications added on "the rate of return, including clear and consistent guidance on the use of discount rates" (or not identified)

17.1 & 17.2 both mention Table on capital services. It might be useful to indicate here that this table is a part of the integrated framework.

Chapter 18 Measuring Prices, Volumes and Productivity

Eurostat

Para 18.237: "[…]. In applying the deflated stocks approach, compilers should apply a general price index appropriate for the country and apply the previous year's margin between the effective interest rates and the reference rates to arrive at borrower implicit financial services and depositor implicit financial services in volume terms. […]". Let's assume that the reference rate and the price index are unchanged but the effective interest rate increases by 1%: this increase should be considered as a price change (in line with ESA 2010). With the original formulation, it would be a volume change. The ESA method rationale is that it is the margin, not the reference rate, which determines FISIM.

Paras 18.40 and 18.51: Correct reference needs to be included: chapter 8 of Quarterly National Accounts Manual (IMF, 2017).
Para 18.155: Correct references to included: "… described in Handbook on prices and volume measures in national accounts (Eurostat, 2016) and Towards measuring the volume of health and education and services (Organisation for Economic Co-operation and Development, 2009)."

Paras 18.180-18.183: the text has to be revised to take into account the results of the AEG consultation There are several issues here.

a) The availability of the estimates of physical stocks (18.180) may be true (in the EU) for certain assets (timber) while this is much more challenging for mineral and non-renewable energy resources.

b) Concerning the definition of depletion (18.181 and 18.182) as "decrease in stock" due to "extractions", this does not fit well with land: can we speak of "stock of land" and "extraction of land"?

c) The price of the natural resource in situ is applicable for some NR: timber and maybe mineral and non-renewable energy but not for others?

d) There is a probably confusion here (18.182 and 18.183) between the underlying object and the biological resources: for example it is said that "regeneration" (negative and positive) in cultivated natural resources yielding once-only product is to be recorded as depreciation and fixed capital formation, but this cannot be. Once the separation done between the underlying object and the biological resources, the "extractions of the biological resources" have to be recorded as changes in inventories, while the regeneration (negative and positive) of the underlying object (either forest land or agricultural land) cannot be recorded as depreciation/FCF, unless the underlying object is classified as "produced" (which sounds weird).

UK Statistics Authority

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.

UK STATISTICS AUTHORITY

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

NSCASE(24)19

NSCASE Review of Effectiveness

Purpose

1. This paper provides the results of the recent self-review of the effectiveness of NSCASE.

Recommendation

2. Members of the Committee are invited to review the results at **Annex 1** and discuss any themes arising.

Background

3. NSCASE is responsible for providing strategic, independent advice to the National Statistician on standards, guidelines, and classifications to produce economic statistics as set out in Terms of Reference (ToR). NSCASE ToRs are at **Annex C**.

4. In line with good governance practice, the Chair of NSCASE invited the committee and secretariat to undertake a self-review of effectiveness.

5. Members of NSACSE were asked to complete statements against which they were asked to indicate whether they 'agree', 'neither agree nor disagree' or 'disagree'. Respondents were also asked a series of questions about any concerns they may have in relation to NSCASE and things that NSCASE may conduct differently in the future. Of the 24 respondents who were asked, 12 completed the questionnaire. Responses were received from all NSCASE members. 15 ONS members were approached. 3 responses were received from ONS.

6. A separate response was received from Sir Ian Diamond, National Statistician, which stated: "NSCASE is excellent and gives great advice that reassures me fully. I welcome Martin Weale's transparency and the committee's assiduous study of the issues."

Discussion

7. The results of the self-review questionnaire are at **Annex A** as a prompt for a discussion. The key themes arising from this year's self-review questionnaire results are summarised below. The programme of work considered since July 2022 is at **Annex B**.

8. The key points highlighted by members were:

   i. the governance framework is broadly understood by members, but some ambiguity remains around NSCASE responsibilities;
   ii. NSCASE is operating within its TORs, however considerations were raised in the comments;
   iii. the Chair encourages an open and supportive environment which gives all members the opportunity to contribute to discussions;
   iv. members are receptive to others' views and value their contributions;

v. secretariat is generally accessible to all members and provides the appropriate support to members, but some considerations were raised;
vi. Other considerations were suggested by members on papers, agenda items, and the work programme.

9. The key points highlighted by ONS staff were:

    i. The discussions in the meetings are high-quality and showed expertise across numerous areas;
    ii. Notes the depth of knowledge within the Committee but would welcome more variety and diverse expertise in the future;
    iii. A desire for more clarity on the scope of the Committee;
    iv. Increased representation of expertise across, classifications, wellbeing/sustainability and financial sector.

10. Members of NSCASE were asked what they would like the Committee to focus on over the next year. Comments included:

    i. consider how NSCASE will change the balance of its activities after SNA2025 is published in March 2025;
    ii. Other economic manuals and guidelines;
    iii. Classifications;
    iv. Relationship between wellbeing measures and core economic statistics;
    v. Environmental issues.

11. Suggestions from NSCASE members of any further actions considering the results are welcomed.

Conclusion

12. The self-review provides members the opportunity to reflect on what is working well and where the committee may need to improve its ways of working.

NSCASE Secretariat

List of Annexes

Annex A **Questionnaire Results**

Annex B NSACSE ToR

Annex A Questionnaire Results: NSCASE Self Review of Effectiveness Questionnaire July 2024

1. Name

NSCASE Members

Nine NSCASE members participated in the review.

ONS Staff

Three ONS staff participated in the review.

Governance

2. The governance framework is understood.
   a. Agree (7 NSCASE, 2 ONS)
   b. Neither agree nor disagree (2 NSCASE)
   c. Disagree (1 ONS)

3. Provide further comments (optional)

It is understood but more likely to be remembered if we make use of the Nov 2022 Decision Making Framework for our deliberations and encourage ONS colleagues to frame their requests for advice in terms that fit with this Framework.

I think the advice line from the Committee to the National Statistician is clear. However, there remains some ambiguity about the topics that go to the Committee and where the boundaries of NSCASE's responsibilities lie.

In my opinion, the framework is neither deeply nor widely understood. I acknowledge that in part, this reflects it being new.

The Governance Framework for UK Statistics post-EU exit is still evolving, and both it as a whole and NSCASE's place in it are likely to keep changing to meet the needs of the statistical system. It is likely that until the UK is past the EU GNI period, and also until we have all been through one round of new standards outside of the Eurostat system, there is unlikely to be a settled governance framework for UK Statistics.

NSCASE advises on standards but seems to me there is always likely to be a little tension between standards in theory and standards in outcome. For example, if outcomes were problematic would NSCASE consider revisiting existing standards ex post to deliver better standards in practice.

4. NSCASE delivers its responsibilities in line with the Terms of Reference
   a. Agree (7 NSCASE, 2 ONS)

b. Neither agree nor disagree (2 NSCASE, 1 ONS)
c. Disagree (0)

5. Provide further comments (optional)

It might be good to have a standing item once a year to revisit the ToR. Even if we do not change it, we will be reminded of its existence and read it over.

The Committee has made progress in delivering its responsibility to advise on which standards to follow with the recent advice on SNA 2025, but this cannot be said on influencing the development of international statistical standards. The Committee's responsibility to provide advice on the suitability of current standards has perhaps understandably focused on a wide range of specific topics, e.g., prices, public services, non-monetary gold, environment etc, raised by ONS staff. However, the remit is to provide advice on "the suitability of current standards across the …. suite of economic statistics" implying a rather broader more structured perspective on the core economic statistics than adopted so far. See also my comments on questions 8 and 30.

There appears to be a difference in view about the scope of the committee. In particular between committee members and senior managers in the ONS. Whilst they do provide advice on standards and guidelines, its not always clear that their views are strategic.

It does - but ONS controls the agenda so not always clear whether all relevant topics are brought to the Committee.

On balance yes, but there are places where the committee (or members of the committee) stray beyond the stated remit. I'm sure the contributions are motivated by positive intentions but discussing them takes time and deviates attention from the key objectives of the meetings.

It is not clear how NSCASE is advising the NS on the methods by which the UK should influence the development of future international statistical standards and guidelines.

I still feel like the role and operation of NSCASE is in its early days, as touched on above, so this question may be more fully answered in time. I think it is still in question whether the committee with current time commitments the capacity to has really interrogate the propositions being put forward by the ONS. It may be that a secretariat which has more capacity and independence from the ONS could beef up our capacity.

Yes, I think so but we should consider how NSCASE might fit in with the review of economic statistics being developed by OSR, Separately there are profound challenges with the labour market statistics but Natl Statistician has not - to my knowledge - sought views on standards from NSCASE

Performance and Risk

6. NSCASE members are appropriately engaged in economic matters relevant to its work.
   a. Agree (6 NSCASE, 2 ONS)

b. Neither agree nor disagree (3 NSCASE, 1 ONS)
c. Disagree (0)

7. Provide further comments (optional)

There is a wide range of interests and experience on the NSCASE

Given the terms of reference, while vital the Committee has members engaged in economic matters, also vital is it has members with experience in compilation and/or methodological development of economic statistics. In my view the Committee would benefit from two more members with the latter experience.

They are knowledgeable and informed - the quality discussions during meetings is high. However, understandably, given the breadth of work undertaken about the ONS, there are more expertise on the committee in some areas than others.

Difficult to say. Those NSCASE members who commented on papers I presented definitely have relevant expertise.

Engaged through NSCASE? then yes. Engaged out with NSCASE? then a broader question.

8. Papers and/ or proposals submitted to NSCASE pay due regard to its remit and interest in influencing international economic statistical standards.
   a. Agree (4 NSCASE, 2 ONS)
   b. Neither agree nor disagree (4 NSCASE)
   c. Disagree (1 NSCASE, 1 ONS)

9. Provide further comments (optional)

Some papers are more focused in this regard than others. It would be helpful if ONS could refer to Nov 2022 Decision Making Framework and frame their requests for advice in terms that fit with this Framework

Recent papers have been on SNA2025 which NSCASE has not been in a position to influence.

The papers received on specific issues do broadly meet the remit particularly when they follow the structure agreed by the Committee in 2023. Recent papers on the SNA draft chapters have been well structured e.g., summary, background, ONS concerns, headings. However, I would prefer a more targeted approach on the SNA chapters both in terms of clustering related chapters together in the Committee's agenda, as at the next meeting with the financial aspects; and targeting the text in the papers presented towards discussion on: (1) issues about which the ONS staff have reservations on the revised guidance, (2) issues relevant for the U.K. economy that ONS staff consider are not adequately treated or not treated at all in the revised guidance. In addition Committee members could indicate in advance of the meeting any other issues arising from the draft chapters that they want to discuss.

This is potentially a difficult area given the ONS no longer has influence in Eurostat. However, papers have come to the Committee after responses on consultations have been sent. At times, I suspect the Committee would take a different view to the ONS respondent.

To date, I don't think NSCASE has demonstrated an interest in influencing the international standards as such. I have more often heard them consider why the UK may need to deviate from those standards.

See response to question 5. “It is not clear how NSCASE is advising the NS on the methods by which the UK should influence the development of future international statistical standards and guidelines.”

I agree to an extent, with the caveats as I give above. I would like to hear, when proposals come forward, more from other experts within the ONS, particularly those who are involved in some of the international committees who are discussing these standards.

But NSCASE doesn't seem to have much feasible influence.

10. NSCASE is appropriately engaged in the updates to economic manuals and classifications.
    a. Agree (4 NSCASE, 2 ONS)
    b. Neither agree nor disagree (1 NSCASE)
    c. Disagree (4 NSCASE, 1 ONS)

11. Provide further comments (optional)

Some of the work is after the date for consultation. In this case, the attention of the committee should not be on whether we agree or disagree with the drafting of the chapters but on whether it is in the best interests of the UK to follow the proposed new SNA2025 or set a different course.

NSCASE has not been able to influence the drafting of the chapters

In my view the Committee has not been engaged in the update of manuals and classifications.

The plan to review all SNA chapters is potentially more involvement than is needed. In my view, they should be there to refer to if there are areas which the ONS has identified as benefitting from further independent advice and discussion.

Responses have been sent without reference to the Committee and where the Committee is likely to have views.

Although I disagree, I don't this this objective was feasible for this set of updates to manuals. It seems to be that NSCASE was established too late to materially influence the pending set of updates to manuals.

I'm not sure about this, but perhaps this reflects my own capacity to engage proactively with a volume of material on this.

This would be a huge task and NSCASE relies on ONS to prioritise issues for consideration.

Skills and culture

12. NSCASE members have an appropriate and sufficiently diverse mix of skills, experience and backgrounds.
    a. Agree (7 NSCASE, 1 ONS)
    b. Neither agree nor disagree (2 NSCASE, 2 ONS)
    c. Disagree (0)

13. Provide further comments (optional)

As noted in the comments on question 6, in my view the Committee's make up requires two more members with compilation/methodological experience.

I value the broad range of interest and experience in the Committee membership.

There is a subtle difference here which is worth recognising: most experts are highly specialised and focussed on national accounts for decades. We have some of these people but also more of the 'user community' who sometimes have a greater willingness to challenge the shibboleths of national accounts fundamentals.

Important to reflect insights into the producer i.e. ONS and key consumers e.g., HMT, BoE, OBR. I cover all 4 but wider committee is a little weak on strong insights into HMT, wider government, and OBR.

14. Highlight any gaps in the current NSCASE composition that you think should be addressed.

Financial statistics

None

We are unable to appoint any practising City economists because of disclosure issues.

See comments on questions 6 and 12.

If they were to play a role in classification decisions, there would need to be a stronger balance within the committee of those with a background in economic statistics classifications or good knowledge of both the guidance and practical considerations of implementing classification decisions.

Nothing obvious.

None spring to mind.

I think it would also be beneficial to have additional members with either (1) experience of international statistics and frameworks and (2) experienced users of the statistics

It might be helpful to have occasional user representation on specific issues.

We probably need a sub-committee to tackle classifications issues, as that is a highly technical area.

An international representative? Maybe someone who is involved with the international classifications groups?

I don't have gaps in my knowledge of economic statistics but appreciate much deeper knowledge of others in specific areas e.g. Robert in relation to BoP. I think the committee could benefit from a little more capability on PSF but the interest and attention is naturally drawn to more novel areas in the SNA.

15. The Chair encourages an open and supportive culture in which all members feel able to contribute.
    a. Agree (8 NSCASE, 1 ONS)
    b. Neither agree nor disagree (2 ONS, 1 NSCASE)
    c. Disagree (0)

16. Provide further comments (optional)

The chair does a very good job.

The chair very much encourages an open and supportive culture. I consider it important that each member contributes on each paper presented by ONS staff.

However, sometimes discussions do feel curtailed by the lack of time.

Absolutely agree with this!

Good chairing, open and supportive discussion. Not all members contribute as much but option is there.

17. NSCASE members value each others' contributions.
    a. Agree (9 NSCASE, 1 ONS)
    b. Neither agree nor disagree (2 ONS)
    c. Disagree (0)

18. Provide further comments (optional)

Members listen and comment respectfully.

There is considerable respect shown by all members to other members opinions. The chair sets an excellent inclusive tone.

I certainly value the contributions of others.

Timing and quality of papers

19. Documentation issued in advance of meetings is available in a timely fashion.

a. Agree (6 NSCASE, 1 ONS)
b. Neither agree nor disagree (1 NSCASE, 2 ONS)
c. Disagree (2 NSCASE)

20. Provide further comments (optional)

Some of the documents are substantial and the lead time for reading them is usually one week.

The week before the meeting deadline works well. Also see my comments on question 31.

It is available in advance, but I have often dropped off the mailing lists and have missed the chance to review/comment on papers as a result.

It is essential that the one week minimum period is kept to - the papers require time to be read and digested.

I would be beneficial if the papers were provided more time in advance and accompanied with a summary/key messages page with key points of discussion to support the upcoming meeting.

This has not always been the case given the volume of material. I think has improved though in recent meetings.

Good that papers are standardised but could sometimes benefit from clarity around information, action, or decision. If it is a decision, then what are the options and what are the trade-offs and any uncertainty

21. Papers provided for members are generally clear, relevant, and provide a balanced view of the issues.
    a. Agree (5 NSCASE, 2 ONS)
    b. Neither agree nor disagree (3 NSCASE, 1 ONS)
    c. Disagree (1 NSCASE)

22. Provide further comments (optional)

It is always helpful to have clarity on what is being requested of NSCASE so we can read documents with this in mind.

Papers could be better structured to provide an executive summary (to aid reading), as well as highlighting the key options, decisions and actions required of the committee.

In general the ONS have done a good job in providing a clear, relevant and a balanced view of the issues. However, as noted in my comments on question 8, particularly for the SNA draft chapters, the papers should be more targeted towards the key issues for the Committee to discuss. Also, it is important ONS staff follow the structure agreed by the Committee in 2023 when presenting one-off issues for decision.

All to often the papers have very vague descriptions of what the ONS wants from the Committee. Ideally, they would be self-contained - sometimes the additional reading is necessary to fully understand the papers. Also, full articulation of impacts can be missing - without that articulation it can be hard to think through the consequences of options.

Sometimes this is true, but sometimes the ONS are clearly pushing us to give a certain recommendation. I think this is why hearing more from a range of folks, including those who could disagree with the ONS position, would be helpful.

All good

Secretariat

23. The secretariat is readily accessible to all members.
    a. Agree (8 NSCASE, 1 ONS)
    b. Neither agree nor disagree (1 NSCASE, 2 ONS)
    c. Disagree (0)

24. Provide further comments (optional)

I have not had any issues, but I do not know what other members think.

They are very responsive and open.

Don't access the secretariat but seem prompt and accessible.

25. The secretariat provides support to members both at and between meetings.
    a. Agree (8 NSCASE)
    b. Neither agree nor disagree (1 NSCASE, 3 ONS)
    c. Disagree (0)

26. Provide further comments (optional)

I can only answer about my own experience which has been good.

with the caveat I give above about giving it more capacity, so we have more capacity. I realise in the current climate that this may not be possible!

I don't call on the secretariat between meetings but would be good to know what support to NSCASE we might consider between meetings

27. The secretariat has provided the right level of support for meetings.
    a. Agree (9 NSCASE, 1 ONS)
    b. Neither agree nor disagree (1 ONS)

c. Disagree (1 ONS)

28. Provide further comments (optional)

More succinct introductions to agenda items would be helpful.

I welcome the circulation of the forward work plan, the distribution of the draft minutes by 2 weeks of the meeting, and the publication by 4 weeks.

In my opinion, the secretariat could be more direct and intervene more often to support the Chair to keep the discussion relevant to the remit of the committee.

All good.

Looking forward

29. What is your main area of concern in relation to NSCASE?

I am not concerned. It would be useful to think about matters that NSCASE should address after SNA is completed.

International issues (eg UN consultations on SNA2025) sometimes arrive at NSCASE too late for meaningful input and response.

See my comments on questions 4, 6, and 8.

I am concerned that they commission work based on their interests. This then requires resource to accommodate which takes resource away from ONS priorities, especially damaging at a time when resources are tight. Its not always clear that they are balanced and take a practical approach to reaching a recommendation. There are strong 'priors' from some members.

Whether the right range of topics is being brought to the Committee and whether we have the opportunity to influence before irrevocable decisions are made.

My main concern is that NSCASE strays away from its key remit too often. I am concerned because this takes away valuable time from the important items that need to be discussed. I don't think NSCASE is delivering as effectively as was intended.

Meetings typically cover a number of topics, and I think a continued challenge is to ensure the decisions and discussion needed is teed up in advance in the papers.

That we lack a mechanism for influencing international standards.

Parts of the ONS remain worryingly resistant to this type of support. Selling the benefits are particularly important.

That we become a rubber stamp for ONS proposals which reflect the views of particular leaders in the ONS. We need to ensure we have the capacity to push the ONS on key issues and that dissenting voices are heard. Also, I am still unclear to the extent we may get involved in controversial classification decisions, and how we ensure that our recommendations are being taken seriously and implemented as we intended.

Related to points above that we are too focused on future standards as compared with advice on existing standards though NSCASE has made some notable good decisions on the latter e.g. Eurostat and CPI.

30. What would you like NSCASE to focus on over the next year?

Areas where the UK needs different treatment due tothe unique composition of its activities and where the SNA does not give much attention.

There is a need to examine the collection and production of labour market data, to enhance public policy making

Not voting since I have agreed the forward programme. In practice we will be focused on SNA.

The strategic implementation plan, decisions on adoption of other international manuals/guides beyond SNA and BPM, government contingent liabilities, and identifying the key methodological issues for the UK across the suite of economic statistics that need review.

I'm not convinced this can or should be set out in advance. It should be there to respond to ONS priorities.

Relationship between wellbeing measures and core economic statistics (possibly means the beyond GDP agenda).

Not for me to say individually, rather the focus should be the items that are considered by ONS to be of highest priority.

Environmental issues.

Industrial classification, globalisation, SNA 2025 implementation plans, public sector quality review, labour market statistics

SNA / BPM

This is tricky - I suppose many of the issues I raise in my comments. So, we need to ensure that our recommendations on the pubic sector are being implemented appropriately (INCLUDING in the PSP work), we need to have the capacity to engage in emerging SNA issues, and we need to work out how we ensure we have a range of views. I think doing this process is an excellent idea, and is part of our role evolving to where we will end up as part of an enduring governance framework.

Considerations around the relative priority in considering standards. The New SNA could be demanding whereas it would be important to bear in mind existing standards.

31. Is there anything else that you would like the secretariat to do?

No

No

No

If a paper is ready earlier than one week before the meeting, consider circulating early. Spreading out the distribution of papers, if some are ready early, helps spread the pre-meeting review work.

Review and keep mailing lists up to date and more clearly impress upon the committee its remit.

Better scrutiny of papers before circulation - is it clear what the Committee should be discussing? I'd also prefer it if presenters were in the room rather than online although the cost may be too high.

See response to question 28. In addition, on a practical note, the secretariat can be helpful when a presenter is not present in the room by ensuring the presenter knows who asked a question (when joining remotely it can be near impossible to see the people in the room, so we often rely on recognising a voice)

Put placeholders for the whole year of meetings in advance, and then they can be moved if needed. At present, the meetings are put in relatively late which can make planning difficult. The secretariat could also have bilateral meetings with members outside of the meetings to ensure there is constant feedback in-between meetings.

No

No

Capacity and independence for them to support us in our role to (sometimes!) challenge the ONS, as I said above.

Nothing springs to mind.

32. Is there anything else you would like the NSCASE Chair to do?

Given some thought to the emerging areas that NSCASE should give attention to after SNA is completed.

No

Nothing comes to mind.

No

Continue ensuring discussions are focused. Maybe challenge ONS more on the forward agenda.

Seek to ensure that the focus of discussion is in line with the remit of the committee and remains "on topic". On a practical note, the Chair can be helpful by saying people's names when inviting them in (helps those people joining remotely who may not be able to see who is speaking).

No

No

I think it would be a good idea for the Committee to spend more time, if possible, with the National Statistician, to understand the ways in which we could most effectively give him advice.

No I think all good.

33. Thinking of the next year, NSCASE will be spending much of its time on SNA, are there key issues that you think are being squeezed out by this. If so, what are they? / Please specify any key issues you think are being squeezed out by this.

Inevitably at this point in time the SNA takes centre stage, but it would be good to consider how NSCASE will change the balance of its activities after SNA2025 is published in March 2025.

Yes

Arguably too much time is going on SNA. Perhaps I should try to streamline the process further.

It is understandable that the Committee has focused on the SNA given it is central to economic statistics and is in the process of being updated, although also see my comments to question 8. Going forward, the Committee will need to give more focus to the BOP, GFS and other economic manuals and guides, not least on relevant issues for the UK that have cross-domain relevance.

Given we have limited influence on SNA, I'd prefer to spend more time discussing other emerging issues and the ideas being discussed and adopted in the UK.

I'm not aware of any discussion of other emerging issues, so perhaps not.

Yes

See response to question 30

Yes

Time will tell!

there are some emerging issues outside SNA within existing standards that it would be good to have a stocktake of.

34. Provide further comments (optional)

It would be helpful to have a pass to enter Marsham St rather than have to go through airport security every time. I understand that EEWG members have a pass. We are all security vetted.

Might be good if the National Statistician came to a meeting.

It could be the case that NSCASE might consider standards for economic statistics outside of the SNA/intl standards scope if that would be useful to meet the specific measurement needs of the UK economy.

Annex B: ToR

Overview

1. The National Statistician's Committee for Advice on Standards for Economic Statistics (NSCASE) will play a central role in the governance of economic statistics, by supporting decisions about the guidance used in the compilation of these statistics.

Introduction

2. At the UK Statistics Authority Board meeting on 30 September 2021, the Authority Board agreed to establish NSCASE, which would be advisory to the National Statistician.

3. NSCASE was established in June 2022. Its function is to support the National Statistician in ensuring its processes for influencing, adopting, and monitoring progress against international statistical standards are of a high standard.

Roles and Responsibilities

4. On issues identified by the National Statistician, NSCASE is responsible for providing strategic, independent advice to the National Statistician on standards, guidelines, and classifications to produce economic statistics.

5. Specifically, NSCASE is responsible for providing advice to the National Statistician on:

- The suitability of current standards across the Office for National Statistics (ONS) suite of economic statistics.
- The methods by which the UK should influence the development of future international statistical standards and guidelines.
- Which standards the UK should adopt in future, to meet the specific measurement needs of the UK economy, while seeking to ensure appropriate international comparability.

6. NSCASE will provide advice by consensus where possible or by majority vote.

7. To facilitate timely advice, NSCASE can consider proposals via correspondence. Advice on these projects will be provided by consensus once the stated period for consideration has expired.

Reporting and Governance

8. NSCASE provides strategic advice to the National Statistician, who is also the Chief Executive of the UK Statistics Authority, leader of the Analysis Function and head of the Government Statistical Service.

9. The Chair of NSCASE provides regular, public advice to the National Statistician on Committee discussions. The National Statistician in turn responds publicly to NSCASE and decides whether specific matters need to be discussed by the UK Statistics Authority Board, in line with the provisions of the *Statistics and Registration Service Act 2007*.

10. The agenda will be prepared by the Secretariat in accordance with any determination of the National Statistician and the Chair.

11. The NSCASE Secretariat will provide reports following each of its meetings to the National Statistician. At least seven days prior to its meetings, NSCASE will receive reports on:

- proposals for new ONS statistical methodology or guidance, or amendments to existing standards
- relevant projects and programmes and other information as it requires; and
- reports from any sub-committees.

12. Where expedited review is sought and NSCASE approve the proposal by correspondence, a minute of the discussion via correspondence will be presented at NSCASE's next meeting and published on the UK Statistics Authority website.

13. NSCASE will operate transparently. Meeting minutes and a list of projects considered will be made publicly available on the UK Statistics Authority website.

14. NSCASE will provide an annual report on its activities in the National Statistician's annual report.

Chairing

15. The Chair of NSCASE is appointed via open competition for a three-year term. The position of the Chair is remunerated via a formal contract. Reappointment is permitted.

16. The Chair also represents NSCASE publicly, as necessary.

17. The Committee may appoint a Deputy Chair from among its members.

18. The Deputy Chair may fulfil the functions of the Chair if the latter is unavailable.

Membership

19. The Committee will comprise independent and trusted experts, with varied experience and skills. Members will be remunerated via a formal contract.

20. Members of the panel are appointed via open competition for fixed terms of three years, by the Chair and the National Statistician. As this is a new Committee, members' end dates will be staggered to ensure continuity of work and experience. Reappointments are permitted. The composition of the Panel will be reviewed periodically by the Chair, in partnership with the National Statistician.

21. The role of each member of NSCASE is to participate in consideration of the full range of issues within the Committee's remit.

22. The Chair may invite other relevant experts as appropriate to advise NSCASE and/or observers to attend.

Meetings

23. NSCASE will meet at least four times a year. The Chair of NSCASE may convene additional meetings as necessary.

24. NSCASE meetings will be considered quorate when four or more members are present, including the Chair or the Deputy Chair.

- Substitutes will not be permitted to attend meetings.
- For a proposal to be formally approved at a meeting a quorum the Chair (or the Deputy Chair) and three members must be present.
- For a proposal to be formally approved by correspondence a quorum the Chair (or the Deputy Chair) and three members would need to respond.

Secretariat

25. The Secretariat will be provided by representatives of the UK Statistics Authority's Central Policy Secretariat.

Transparency and confidentiality

26. NSCASE will operate transparently. Meeting agenda, papers and minutes will be published shortly after each meeting. Papers that are draft versions of scheduled publications, or which include pre-released data, will not be published ahead of their scheduled date, but the minutes will clearly state when the final document is expected to be published. Papers that are deemed to be market sensitive will be withheld from publication.

26. Panel members will have the opportunity to comment on minutes before their publication, on issues of accuracy. The NSCASE Chair will have the final approval of minutes. Minutes will be made publicly available within six weeks of the meeting date.

Inclusion and Diversity

28. NSCASE are committed to promoting diversity and inclusion in the running of the committee and their advice.

28. The Committee will seek the advice and involvement of ONS's diversity networks in their work. This will include inviting representatives to attend meetings or sections of meetings, should this be relevant, and sharing minutes or papers, as agreed by the committee.

30. The Secretariat will ensure that all meetings and materials are accessible.

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Review

31. The Committee will review the effectiveness of its meetings and its Terms of Reference annually. These reviews are published.