

Paris, France

SNAM/3.23/14

16 – 18 October 2023

The research agenda for the post 2025 SNA

Draft post-2025 SNA Research Agenda

A. Introduction

1. A consolidated list of SNA research issues was developed for the update of the System of National Accounts 2008 (2008 SNA). The Research Agenda was subsequently put forward to the United Nations Statistical Commission (UNSC), at its 51st session on 3 – 6 March 2020; see Annex II of the 2020 UNSC background paper to the ISWGNA report, under the following [link](#), starting at page 31.
2. An assessment of the progress with resolving issues on the agreed Research Agenda, including proposals for the way forward was put forward to the UNSC, at its 54th session on 28 February - 3 March 2023; see Section II of the 2023 UNSC background paper to the ISWGNA report, under the following [link](#), starting at page 14. This assessment not only served as an element for monitoring the progress with the update of the 2008 SNA but also allowed for identifying a potential list of issues that could be included in the post-2025 SNA Research Agenda.
3. Apart from the issues identified in the assessment of progress with the research issues for the 2008 SNA update, additional issues were identified for the post-2025 SNA Research Agenda during the development of the consolidated list of recommendations for the 2008 SNA update and by the Advisory Expert Group (AEG) on National Accounts in its deliberation on some of the issues.
4. The Annex to this note provides a summary of the assessment of resolving the research issues for the 2008 SNA update and the initial list of issues that were identified for the post-2025 SNA research agenda. Section B presents a short description of each of the initial list of issues for the post-2025 SNA research agenda. It is expected that the initial list of issues will be expanded based on feedback from the AEG on National Accounts and the economic statistics community in general.
5. The AEG is invited to comment on the initial list of issues for the post-2025 SNA Research Agenda, and to suggest other items that could be added.

B. Initial list of issues for the post-2025 SNA Research Agenda

1. Valuation of imports and exports

6. The System of National Accounts 2008 (2008 SNA) recommends recording of imports and exports of goods at free-on-board (FOB) values. This recommendation is consistent with the valuation principles of trade in goods in the Balance of Payments and International Investment Position Manual, sixth edition (BPM6). However, the FOB recording is not fully reconciled with the principle of output valuation at basic prices used for domestic transactions in the 2008 SNA.
7. While the AEG on National Accounts and the IMF Committee on Balance of Payments Statistics (the Committee) agreed that using invoice values is conceptually sound, they also agreed to maintain the status quo for the current BPM6 and 2008 SNA update, given that the limited results obtained during the second stage of the global consultation, did not yet support the feasibility of introducing the valuation of imports and exports at invoice values.

8. However, in BPM7 and 2025 SNA reference will be made to using invoice values as the new principle for valuing imports and exports in the future after further research on the feasibility of implementing this principle in practice.

2. Crypto-assets

9. The national accounts and balance of payments communities agreed to monitor developments relating to crypto assets without a corresponding liability, and to review the recommendation in case there are significant market, regulatory and/or accounting changes that may justify a revision either before or after the release of the updated international standards in 2025.

3. Statistical units

10. One of the challenges brought about by the rapidly changing nature of production and particular the ways in which enterprises produce goods and services has cast a spotlight on the SNA's preference for the use of the establishment as the preferred unit to compile statistics on the production of goods and services, and in particular, supply and use tables. There is a need for investigating this issue, and to take stock of the current SNA recommendations on statistical units (including institutional units), and to reflect on whether or not the recommendations on statistical units need to be adjusted in the future. A clear view of what needs to be measured in the economy needs to be established in order to identify ways to improve the definitions, if necessary, thereby taking into consideration current country practices; regional accounts as well as productivity measurement.

The treatment of establishments in the SNA

11. Currently, two reasons are mentioned to have the concept of the establishment, instead of the enterprise, within the SNA. The first of these is to provide a link to source information when this is collected on an establishment basis. In cases where basic information is collected on an enterprise basis, this reason disappears. The second reason is for use in input-output tables. Historically, the rationale was to have a unit that related as far as possible to only one activity in only one location so that the link to the physical processes of production was as clear as possible. With the change of emphasis from the physical view of input-output to an economic view, and from product-by-product matrices to industry-by-industry ones, it is less clear why the concept of establishment should be retained in the SNA.

Consolidation of enterprise groups

12. Many enterprises operating within an economy are linked with other enterprises by complete or partial common ownership and a shared management structure to form an enterprise group. Enterprises also often share common ownership and management with foreign affiliates. It is common for enterprises within an enterprise group to trade with each other, sometimes exclusively, when they perform an intermediate stage in a vertically integrated production process and share the outputs and costs of ancillary production. They may also share the outputs and costs of research and development activities. Given their close ties it may be sometimes desirable to consider an enterprise group as a single entity and to consolidate the accounts of its members. (This is already the practice in some other statistics such as Activities of multinational enterprises (AMNE), Foreign affiliates statistics (FATS) and Bank for International Settlements (BIS) consolidated presentations.) Members of an enterprise group are usually engaged in different activities and sometimes in more than one sector, and so consolidation could affect

results, such as industry value added, and sectoral balance sheets. Therefore the most likely way forward would probably be by way of supplementary tables. Separate consideration needs to be given to the case where some parts of the group are non-resident.

4. Broadening the fixed asset boundary to include other intellectual property assets

Innovation

13. The fixed asset boundary of the SNA has been expanded to include the output of research and development (R&D) that meets the general definition of an asset. It is evident that R&D captures part, but not all, of the innovation process. It may exclude many expenditures by the production and engineering departments of an enterprise. These same departments may also be responsible for identifying a potential new product and referring it to the R&D department to develop the science behind it. In addition, an enterprise may incur other expenditures before a new product goes to market. These include market research to determine the demand for a new product and marketing expenditures to promote it.

Human capital

14. Apart from any staff training required in bringing a new product to market, innovation expenditures are disembodied from the people undertaking the innovation. Therefore they exclude to a large extent the “investment in human capital”.

15. Human input is the major input in most production processes, and the value of that input is largely dependent on the knowledge that humans bring to the production process. It is well recognized that an educated population is vital to economic well-being in most countries. Even though there are major conceptual and practical problems with identifying the value of an educated labour force, there are repeated requests to address this issue within the SNA framework.

16. Following the publication of the Guide on Measuring Human Capital, and experience in some countries in producing human capital measures, the question arises whether the SNA asset boundary should be extended to include human capital as an asset, and how such an extension should be materialized.

5. Final consumption of corporations

17. In the SNA, no final consumption is recorded for corporations because corporations are not considered to be final users of goods and services, except for gross capital formation which, with the exception of valuables, are used in the production of goods and services. However, large corporations often undertake, for example, sponsorship of cultural and sporting events. To date, the SNA regards the payments involved as a form of advertising, but it could be argued that they are a form of final consumption and could thus be treated as final consumption expenditure of corporations and social transfers in kind to households. Another example relates to regulations such as environmental standards. By imposing such regulations, the government may achieve the same effect as if they levy taxes and spend the income on environmental protection, which would be treated as collective consumption. There may thus be instances where it would be more appropriate to record some expenditures by corporations as final consumption.

6. The treatment of social transfers in kind to and from the rest of the world

18. In the SNA, social transfers in kind only take place between government units, NPISHs and households. Paragraph 8.141 of the 2008 SNA explains that it is assumed that the amount of social transfers in kind payable to the rest of the world are probably negligible and, in any case, are offset by similar benefits receivable from the rest of the world. In some cases, these assumptions may be inappropriate and an explicit way of recording these could be elaborated. Such an elaboration would have to consider the consequences of having a difference between total final consumption expenditure and total actual consumption.

7. The inclusion of international organizations in the SNA

19. In the SNA, international organizations are treated as units that are resident in the rest of the world (2008 SNA paragraphs 4.173 to 4.175). It would in principle be possible to treat international organizations as a standard subset of the rest of the world and indeed to compile a full set of accounts for them.

Treatment of the output of international institutions

20. International institutions, such as IMF, the World Bank and the United Nations, are public corporations (and, by implication, institutional units) which are, as a rule, non-residents vis-à-vis countries, residing, as these institutions do, in the “international economic territory”.

21. Like other corporations, they use inputs to produce services, which may have a directly measured component (a fee) and an indirectly measured one. They are jointly owned by the governments of their member countries under cooperative arrangements, such as the Charter of the United Nations, or the IMF Articles of Agreement. The characterization and compilation of their output, and the use of that output by their member countries, require elaboration under the current SNA guidelines.

22. The AEG considered this issue at its 9th meeting and acknowledged that it requires further work, taking into consideration the cost-of-funds approach and the valuation at cost.

8. Clarification of the income concept in the SNA

23. As discussed in paragraph 8.24 of the 2008 SNA, the concept of income in the SNA differs from the one generally understood in economics. In particular, holding gains and losses are not considered part of income in the SNA. It is not only economic theory that treats holding gains and losses as income, but also business accounting standards. The SNA excludes holding gains and losses from the production of goods and services, and then extends this to an exclusion from most income flows. A thorough review of the concept of income in the SNA, including the implications for all property income flows would be beneficial.

Reinvested earnings and asymmetric treatment of retained earnings between direct and portfolio investment and potential extension to domestic relationships.

24. Guidance note F.2 on “Asymmetric treatment of retained earnings between direct and portfolio investment and potential extension to domestic relationships” contains a discussion on the extension of retained earnings to all investments in equity. Inclusion in the sequence of economic accounts did not receive much support, so it is recommended to only include such information in supplementary tables. This issue has a direct relationship with the discussion on

Guidance Note D.17 on “Identifying super dividends and establishing the borderline between dividends and withdrawal of equity”.

9. Accruing interest in the SNA

25. Through the 1990s and into the 2000s a vigorous discussion was conducted among the international statistical community about the appropriate way to record interest on securities such as bonds. Two general approaches were identified in the discussion: the debtor approach and the creditor approach.

26. The ISWGNA established an Electronic Discussion Group (EDG) in 1999 to obtain the views of a broad group of users and compilers on how macroeconomic statistics should record the accrual of interest on bonds and other tradable debt securities. The moderator of the EDG provided a report in October 2002 that concluded that while the participants to the EDG were strongly divided, the majority were in favour of the debtor approach. The ISWGNA subsequently considered the report and supported its conclusion. It then made a recommendation to the UNSC proposing that the SNA should recommend the debtor approach and the UNSC agreed.

27. The recommendation and descriptions of the two approaches can be found in paragraphs 17.252 to 17.254 of the 2008 SNA.

28. Discussion of certain update issues, including the treatment of concessional loans, non-performing loans, interest on index-linked debt securities and interest in arrears, showed that the debtor/creditor debate has implications beyond the recording of interest on securities. A full consideration of the definition of income in the SNA would have to reconsider this issue.

10. Calculation of FISIM

29. The AEG identified the following topics for further research in FISIM:

- a) Developing more clarity regarding FISIM (-related) references in the SNA, especially in relation to treatment of risk and definition of financial services;
- b) Further develop the conceptual arguments to either include or exclude credit default risk (CDR) in the calculation of FISIM and in the case of excluding CDR to develop methods and data that could support a possible exclusion of CDR in the future;
- c) Consider possible hybrid approaches to price and volume measurement;
- d) Further develop the ‘costs of funds’ approach to determine the reference rate, and further develop possible alternative approaches (vintage reference rate);
- e) Consider the financial instruments and units scope of FISIM; and
- f) The connection between the recommendations on implementing FISIM and the definition of income.

11. The measurement of neutral and real holding gains and losses

30. The SNA recommends that the nominal holding gains and losses recorded in the revaluation account should be decomposed into neutral and real holding gains and losses. In paragraph 12.85 of the 2008 SNA, the use of a comprehensive price index covering as wide a range of goods, services and assets as possible is recommended. Some national accountants have suggested that different price indices should be used for different classes of asset. The full impact of this suggestion requires investigation.

12. Treatment of the atmosphere as an asset

It is considered important to further investigate possible ways of considering the atmosphere as an asset and measuring the value of depleting the atmosphere by using it as a sink. This research may have implications for the recording of emissions and other sinks.

13. Treatment of Rent

31. In the 2025 SNA, the definition of rent is broadened to cover all payments/receipts related to the use of non-produced non-financial assets (regardless of their life span). This would also include payments related to obtaining observable phenomena.¹ However the current location of the recording of rent is still under discussion. Various options for recording the payments/receipts of rent in the sequence of economic accounts could be considered.

32. Rent is currently included in the allocation of primary income account and therefore impacts on the balance of earned incomes (national income) and all balancing items below. Three options can be distinguished, as follows:

33. Option 1: Keep the current treatment (rent in the allocation of primary income account). If one looks upon rent as a remuneration for the leasing of (specific types of) non-produced non-financial assets, in the same way as a return on financial assets, the current classification would still work.

34. Option 2: Include rent in the generation of income account. If one does not consider the leasing of non-produced non-financial assets as the production and use of a service, but still consider the payments for the use of the relevant assets as a cost of production, it could be opted to include rent in the generation of income account. This would not affect value added (or GDP), but would impact gross operating surplus and mixed income.

35. Option 3: Include rent in the production account. If the remuneration for the use of non-produced non-financial assets would be put on a par with the payments and receipts for the use of fixed assets, the logical consequence is that it would be recorded in the production account, as the provision of a service and as intermediate or final consumption. This would then impact GDP in instances where rent is recorded as final consumption. If this option would be recommended, it also raises the question whether one would prefer to keep payments/receipts for the leasing of non-produced non-financial assets (and/or for the leasing of natural resources) as a separate item, different from rentals.

¹ Observable phenomena are facts or situations, whose characteristics and attributes may be recorded. As such, they are often the objective of collecting data.

Annex: Summary of the assessment of resolving the research issues for the 2008 SNA update

	List of issues	Topics	Status	Guidance note	Comments
1	Typology of global production arrangements	Globalization	Resolved	C.4 on "Merchanting and factory-less producers; clarifying negative exports in merchanting; merchanting of services" (combined with Guidance Note G.6)	
2	Factory-less goods producers and recording of their transactions	Globalization	Resolved	C.4 on "Merchanting and factory-less producers; clarifying negative exports in merchanting; merchanting of services" (combined with Guidance Note G.6)	
3	Merchanting	Globalization	Resolved	C.4 on "Merchanting and factory-less producers; clarifying negative exports in merchanting; merchanting of services" (combined with Guidance Note G.6)	
4	Special Purpose Entities and identifying economic presence and residency	Globalization	Resolved	G.4 on "Treatment of special purpose entities and residency"	
5	Economic ownership of Intellectual Property Products (IPPs)	Globalization	Resolved	G.5 on "Economic ownership of intellectual property products: recording of intra MNE transactions" and the UNECE Guide on Measuring Global Production provides additional guidance	
6	CIF/FOB recording of imports and exports	Globalization	Partially resolved	G.1 on "Valuation of imports and exports"	Here, still some work needs to be done in respect of using invoice values
7	Price and volume measurement related to globalization	Globalization	Resolved	Has not been addressed directly in any of the GNs	Just need to provide broad conceptual guidance in the updated SNA.
8	New data sources needed to measure global production	Globalization	Resolved	G.7 on "Global value chains and trade in value-added"	

	List of issues	Topics	Status	Guidance note	Comments
9	Nationality concept / Extension of IIP on a nationality basis	Globalization	Dropped	Partially covered in GN G.4	BPTT decided to drop this issue
10	New methods to measure global production	Globalization	Dropped	Less relevant	May be (further) developed in the context of the UNECE Guide on Measuring Global Production and other work related to the measurement of global value chains and trade in value added.
11	Analyzing global value chains and trade in value added amplifies the need of high-quality statistics on global production in national and international accounts statistics	Globalization	Resolved	G.7 on "Global value chains and trade in value-added"	
12	Satellite framework for the digital economy	Digitalization	Resolved	DZ.5 on "Digital Supply and Use Tables"	
13	Delineation of dual use consumer durables and fixed assets	Digitalization	Dropped	Not covered by any of the GN.	It is more a matter of implementing the required distinction between consumer durables and fixed assets than a conceptual issue

	List of issues	Topics	Status	Guidance note	Comments
14	Free digital products and services	Digitalization	Resolved	DZ.3 on "Treatment of "free" digital products in the "core" national accounts" and DZ.4 on "Recording and valuing "free" products in an SNA satellite account"	
15	The role of data and the SNA asset boundary	Digitalization	Resolved	DZ.6 on "Recording of data in the national accounts".	See issue 31 for the accounting for rent
16	Price and volume measures related to digital products	Digitalization	Resolved	DZ.1 on "Price and volume measurement of goods and services affected by digitalization".	
17	Crypto-assets	Digitalization	Partially resolved	F.18 on "Treatment of crypto assets in macroeconomic statistics" (combined with DZ.6).	A possible re-assessment of the recording of crypto assets without a corresponding liability may be needed in view of future developments.
18	The broader framework for wellbeing and sustainability	Well-being and sustainability	Resolved	WS.1 on "A broader SNA framework for well-being and sustainability"	
19	Distribution of household income, consumption, saving and wealth	Well-being and sustainability	Resolved	WS.2 on "Distributions of household income, consumption saving and wealth"	
20	Education and human capital, labour and productivity	Well-being and sustainability	Resolved	WS.4 on "Labour, education and human capital".	
21	Health and social conditions	Well-being and sustainability	Resolved	WS.5 on "Health and social conditions".	

	List of issues	Topics	Status	Guidance note	Comments
22	Unpaid household activities	Well-being and sustainability	Resolved	WS.3 on "Unpaid household service work"	
23	Valuation and delineation of natural resources	Well-being and sustainability	Resolved	WS.10 on "Valuation methods".	
24	Accounting for depletion	Well-being and sustainability	Resolved	WS.6 on "Economic ownership and depletion of natural resources" and WS.8 on "Accounting for biological resources"	
25	Losses	Well-being and sustainability	Dropped		WSTT decided to drop this issue
26	Accounting for ecosystems	Well-being and sustainability	Dropped	Valuation aspect will be covered in AI.1 on "Valuation principles and methodologies", not part of the 2025 SNA.	
27	Relationship between the SNA and IASB	Other issues considered as a priority	Resolved	C.5.1 on "Statistical impact of the change in treatment of operating leases in business accounting" and C.5.2 on "Economic ownership in the context of financial and operating lease transactions pertaining, in particular, to aircrafts".	
28	Statistical units	Other issues considered as a priority	Post 2025 SNA Research Agenda		
29	Trusts	Other issues considered as a priority	Resolved	Issue note on Action point A.6 on Treatment of trusts and other funds as separate institutional units.	
30	Broadening the fixed asset boundary to include other intellectual property assets	Other issues considered as a priority	Post 2025 SNA Research Agenda	Partially covered in GN G.9 on "Payments for knowledge-based capital"	

	List of issues	Topics	Status	Guidance note	Comments
31	Leases to use or exploit natural resources	Other issues considered as a priority	Resolved	WS.6 on "Economic ownership and depletion of natural resources"; WS.7 on "Emissions permits: the atmosphere as an asset"; WS.8 on "Accounting for biological resources"; and DZ.6 on "Recording of data in the national accounts"	
32	Treatment of Private-Public Partnerships	Other issues considered as a priority	Resolved	D.8 on "Public-private partnerships".	
33	Harmonization of SNA and BOP	Other issues considered as a priority	Resolved		Detailed working arrangements have been established between the editorial team of the SNA-update and the one responsible for the BPM-update
34	Islamic finance	Other issues considered as a priority	Resolved	IF.1 on "Islamic finance in the System of National Accounts and External Sector Statistics"	
35	Informal economy	Other issues considered as a priority	Resolved	IE.1 on "Statistical framework and classification of informal economy"	
36	Final consumption of corporations		Post 2025 SNA Research Agenda		
37	Measuring the output of government services		Resolved	Issue note on Action point A.8 on consistency in the application of the sum of costs approach	
38	The treatment of social transfers in kind to the rest of the world		Post 2025 SNA		

	List of issues	Topics	Status	Guidance note	Comments
			Research Agenda		
39	Output of central banks: taxes and subsidies on interest rates applied by central banks		Resolved	Issue note on debt concessionality.	
40	The inclusion of international organizations in the SNA		Post 2025 SNA Research Agenda		
41	Clarification of the income concept in the SNA		Post 2025 SNA Research Agenda		See also issues 45 and 62. These three issues can be combined in the post 2025 Research Agenda
42	GDP at basic prices		Dropped		AEG decided to drop this issue during its meeting in October 2022
43	The role of taxes in the SNA		Dropped		AEG decided to drop this issue during its meeting in October 2022
44	Life insurance		Resolved	Issue note on Action point A.10 on measurement of insurance	
45	Reinvested earnings		Post 2025 SNA Research Agenda		See also issues 41 and 62.
46	Accruing interest in the SNA		Post 2025 SNA		

	List of issues	Topics	Status	Guidance note	Comments
			Research Agenda		
47	Calculation of FISIM-calculation of imports and exports of FISIM (inclusion / exclusion of credit default risk) - application of alternative approaches for determining the reference rate (costs of funds, vintage) - the scope of financial instruments and units		Post 2025 SNA Research Agenda		The issue on the post 2025 SNA Research Agenda is restricted to a limited number of items, as included in the minutes (including underlying document) of the 11th AEG-meeting.
48	High inflation		Resolved	This issue has been resolved by the decision to include additional guidance in the 2025 SNA.	
49	The measurement of neutral and real holding gains and losses		Post 2025 SNA Research Agenda		
50	Income arising from assets		Resolved	Note on resolving minor action points.	Please note that issue related to the contribution of financial assets to production has been dropped. The other issues have been addressed; see column F.

	List of issues	Topics	Status	Guidance note	Comments
51	Issues arising from a financial crisis		Resolved	F.1 on "More disaggregated definition of the financial sector and financial instruments" F.6 "Capturing Non-Bank Financial Intermediation in the System of National Accounts and the External Sector Statistics"	
52	Recognition of social security entitlements as liabilities - Accounting for pension entitlements		Resolved	SNA News and Notes No. 39/40 on claims between pension managers and pension funds Issue note on "Action point A.13 on Addressing ambiguities and inconsistencies regarding the recording of social security and employment-related schemes, including the current guidance for constructive liabilities"	
53	Wider use of fair value for loans		Resolved	F.9 on "Valuation of loans (fair value)"	
54	Provisions		Resolved	WS.9 on "Recording of provisions"	
55	Debt concessionality		Resolved	F.15 on "Debt concessionality"	
56	Equity valuation and its implications		Resolved	D.2 on "Valuation of unlisted equity in direct investment"	
57	Reverse transactions		Resolved	F.3 on "Reverse transactions"	
58	Tradable emission permits - Accounting for the atmosphere as an asset (WS.7) - Treatment of (services derived from) the atmosphere (C.2)		Post 2025 SNA Research Agenda	Partially covered in GN WS.7 on "Emissions permits: the atmosphere as an asset" and in the issues note C.2. Treatment of (services derived from) the atmosphere	AEG decided to keep the issue on the research agenda during its meeting in July 2023
59	Costs of ownership transfer of valuables and non-produced assets		Dropped		AEG decided to drop this issue during its meeting in October 2022
60	Distinction between current maintenance and capital repairs		Dropped		AEG decided to drop this issue during its

	List of issues	Topics	Status	Guidance note	Comments
					meeting in October 2022
61	Transfer of ownership of an asset during its life		Resolved	Note on resolving minor action points.	
62	Asymmetric treatment of retained earnings between direct and portfolio investment and potential extension to domestic relationships		Post 2025 SNA Research Agenda	Partially covered in GN F.2. Asymmetric treatment of retained earnings between direct and portfolio investment and potential extension to domestic relationships	See also issues 41 and 45.
63	F.11 Treatment of electricity forwards		Dropped		
64	F.17 Master Risk Participation Agreements		Dropped		
65	Treatment of Rent		Post 2025 SNA Research Agenda	Partially covered in GN AI.2 Treatment of Rent	AEG decided to keep the issue on the research agenda during its meeting in July 2023