

**IARNIW SEMINAR on
2008 System of National Accounts (SNA)
REVISION**

26 November 2024


2025 SNA – CHANGES from 2008 SNA

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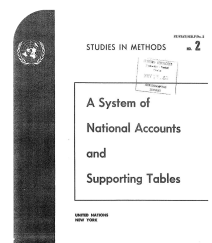
Changes from the 2008 SNA

Outline of the presentation

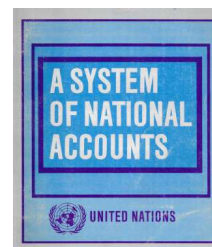
- ▶ Introduction
 - ▶ 2008 SNA revision process
 - ▶ 2025 SNA – Changes from 2008 SNA
 - ❖ Conceptual changes
 - ❖ Additional tables/data items
 - ❖ Clarification/guidance (focus on the more substantive ones)
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Updating Macroeconomic Accounting Standards

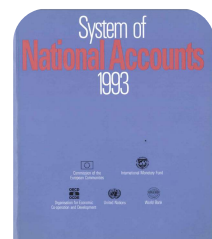
- Macroeconomic Accounting Standards (i.e. the System of National Accounts, Balance of Payments, Government Finance Statistics Manual, Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG)) are regularly updated to reflect changes in the economy.
- The “updates” can be categorized into three main groups:
 1. Conceptual Updates (i.e. change in what is measured)
 2. Methodological Updates (i.e. change in how activities are measured)
 3. Presentational Updates (i.e. change in how the statistics are presented)



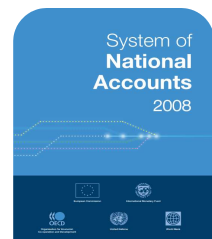
1953 SNA



1968 SNA



1993 SNA



2008 SNA

2008 SNA REVISION PROCESS

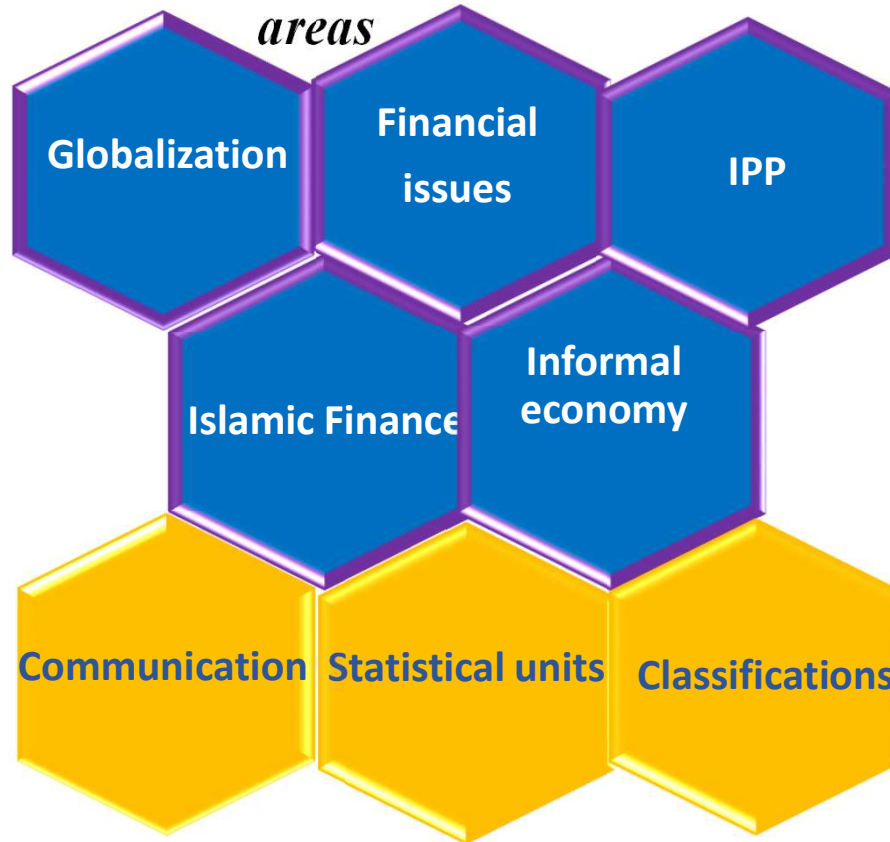
- In 2020 UNSC requested the ISWGNA to submit, for its consideration at its 52nd session in 2021, a roadmap for revision of the 2008 SNA for adoption by the Commission in 2025.
- IMF decided to launch a parallel process for BPM6 revision.
- The 2021 UNSC endorsed the work programme for the update of the 2008 SNA.
- The update of the SNA is overseen by ISWGNA, assisted by the Advisory Expert Group (AEG) on National Accounts.

Priority areas of Research

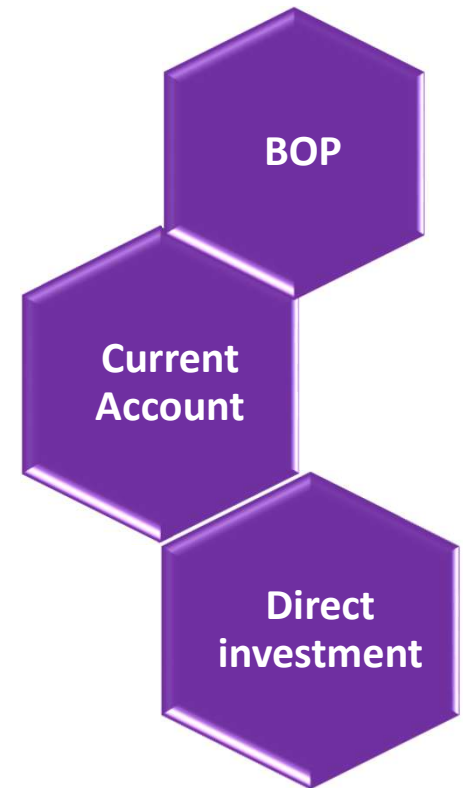
SNA priority areas



Joint priority areas



BPM priority areas



Development of Guidance Notes

- ▶ Workstream of each area of research were organized by **Task Teams**.
- ▶ **Guidance Notes** (about 65) were developed by 10 task teams during 2021 and 2022 for each of prioritized issues covering both conceptual and practical guidance.
- ▶ These clearly identified issues affecting **sequence of economic accounts (central framework), additional tables or data items** and developed recommendations for these issues.
- ▶ In other cases **clarifications** for existing guidance or **guidance in new areas** were recommended.

Endorsement of Guidance Notes

- ▶ Together with the conceptual implications; **feasibility** of implementing the proposed conceptual solutions were considered.
- ▶ Where needed, the development of Guidance Notes were informed by a process of experimentation and testing
 - This phase concluded in early 2023 and involved 9 guidance notes
- ▶ After the initial endorsement by the AEG (and BOPCOM where relevant). Guidance notes were subjected to a **global consultation process**.
- ▶ After consideration of global consultation feedback AEG(and BOPCOM) **endorsed the Guidance Notes**.

Consolidated list of Recommendations

- ▶ A consolidated list of changes and clarifications were developed for global consultation.
- ▶ The objective of the consultation was the coherency and consistency of the recommendations.
- ▶ Each individual recommendation had already gone through a process of global consultation.
- ▶ For the most part, there was overwhelming support for the recommendations.
- ▶ In the limited number of cases where divergent views were expressed the AEG tended to favour the majority while ensuring conceptual soundness and consistency with SNA principles.

Recommendations for Conceptual Changes

- ▶ Only a limited number of conceptual changes affecting macro-economic indicators, such as GDP/NDP, and net worth.
- ▶ Recognition of **data** as produced assets.
- ▶ Changes in the measurement of the **output of central bank**.
- ▶ Recording **depletion** of natural resources **as a cost of production**.
- ▶ **Renewable energy resources** and adjustments in the treatment of **biological resources**.
- ▶ **Split-asset approach** for natural resources (no impact on macro-economic indicators mentioned above).
- ▶ Improving consistency in the application of the **sum-of-costs method**.

Other minor changes to the 2008 SNA (no impact on macro-economic indicators)

Data included in Production and Asset boundaries

2008 SNA:

- ▶ Recognized databases as produced assets, but not the information content.

2025 SNA:

- ▶ Includes information content of electronic data collected and used in production in the asset boundary, as a new asset category – data – under (produced) fixed assets.
- ▶ Data defined as:
 - “information content that is produced by accessing and observing phenomena; and recording, organizing and storing information elements from these phenomena in a digital format, which provide an economic benefit when used in productive activities”.
 - Data in non-digital form, is not in the SNA Production boundary.

Data included in Production and Asset boundaries

- ▶ Data is a result of production – using labour and capital.
- ▶ Data that is produced and used in production for more than one year should be capitalized.
- ▶ Like other assets in the National Accounts, data is subject to economic ownership, valuation (and re-valuation) and depreciation (obsolescence).
- ▶ **All own account production of data is considered capital formation.**
 - Although it is likely that some own account data may be fully consumed within one year, due to practical limitations on delineating this data from data used repeatedly for more than year, it is recommended to capitalise all own account production of data.

Data included in Production and Asset boundaries

- ▶ **Valuation using the sum-of-costs method:**
 - costs of planning, preparing and developing a data production strategy,
 - costs associated with accessing, recording and storing information, including already produced data,
 - costs associated with designing, organizing, testing and analyzing the data in order to draw information and conclusions from it,
 - costs associated with processing, cleaning, and organising the data to allow for use in productive activities,
 - consumption of the fixed capital used, including return to capital.
- ▶ **Change may have significant impact on GDP and net worth**

Measurement of output of Central Bank–Changed (1)

2008 SNA:

- ▶ Three broad groups of Central Bank services;
 1. Financial intermediation – **Market production**
 2. Monetary policy services – are collective in nature, serving the community as a whole, and thus represent **non–market output**.
 3. Supervisory services (non–market or market, depending on fees paid for these services.)

- ▶ The collective consumption of monetary policy services is allocated to Govt with a concomitant current transfer.

Measurement of output of central bank–Changed (2)

2025 SNA:

- ▶ **Financial intermediation excluded** on conceptual grounds;
- ▶ **Further extension of services**, to include promoting financial stability and monitoring the payments system.
- ▶ All output considered as non–market output provided to the society as a whole (i.e., collective services).
- ▶ Total output is to be valued at the **sum–of–costs**,

Measurement of output of central bank–Changed (3)

2025 SNA:

- ▶ Compulsory payments by financial corporations to the Central Bank to be treated as current transfers, and not as purchases of services.
- ▶ Although the Central Bank delivers their services to the population collectively, the costs of doing so are shown as final consumption expenditure by the Central Bank.
- ▶ Change in GDP = Change in recording of transfer

Depletion of natural resources as a cost of production

2008 SNA:

- Depletion of natural resources treated as other changes in the volume of assets.

2025 SNA:

- Depletion to be recorded as a cost of production, similar to the recording of consumption of fixed capital (depreciation).
- In relation to net measures for domestic product, a distinction is made between “domestic product, net of depreciation” and “net domestic product”, the later being adjusted for both depreciation and depletion of natural resources.
- Change will have an impact on NDP, especially in natural resource-rich countries.

EXPLICIT RECOGNITION OF RENEWABLE ENERGY RESOURCES

2025 SNA :

- The asset boundary for mineral and energy resources has been **explicitly** extended with the recognition of renewable energy resources (solar, wind, etc.).
- Renewable energy resources comprise the cumulative quantities of kinetic, heat or radiative energy recoverable from moving water (hydro and ocean energy), moving air (wind energy), hot underground and surface rock and water (geothermal resources) and incident solar radiation (solar energy).
- Only those renewable energy resources that are viable for use in economic production “harvestable” under prevailing technological and economic conditions qualify as assets.

EXPLICIT RECOGNITION OF RENEWABLE ENERGY RESOURCES

2025 SNA :

- Own-account production of goods extended to include electricity through the use of solar and wind power and the production of heat for heating water or a dwelling through geothermal heat or heat pumps;
- Feed in tariff that the household would receive for electricity fed to the grid is considered the most appropriate valuation.
- Potential double counting to be avoided– Installations for the generation and use of renewable energy (electricity or heat) may lead to higher market rentals for rented dwellings rental premium to be adjusted).
- **Change will increase GDP**

Adjustments in Treatment of Biological Resources (1)

2008 SNA :

- Distinction is made between cultivated and non-cultivated biological resources yielding once-only products (fish, timber, based on management and control.

Under Control and Mgt of a Unit	Not controlled or managed by a Unit
Cultivated (Produced)	Non-cultivated (non-produced)
Natural growth is considered as production	Only goods produced by catching fish, felling trees, picking berries etc are recorded as output
Leasing assets recorded as output/intermediate consumption	Leasing assets recorded as receipt/payment of Rent
Time of recording of output maturing over more than one accounting period	
Natural growth recorded as output (accrual accounting)	Output recorded at time of actual use (when felling trees, catching fish etc)

Adjustments in Treatment of Biological Resources (2)

2025 SNA :

- Instead of cultivated and non-cultivated resources in case biological resources yielding once-only products, distinction be made between **migrating resources** and **non-migrating resources**.

Migrating Resources	Non-migrating Resources
Straddling fish in open water	Take the continuum from intensely managed to totally undisturbed as a starting point for biological resources.
Non-produced	Output to be measured as the percentage of the natural growth that is expected to be exploited in the foreseeable future.
	Amounts to accrual accounting of production, which in the case non-cultivated currently is recorded at the time of removing the biological resources from the nature.

Distinguishing between cultivated and non-cultivated resources – strict application of significance of mgt practices. **For timber resources only plantation, for aquatic resources –fish farming will be produced assets.**

Split-asset approach for natural Resources (1)

2008 SNA :

- Natural resources to be recorded in the accounts of the legal owner (typically government) and the payment by the extractor to the owner shown as rent.
- This treatment results in implicit misalignment as:
 - The allocation of the natural resource does not match the recording of the income of these assets.
 - Not all the income related to the natural resources is appropriated by the legal owner.

Split-asset approach for natural Resources (2)

2025 SNA :

- Natural resources to be recorded in the accounts of the legal owner (reflected as receipts of rents) and extractor (reflecting the residual value of the resource rent).
- Accounting for depletion in line with SEEA Central Framework 2012 (i.e., allocation of depletion in line with appropriation of the resource rents between the extractor (economic owner) and the legal owner).
- Changes in ownership to be recorded as other changes in the volume of assets.
- No impact on GDP

Improving Consistency of the Sum-of-costs Method (1)

- In the absence of market prices, application of **sum-of-costs method**, as an approximation of such market prices.
- For market producers (output for own final use):
 - Intermediate consumption
 - Compensation of employees
 - Consumption of fixed capital
 - Net return to fixed capital
 - Other taxes (less subsidies) on production

2008 SNA (Issues)

- For **non-market producers**, relevant output is valued **excluding return to fixed capital**,
- Return to capital is excluded for non-financial assets other than fixed assets,
- Inclusion or exclusion of **payments for rent** on, for example, land and natural resources, and
- Exclusion of **depletion**, in addition to consumption of fixed capital

Improving Consistency of the Sum-of-costs Method (2)

2025 SNA

- In relation to the application of the **sum-of-costs** approach, it is recommended to:
 1. include a return to capital in all cases, including **non-market output**;
 2. Inclusion of **return to non-financial assets other than fixed assets**, thus including work-in-progress, other inventories and non-produced non-financial assets
 - Return to city parks and historical monuments to be excluded on pragmatic grounds
- **Inclusion of rent** as a cost element.
- **Inclusion of depletion** of natural resources.
- **Change may have a significant impact on GDP.**

Other Minor Conceptual Changes

Extension of the definition of rent

2008 SNA

- Rent relates to the income receivable by the owner of a natural resource for putting it at the disposal of another institutional unit for use in production.
- Rent was thus restricted to natural resources, as these resources (supposedly) had an infinite life.

2025 SNA

- Definition of rent has been broadened to cover all payments/receipts related to the use of non-produced non-financial assets (regardless of their life span).
- Recording of **work-in-progress** for fixed assets partially transferred and for fixed assets produced for own final use.

Other Minor Conceptual Changes – Contd.

- Treatment of **negative receipts of interest as negative investment income**, and not as positive expenditures of interest.
- For **concessional loans** provided by employers to employees, interest rate to be adjusted to market interest rates, with a concomitant increase of remuneration of employees.
- **All equity in international organizations** to be considered as “other equity”.
- **Securities provided as collateral**, which are not readily available for meeting balance of payments financing needs, to be excluded from the cash borrower’s reserve assets; for gold swaps, this reclassification leads to a demonetization of the gold bullion.

Other Minor Conceptual Changes – Contd.

- **Treatment and recording of dividends and retained earnings:** In case of FDI the retained earnings of a foreign-controlled enterprise are treated as being distributed, and subsequently reinvested.
- Similar treatment is recommended for all retained earnings in the case of portfolio investment and other direct investment.
- In recording of distributed income of FDI enterprises, it is recommended to only record exceptional payments of distributable income to the parent company as withdrawal of equity, if they relate to the sales of assets.
- Distributions of income from accumulated reserves would thus be recorded as dividends.

Recommendations for **additional** tables / data items

General Observations

- A distinction can be made between the following tables and data items:
 - **Sequence of economic accounts**: standard set of accounts and tables, the compilation of which is recommended
 - **Supplementary tables/items**
 - **Extended/thematic accounts/tables**
- The **SNA does not have the power of law**, but one of the main factors for the success of the SNA is the worldwide compilation of statistics according to its conceptual guidance.
- The objective is that **as many countries as possible compile the sequence of economic accounts**.
- Encouraged tables and accounts more dependent on national and regional priorities.

Accounting for Well-being and Sustainability

- Lots of criticism on GDP in providing adequate guidance for policy:
 - Does not appropriately measure **well-being** (including its distribution), or progress of society more generally.
 - Does not address **environmental issues** and ecological boundaries.
 - **GDP \neq (sustainable) well-being**
 - **GDP \approx measure of economic activity.**
- A promising **all-encompassing summary indicator for well-being and sustainability**, which can meet minimum levels of scrutiny, **has not yet been developed**

Accounting for Well-being

- To arrive at an improved analysis of the **distribution of income, consumption, saving and wealth across households**:
 - As a **minimum** provide breakdowns based on (current) **disposable income and wealth**, showing income and wealth **decile groups**, a **median** and, if possible, results for the **top 5 per cent** and the **top 1 per cent**.
 - Alternative breakdowns by **main source of income**, **household type**, housing status and by **age of the reference person** are also recommended, as supplementary items
- **Extended/thematic accounts and tables**:
 - **Unpaid household service work**
 - **Education and training** (breakdown by **purpose**—preprimary, primary, secondary, higher, vocational etc.; **by provider**; **by financing**,)
 - **Health and care expenditure**

Accounting for Sustainability

- To arrive at an improved accounting of (environmental) sustainability, [SEEA Central Framework 2012](#) and [SEEA Ecosystem Accounting](#) are important frameworks which can be viewed upon as systematic frameworks complementary to and consistent with the SNA.
- Within the SNA sequence of economic accounts, in addition to recording depletion as a cost of production:
 - Natural capital as a separate category, including both produced and non-produced non-financial assets,
 - More detailed breakdowns of non-financial assets and financial assets,
 - Focus on improving the estimation of natural resource

Accounting for Globalization

- To arrive at a better understanding of the impact of globalization on the generation and distribution of income, and also to arrive at an improved international comparison of fiscal balances, standard breakdowns of corporations into:
 - Foreign-controlled corporations
 - Public corporations
 - National private corporations
 - Of which: Part of domestic MNEs

- In addition, various supplementary items and tables are encouraged
 - Extended supply and use tables (eSUTs)
 - Data on Special Purpose Entities (SPEs) for those countries where these entities are important

Accounting for Digitalization

- To improve the visibility of the digital economy:
 - More detailed breakdowns of certain asset categories within intellectual property products:
 - Artificial intelligence is classified as part of software by introducing two classes of assets under computer software and databases: (i) computer software, including artificial intelligence systems; and (ii) data and databases
 - In addition, digital supply and use tables are encouraged as extended/thematic tables, also including extended accounting for “free” services (Facebook, Instagram, TikTok, etc.)
 - Further breakdowns of subsectors of financial corporations of Fintech-related activities, as supplementary items in countries where these activities are significant.

Accounting for Financial Risks and Vulnerability

- Since the Great Financial Crisis, it is considered important to arrive at an improved accounting for financial risks and vulnerabilities.
 - **Non-bank financial intermediation** (shadow banking): supplementary tables with more detailed breakdowns of financial corporations, as well as additional details for certain financial instruments.
 - Breakdowns of financial derivatives.
 - From-whom-to-whom (supplementary) tables

Other Supplementary Items and Tables

- **Concessional loans:** supplementary data on concessional loans provided by government and international organizations.
- **Reinvested earnings:**
 - Breakdown of FDI-related dividends into payments as defined for non-FDI corporations and other payments
 - Supplementary data on recording reinvested earnings for all equity in corporations, direct investment as well as portfolio investment
- **Valuation of debt securities** at both market value and nominal value for liability positions.
- Supplementary table on **provisions**, broken down into three categories:
 - financial assets related,
 - non-financial assets related, and
 - provisions unrelated to assets

Recommendations for clarification/guidance (substantive ones)

General

- **Greater prominence on net income measures:** NDP (volume change) is identified as the conceptually preferred measure of growth, sitting alongside GDP.
- **Terminology:** several terms have been changed to ensure consistency across the SNA and BPM (and other macro-economic statistics), some example
 - “Resources” and “Use” sides of the Accounts renamed as “**Revenues**” and “**Expenditures**”,
 - “Compensation of employees” renamed as “**Remuneration of Employees**”,
 - “Consumption of fixed capital” renamed as “**Depreciation**”,
 - “Primary distribution of income” renamed as “**Distribution of earned income**”,
 - “Secondary distribution of income” renamed as “**Distribution of transfer income other than social transfers in kind**”,
 - “Redistribution of income” renamed as “**Distribution of social transfers in kind**”

Well-being and Sustainability

- **Emission permits:** more explicit guidance is provided on their treatment as financial assets, with taxes on production recorded at surrender, valued at issuance price.
- **Distinction between taxes and services:** as a default, payments for licenses to be treated as taxes; new guidance is introduced on the re-routing of transactions through government.
- **Labour:** more precise guidance on the relationship between the SNA and ICLS recommendations is provided (Chapter 16).

Globalisation

- **Determining economic ownership of intellectual property products:** a decision tree to provide guidance has been introduced.
- **SPEs:** a more specific definition has been introduced, namely:
 - An SPE, resident in an economy, is a formally registered and/or incorporated legal entity recognised as an institutional unit, with no or little employment up to maximum of five employees, no or little physical presence, and no or little physical production in the host economy.
 - SPE are directly or indirectly controlled by non-residents,
 - SPEs transact almost entirely with non-residents and a large part of their financial balance sheet typically consists of cross-border claims and liabilities.
 - It is recommended that SPEs incorporated in the same economic territory as their parents are not termed as SPEs, but instead be known by their specific type of activity (e.g., domestic securitization vehicle). Such units are usually not consolidated on account of them being autonomous.

Globalisation

- **Inverse merchandising:** additional guidance has been provided:
 - A merchandising enterprise resident in country A is buying goods in country B and is selling the goods without physical transformation to another economic agent in country B.
 - For this type of merchandising, also the country where the inverse merchandising activity is taking place (country B) has to adjust its data on imports and exports in order to appropriately reflect the change of economic ownership of the goods.
- **Travel packages and health-related travel:** the unbundling of various services has been clarified.

Digitalization

- Further clarification provided on the **current treatment of software licenses**, including its distinction between intermediate consumption and gross fixed capital formation, long-term access to servers and other resources, own-account production of IT-equipment, and cross-border flows, namely:
 - Treat payments for software subscriptions as purchases of a service, unless long-term licenses for software hosted in cloud computing represent software assets of the user.
 - Clarification provided on the recording of GFCF of data centres, including IT-equipment, for own final use, and
 - Measurement of the international transactions in cloud computing services across networks, where plausible estimates may be calculated on the basis of estimates of each country's consumption and production of cloud computing services.
 - Output of the digital intermediary platforms to be recorded on net basis , i.e., the fees charged for their intermediary role.

Digitalization

- **Crypto assets without a corresponding liability designed to act as a general medium of exchange:** is treated as non-produced non-financial assets, in a separate category.
- **Crypto assets with a corresponding liability:** is treated as financial assets, with guidance provided on the appropriate financial instrument classification, depending on the nature of the crypto assets.
- **Non-fungible tokens (NFT):** guidance has been provided, namely, NFT that:
 - only grant personal use and display rights are to be recorded as consumption.
 - grant limited commercial rights should be recorded as non-produced non-financial assets (contracts, leases and licenses), if the owner can derive economic benefits from these rights (e.g., some form of royalties);
 - grant full ownership rights should not be separately recorded, assuming that the associated assets or products have already been recorded.

Financial Issues

- **Trusts and similar arrangements under third party arrangement:** additional guidance provided for treating these as separate institutional units, or not:
 - Whether or not the fund manager is exposed to the risks and rewards of the accumulated assets; and
 - If this is not the case, whether there is one beneficiary or multiple beneficiaries.
 - If the fund manager is exposed, the fund would need to be consolidated with the fund manager.
 - If the fund manager is not exposed, and there is only one beneficiary, the fund would need to be consolidated with the beneficiary.

Financial Issues – Islamic Finance

- **Islamic finance:** a new chapter has been introduced to provide guidance in this area
- Islamic finance does not operate in the same way as conventional finance as it follows the Shari'ah principles and rules.
- Shari'ah does not permit:
 - Receipt and payment of "riba" (normally translated as interest),
 - "gharar" (excessive uncertainty),
 - "maysir" (gambling), and
 - short sales or financing activities that it considers harmful to society.
- Chapter provides a concise description of the main Islamic financial instruments, the main economic agents active in Islamic finance, and the application of the concept of economic ownership in Islamic finance.
- Term **“interest and similar returns”** used to encompass interest-like returns on Islamic deposits, loans and debt securities.

Delineating individual insurance and social insurance

- **Treatment of hybrid insurance:** guidance clarified
 - Insurance products with a saving component are typically classified as **life insurance**, and
 - Products where claims are paid only if the insured event occurs are classified as **non-life insurance**,
 - **Hybrid products** to be allocated to one category or the other depending on which features are predominant.
- Guidance provided for treatment of **Provident Fund**
 - Recommended to treat these funds as part of social insurance, with the relevant funds classified in the financial corporations' sector.

Transfer of Ownership

- **Determining economic ownership of intellectual property products:** a decision tree to provide guidance has been introduced.
- Recording of **transfer of ownership of work-in-progress**, not restricted to buildings and other structures, but recommended for other non-financial assets where production takes several years.
 - Record a transfer of the relevant only in the case of an effective transfer of ownership;
 - Record partially completed structures as work-in-progress, also after a partial hand-over; and
 - Record differences between stage payments and the effective transfer of ownership as other accounts payable/receivable.

Other

- **Public –private partnerships:** no conceptual changes but more detailed guidance provided.
- **Price and volume measurement:** more guidance provided for specific products, particularly digital products, FISIM, health and education etc.
- **Consumption of fixed capital and capital services:** further clarifications and more guidance introduced. Recommend using geometric rate of depreciation as default option to calculate capital stock and CFC, guidance on how to calculate capital service for inventories.
- **Informal economy:** chapter 30 has been redrafted to improve alignment with latest ICLS resolutions.
- **Taxonomy for releases and products:** introduced into a new chapter on Communicating and disseminating economic statistics.

Thank you

<https://unstats.un.org/unsd/nationalaccount/towards2025.asp>