# Annex 15: Research Agenda

A common research agenda has been developed for the *2025 SNA* and *BPM7*. Most of the issues are relevant to both standards, while some issues are only relevant to the *2025 SNA* or *BPM7*.

## A. Introduction

A5.1 The external accounts are designed to give a realistic and compact view of the economy that is suitable for policy and analytical use. As the economy changes and policy and analytical needs evolve, the *Manual* must be reviewed to see if it is still relevant for these purposes. Examples of changes in economic conditions that trigger a reassessment of the adequacy of the external accounting framework are the rapid advances in digital technologies and global production arrangements, changes in financial markets, and the continuous need for new data to examine external sector sustainability.

A5.2 It is unusual for economic perspectives to change quickly and dramatically as was the case with the global financial crisis that occurred in 2007-08. However, there are always some emerging features that may cause the external accounts community to reassess their current methodology. One example is the developments related to crypto assets, particularly the classification of crypto assets and related transactions. Developments relating to crypto assets without a corresponding liability designed to act as a medium of exchange will be monitored, and the recommendation to classify them as nonproduced nonfinancial assets will be reviewed if there are significant market, regulatory, and/or accounting changes that may justify updated guidance.

A5.3 It is not possible to expect to capture all the issues that will arise even in the near future. The objective of this annex is to list those that have emerged in the course of the present update but where more extensive consideration is needed than was possible in the course of the update. Some may result not in changes to the *Manual* but simply greater clarification of some points. This list will be kept on the IMF's website and updated as new items emerge and those recommendations on existing items are agreed.

A5.4 Priorities for resolving research issues will be guided by three key questions:

a. How urgent and important is the topic to ensure that external accounts data continue to be relevant to the users?

b. How widespread are the consequences of change and how complicated will implementation be?

c. Is the topic completely new or has much of the preparation for considering the item been completed?

A5.5 The process of selecting items for investigation is one that will involve widespread consultation and involvement of both compilers and users in the review process.

A5.6 All updates of the *Manual*, including the 2025 update, have shown that it is very difficult to update only parts of the system because of the integrated nature of the accounting rules. The list of issues that follows is grouped broadly by subject area, but it should be recognized at the outset that each is likely to have consequences beyond the subject heading.

A5.7 The topics identified to date have been grouped into five broad headings. These are:

a. Basic accounting rules;

b. The concept of income;

c. Issues concerning financial instruments;

d. Issues involving nonfinancial assets; and

e. Emerging issues.

A5.8 Each of these is the subject of one of the following sections.

## B. Basic Accounting Rules

### 1. Valuation of Imports and Exports of Goods

A5.9 Imports and exports of goods remain to be recorded in the *SNA* and *BPM* on a free on board (FOB) basis where goods are valued at the exporter's border—that is, including the cost of insurance and freight incurred up to the point of the goods leaving the economy of the exporter. Since this recording is not fully reconciled with the principle of valuing output at basic prices used for domestic transactions in the *SNA*, the *2025 SNA* and *BPM7* recognize that, in principle, imports and exports should in future be valued using invoice values. Further research on the feasibility of implementing this principle is required.

### 2. Accounting for the Economic Activities of Nonresident Units Making Use of Quota Established for Fishing in a Country's Exclusive Economic Zone (EEZ)

A5.10 Concerns about the recording of fishing rights of a nonresident operator in a country's Exclusive Economic Zone (EEZ) were raised in relation to the accounting for depletion in such cases. Even though the issue is not new in the *SNA*, the accounting for depletion as a cost of production highlights additional complications, amongst others for the recording in the BOP, where transactions in the capital account are restricted to capital transfers and acquisitions, less disposals, of nonproduced nonfinancial assets. While recording all these various transactions can be envisaged conceptually following standard *SNA* and *BPM* principles, there are likely many practical compilation issues to consider, if only because it may require the international exchange of data on the economic activities of the nonresident operators (unless the national statistical office would be able to collect data from the nonresident operator directly).

A5.11 Alternative conceptual framings to describe the economic ownership of the fishery by a nonresident could be envisaged and a complete working through of the wider implications for any approach on balancing items, macroeconomic aggregates and related matters needs further investigation in the *SNA*, *BPM*, and *SEEA* context.

### 3. Pension Funds as Policyholders of Life Insurance Policies

A5.12 In the current guidance, the policyholder of a life insurance policy is always an individual. However, it is argued that pension funds can also buy life insurance policies (other than group life schemes) for its members; they buy annuities from life insurance companies on behalf of the fund. In such cases, the pension funds could have claims on the technical reserves of life insurers, including related investment income.

A5.13 It is not clear whether the pension fund is simply behaving on behalf of its policyholders, or if the pension fund's role is more than intermediation. This could also apply to other institutional investors. The resolution of this issue and its impact on the current guidance needs further investigation.

### 4. Secondary Markets for Insurance Policies and Life Settlements

A5.14 Some insurance policyholders sell their existing insurance policies to third parties. The sale of an existing insurance policy to a third party for a one-time cash payment is called a life settlement. The payment is more than the surrender value but less than the benefit at the time of death. Typically, existing life insurance policies, such as whole life insurance, variable life insurance and universal life insurance, are sold, but in some instances, existing term insurance policies can be sold as well. Life settlements essentially create a secondary market for life insurance policies. Also, by selling it, the insured person transfers every aspect of the life insurance policy to the new owner. This means the investor who takes over the policy inherits and becomes responsible for everything related to the policy, including the receipts of premiums along with the payments of benefits.

A5.15 More research is needed on how to record the transactions and positions between the sellers of existing insurance policies and the third-party buyers of these policies. Additionally, guidance on how to sectorize these third-party buyers and how to calculate their output should be provided. This issue should be coordinated with the research on Issue 3 (pension funds as policy holders of life insurance policies).

## 5. The Treatment of Cross-Border Social Transfers in Kind

A5.16 In the *SNA* and *BPM*, social transfers in kind only take place between government units, NPISHs, and households. Paragraph [11.86] of *BPM7* says: "In addition, goods and services provided free to nonresidents by government and NPISHs of the economy they are visiting, known as social transfers in kind (e.g., free health services received by a foreign tourist from a hospital within general government) should be imputed and recorded under travel." Paragraph 9.153 of the 2025 SNA explains that it is assumed that the amounts of social transfers in kind payable to the rest of the world are probably negligible and, in any case, can be assumed to be 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. It could also result in two concepts of imports and exports (i.e., excluding and including social transfers in kind).

## 6. Calculation of Implicit Financial Services on Loans and Deposits

A5.17 The following topics on the recording of implicit financial services on loans and deposits require further investigation:

a. Further develop the conceptual arguments to either include or exclude credit default risk (CDR) in the calculation of implicit financial services on loans and deposits and in the case of excluding CDR to develop methods and data that could support a possible exclusion of CDR in the future;

b. Consider possible hybrid approaches to price and volume measurement;

c. Further develop the 'costs of funds' approach to determine the reference rate, and further develop possible alternative approaches (vintage reference rate); and

d. Consider the financial instruments and units scope of the implicit financial services on loans and deposits.

A5.18 The recording of implicit financial services on loans and deposits, which are implicitly consumed by investment funds, but treated as being consumed by the holders of investment fund shares/units, may also need to be given further consideration.

## 7. Statistical Units

A5.19 The rapidly changing nature of production and in particular the ways in which enterprises produce goods and services cast a spotlight on the *SNA*'s preference to use the establishment as the preferred unit for compiling statistics on the production of goods and services, and in particular supply and use tables. There is a need for investigating this issue, to take stock of the current *SNA*/*BPM* recommendations on statistical units (including institutional units); and to reflect on whether 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.

## 8. The Inclusion of International Organizations

A5.20 In the *SNA* and *BPM*, international organizations are treated as units that are resident in an economic territory of their own, and not of the economy in which they are physically located (*2025 SNA* paragraphs 5.239-5.243 and *BPM7* paragraphs [4.239-4.243]). It would in principle be possible to treat international organizations as a standard subset of the rest of the world sector and indeed to compile a full set of accounts for them.

A5.21 International institutions, such as the IMF, the World Bank, and the United Nations, are public corporations (and, by implication, institutional units) which are, as a rule, nonresidents vis-à-vis countries, residing, as these institutions do, in the "international economic territory." 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, and the recording of the remuneration of the employees of these organizations require elaboration under the current *SNA*/*BPM* guidelines. In further investigation, the cost-of-funds approach and valuation using the sum of costs method should be considered.

### 9. Distorted Transfer Pricing

A5.22 The treatment of distorted transfer pricing—which can occur between affiliated enterprises (including fellow enterprises) when observed exchange values do not represent at arm's length market prices—needs further investigation, including on how to account for sharing of intellectual property products (IPPs) and the practical aspects of making adjustments.

## C. The Concept of Income

### 1. Clarification of the Income Concept

A5.27 As discussed in paragraph 9.25 of the *2025 SNA*, the concept of income in the *SNA* and *BPM* differs from the one generally understood in economics and business accounting. In particular, holding gains and losses are not considered part of income in the *SNA* and *BPM*. A thorough review of the concept of income in the *SNA* and *BPM*, including the implications for all income flows, would be beneficial.

### 2. Reinvested Earnings

A5.28 Reinvested earnings are recorded for direct investment equity in the integrated framework of the *SNA*/*BPM*, but only as supplementary items for other equity investments. Further investigation is required to test the practical feasibility of extending the treatment of reinvested earnings in the integrated framework of the *SNA*/*BPM* to all investments in equity, including portfolio investment equity and domestic equity relationships. It could also be investigated whether certain provisions can be excluded from reinvested earnings, such as mandatory, systemic provisions that are part of the core business, as is the case for banks.

### 3. Treatment of Rent

A5.29 The *2025 SNA* and *BPM7* broadened the definition of rent to cover all revenues and expenditures related to putting nonproduced nonfinancial assets (regardless of their life span) at the disposal of another institutional unit for use in production. This also includes revenues and expenditures related to obtaining observable phenomena. However, the current location of the recording of rent is still under discussion. Various options for recording the revenues and expenditures related to rent in the sequence of economic accounts are still under investigation (i.e., allocation to the earned income account, generation of earned income account, or production account).

## D. Issues Concerning Financial Instruments

### 1. Transactor vs Creditor/Debtor Approach

A5.31 The application of the transactor vs debtor-creditor approach to identifying the counterpart to transactions has been raised in the context of consistency between the *SNA* and *BPM*. The clarification of this issue has become particularly important in the context of from-whom-to-whom matrices, which have emerged as a key analytical element in macroeconomic analysis. While the *2025 SNA* and *BPM7* continue to use the transactor approach as the fundamental principle in macroeconomic statistics, more research needs to be conducted to explore the options and to arrive at guidance that balances consistency, conceptual, and practical considerations for the application of the transactor versus the debtor-creditor approach.

## 2. Loyalty Programs and Gift Cards

A5.32 Loyalty programs, sponsored by various businesses, offer rewards, discounts, and other special incentives as a way to attract and retain customers. They are designed to encourage repeat business, offering people a reward (in the form of miles or points) for store/brand loyalty (hence the name). Many businesses also sell gift cards, not only to encourage and build customer loyalty, but also to further market a brand to new potential clients. The growing variety and spread of loyalty programs and the growing size and variety of the gift card industry suggest there is a need to comprehensively assess how to classify them and record the corresponding flows and positions in macroeconomic statistics. Besides, many loyalty programs, especially frequent flyer and hotel reward programs, have a mixture of resident and nonresident members. Thus, there is a need to assess the cross-border implications of transactions in these rewards on macroeconomic statistics.

## 3. Treatment of Securities Lending, Gold Loans, Crypto Lending, and Similar Transactions as well as Their Related Revenues

A5.33 To achieve a conceptually sound and practically feasible treatment, the recording of securities lending, gold loans, crypto lending, and similar transactions (including transactions in precious metals in general), as well as the related revenues, require further investigation. The research on this issue may also cover the recording of lent/borrowed assets in the balance sheets of institutional units involved depending on the agreed treatment of the related revenues and the classification of these units. Additionally, it may also cover the treatment of onselling repoed/borrowed securities and gold, lent/borrowed crypto assets, etc., and the potential recording of negative asset positions of securities, gold, crypto assets without a corresponding liability designed to act as a medium of exchange (i.e., nonfinancial assets), etc. on the balance sheets. The treatment of cash collateral and other types of collateral and the recording of revenues from securities lending and gold loans should also be included in the research agenda to enable a holistic discussion on this type of revenue.

## 4. Valuation of Unlisted Equity

A5.34 Valuation based on own funds at book value (OFBV) may result in an underestimation, because the value of some intangible assets, such as brands and customer lists, may either not be recognized in business accounting standards or be valued at historic cost. Moreover, divergent national business accounting practices may lead to significant bilateral asymmetries. In addition, real estate may be undervalued if conservative appraisal methods are recommended by business accounting standards. In addition, the treatment of provisions under the OFBV method needs more research, as the OFBV method values unlisted equity based on its value in the financial statements of the enterprise, which could be affected by the recognition of provisions. The development of an enhanced OFBV method that improves the valuation of intangible assets and of real estate would better align the valuation of unlisted equity with market values.

## 5. Recording of Unallocated Gold Accounts

A5.35 Paragraph 12.65 of the *2025 SNA* states that unallocated gold accounts should be classified as deposits on the liability side, while paragraph 12.45 says that unallocated gold accounts with nonresidents should be classified as monetary gold under reserve assets if they are under the control of the monetary authorities and meet the other criteria for reserve assets. A similar treatment is described in the *BPM7*. An argument for treating such unallocated gold accounts held by monetary authorities as monetary gold is that they give title to claim delivery of gold and therefore would be similar to gold bullion in practice. Conversely, as mentioned in paragraph [6.79] of the *BPM7*, accounts held by the monetary authorities that are only linked to the price of gold are classified as deposits. It should be noted that there is also an asymmetry for gold bullion held as reserve assets, which is only recorded as financial assets but not as liabilities, reflecting the fact that monetary gold is a special category.

A5.36 The result of the inconsistent treatment of unallocated gold accounts means that the instrument classification of unallocated gold accounts as an asset depends on its functional classification. Further investigation is required to test the feasibility of always classifying unallocated gold accounts as deposits and also as reserve assets if held by monetary authorities, but without affecting their instrument classification as deposits.

## 6. Negative Equity Positions

A5.37 The *2025 SNA* and *BPM7* provide conceptual guidance on the treatment of negative equity positions by allowing for the recording of negative equity positions as the default option and only change negative positions to zero in specific cases where liability is strictly limited. Further investigation is required to obtain empirical evidence on both domestic and cross-border equity relationships beyond direct investment to determine the appropriate treatment.

## 7. Direct Investment Statistics Based on Control (Instead of Both Control and Influence)

A5.38 Further research is necessary to develop a set of direct investment statistics based on control relationships, rather than on both control and influence relationships. Such statistics would help with analysis of the role of direct investment in globalization given the more general emphasis put on control in the *2025 SNA* and *BPM7* (e.g., the recommendation to increase the granularity of the institutional sector accounts and external accounts by identifying foreign-controlled nonfinancial and financial corporations). Such statistics could also help with the reconciliation of direct investment statistics with activities of multinational enterprise (AMNE) statistics and foreign affiliate statistics (FATS).

## 8. Pass-Through Funds

A5.39 While the adoption of an internationally agreed definition and typology of SPEs assist compilers in their identification and promote cross-country comparability, it is important to monitor the evolution of these units given the changing nature of financing patterns of multinational enterprises (MNEs) and to update the definition and typology of SPEs if needed.

A5.40 In addition to SPEs, MNEs also invest via their operational subsidiaries abroad. *BPM7* and the fifth edition of the *OECD Benchmark Definition of Foreign Direct Investment* propose a method to identify funds passing through the enterprise from its other business based on the residency of the ultimate controlling parent (UCP). However, more research is needed. This research could focus on a few areas. First, the development of a decision tree to identify “near-SPEs”, which are entities that do not meet the definition of SPEs but that display SPE-like behaviour, such as serving as financial intermediators within the MNE group, would help compilers identify additional entities involved in pass-through activities. A second focus should be on methods to remove the “inflation” in direct investment statistics caused by pass-through funds. This includes the interpretation of the breakdown of outward positions by residency of the UCP.

A5.41 Another possibility would be the development of the “ultimate directional principle” (UDP), which would net out all pass-through funding and enable the presentation of direct investment statistics on an ultimate counterparty basis. The calculation of direct investment according to the UDP begins by determining the direction of control/influence (inward or outward) in the direct investment relationship, but this direction is determined based on the residency of the ultimate controlling parent of the immediate direct investor rather than on the residency of the immediate direct investor. It also applies to all direct investment relationships and not just to fellow enterprises.

## 9. Real Estate Investment Funds

A5.42 Investment funds that own and rent out dwellings and/or commercial property are considered providers of rental and other types of real estate services in the SNA and BPM, rather than providing financial services. As providers of nonfinancial services, they are classified in the nonfinancial corporations sector, and not as financial corporations (i.e., non-MMF investment funds). On the other hand, investment funds that primarily invest in debt and equity instruments in companies that own and rent out dwellings and/or commercial property would qualify as non-MMF investment funds. This also holds for investment funds that directly invest in real estate in other economies, in which case the investments are recorded as investments in equity of notional nonresident units. This guidance regarding the classification has been questioned, and may need further consideration of all pros and cons of different ways of classifying this investment funds.

### 10. Corporate Restructuring

A5.43 The 2025 SNA and BPM7 provide guidance on the statistical treatment of mergers and acquisitions, corporate inversions, migrations, and other types of corporate restructurings. However, additional guidance could be added to clarify the criteria for recording transactions or other changes in volume for assets and liabilities appearing and disappearing in such corporate restructurings, including harmonization of wording (also with the BD5) to ensure consistency across the macroeconomic statistical standards.

### 11. Ultimate Host Economy (BPM Only)

A5.44 While BPM7 and the BD5 further developed the concept and methods to compile outward direct investment position statistics by the ultimate host economy (UHE), it is recognized that more research is needed. Therefore, these manuals encourage compilers to explore the different concepts of UHE, the different methods for reallocating positions from the immediate to ultimate host economies, and the different populations to be covered (e.g., all direct investors, only resident direct investors that are ultimate controlling parents, or excluding special purpose entities (SPEs)). Experience gained through this process could inform future guidance on the compilation of outward direct investment position statistics by UHE.

## E. Issues Involving Nonfinancial Assets

### 1. Marketing Assets

A5.46 While developing the *2025 SNA* and *BPM7*, it was agreed that marketing assets should in principle be recognized as produced assets, thus significantly extending the asset (and production) boundary of the integrated framework of the SNA. This recommendation was not endorsed by the 55$^{th}$ session of the United Nations Statistical Commission in 2024 which requested that further research should be carried out on measuring marketing assets before this recommendation can be incorporated in the standards.

### 2. Recording of Flows Involving the Harvest of Biological Resources by Units Other Than the Economic Owner or Where There Is No Economic Ownership

A5.47 The issue of recording flows involving the harvest of biological resources by units other than the economic owner or where there is no economic ownership has been raised in the context of the treatment of household collection of firewood, household production of energy, and the recording of depletion for illegal fishing.

A5.48 The underlying feature is that the economic unit undertaking the extraction of the resources (timber or fish are good examples, but it may apply more broadly to, for example, hunting, nonwood forest products, etc.) is different from the economic owner of the resource and/or there is no economic ownership of the resource.

A5.49 There are a range of challenges that require further investigation to arrive at a full reconciliation between the entries in the production account, other current and accumulation accounts, and the balance sheets, in such a way that where there are future economic benefits accruing to the economic unit harvesting the resources (reflected in measures of output and use), changes in the balance sheets of the resources also need to be considered.

# F. Emerging Issues

## 1. Emissions Permits

A5.60 Further guidance is required on the treatment of emission permits issued freely by governments, multi-country emission permit schemes, and the typology of emission permits. The guidance needs to balance additional flexibility for economies that have much more developed emission trading schemes and limiting inconsistencies brought about by allowing different treatments which would introduce, among other issues, implications for the comparability of government debt. More importantly, the recording of emission permits also needs to be reconsidered as emissions trading schemes evolve over time, including in new ways that further impact the proposed treatment emission permits.

## 2. Climate Offsets

A5.61 There is currently no guidance on the treatment of climate offsets, despite being used significantly and issued by government and private sector. The treatment of these climate offsets requires further investigation.

## 3. Classification of Crypto Assets Without a Corresponding Liability Designed to Act as a Medium of Exchange

A5.62 The national accounts and external accounts communities agreed to monitor developments relating to crypto assets without a corresponding liability designed to act as a medium of exchange, and to review the recommendation to classify them as nonproduced nonfinancial assets in case there are significant market, regulatory, and/or accounting changes that may justify updated guidance. The classification of crypto assets with a corresponding liability (e.g., 'stablecoins') could also be reviewed.

## 4. Sustainability-Related Data

A5.63 Environment, Society, and Governance (ESG) and green financial instruments are reported separately as "of which" lines/supplementary items in the financial accounts and balance sheets in the *SNA* and *BPM*. Considering that the analysis continues to evolve, there may be scope to further develop the sustainability- and climate-related indicators and to add granularity. For example, the classification of ESG and green financial instruments should be monitored, and an internationally agreed classification of low-carbon technology products could be developed to analyse trends in global trade in these products, which is key for technology diffusion.

A5.64 Work on various environmental related classifications, such as environmental taxes and environmental subsides and a functional classification of environmental-purposed produced assets, are being undertaken in the context of the forthcoming update of *SEEA* and the G20 Data Gaps Initiative. The relevance of these classifications for a more granular presentation in the *SNA* needs to be investigated.

## 5. Treatment of Radio Spectra

A5.65 There is an apparent inconsistency between the treatment of the radio spectra as outlined in paragraphs 27.51 to 27.54 of the *2025 SNA* and the general principles for rights to use a natural resource outlined in paragraphs 27.16 to 27.19, noting that the treatment of radio spectra was not an issue for consideration in the update of the *2008 SNA* and accordingly remains unchanged from the *2008 SNA*. It also showed not to be possible to fully address this issue in the remaining time for the finalization of the *2025 SNA*. Options would need to be properly considered. These may require changes to either the general principles, the treatment of the spectra, or both, and clearly any such changes would require extensive research and consultation.