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## Economic Commission for Europe

### Conference of European Statisticians

#### Group of Experts on National Accounts

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Item 10 of the provisional agenda

##### Information items and other business

## Report of the Workshop on Financial Accounts

### Note by the secretariat

#### *Summary*

The document presents the key outcomes of the Workshop on Financial Accounts, which took place in Brussels, Belgium, European Free Trade Association House, on 14-16 November 2022.

The report is submitted to the Group of Experts on National Accounts for information.



## I. Introduction

1. The Workshop on Financial accounts for European Free Trade Association (EFTA) Partner Countries and the countries benefitting from the European Union Instrument for Pre-Accession Assistance (IPA) was held on 14-16 November 2022 at the EFTA House in Brussels. It was jointly organised by the European Free Trade Association, Eurostat, European Central Bank (ECB), International Monetary Fund (IMF) and United Nations Economic Commission for Europe (UNECE). Mr Gerard Eding, Director of National Accounts from Statistics Netherlands chaired the workshop and moderated the online participants.

2. The Workshop was attended in person by 39 and online by 32 participants from the National Statistical Offices (NSOs) and Central Banks of the following countries: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Indonesia, Kazakhstan, Kyrgyzstan, Mongolia, Montenegro, Netherlands, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine, and Uzbekistan, and representatives from the European Free Trade Association, Eurostat, European Central Bank, International Monetary Fund, United Nations Economic Commission for Europe (UNECE) and United Nations Mission in Kosovo (UNMIK).

## II. Organization of the Workshop

3. The Workshop was part of the regional initiatives to support the implementation of the System of National Accounts 2008 (2008 SNA). The previously organised workshops have revealed that many countries have already progressed well with the first phase of implementation of the 2008 SNA and have made significant progress with implementation of the Balance of Payments Manual (6th edition). Countries are now focusing on sector accounts, particularly financial accounts. Many countries are in early stages of implementation or have plans to launch the process. This Workshop on Financial Accounts aimed at providing theoretical background, exchanging country experience and strengthening the institutional cooperation between the banks and the statistical offices.

4. The following substantive topics were discussed based on presentations and supporting documentation:

- A. Role and Uses of Financial Accounts
- B. Conceptual issues
- C. Data sources
- D. Organization of financial accounts compilation
- E. Ensuring consistency in practice
- F. Conclusions and future work

5. All materials of the workshop are available at:  
<https://unece.org/statistics/events/workshop-financial-accounts>

## III. Summary of the sessions and main conclusions

### A. Role and Uses of Financial Accounts

6. The session was based on presentations by IMF, ECB, Statistics Netherlands and Statistics Iceland. John Verrinder from Eurostat acted as a discussant.

7. The presentation of Emmanuel Manolikakis (IMF) highlighted the important role of financial accounts in describing economy's performance. When analysing financial risks, it is essential to understand the financial markets and how creditors and debtors are using financial accounts for getting a picture of the overall situation of an economy. Addressing related questions properly requires analysis focusing as much on the economic sectors as on the total economy. The whom-to-whom presentation of the financial instruments by sector provides analytically insightful lens through which economic activity can be analysed.

8. Both the financial instruments and non-financial assets are important for the economy's and its sectors' balance sheets. Any analysis of a balance sheet is incomplete without the full set of assets. However, each country can choose to measure those items that are most important for the national economy.
9. Taking into account their integrated nature, the financial accounts expose the statistical shortcomings and help to impose a statistical rigor on the construction of all macroeconomic statistics.
10. It is important to remember that every country is doing their best and when comparing countries, one always understands the circumstances. However, as a producer, it is important to talk to the peers and the main trading partners to learn and improve the estimates. Financial Production, Flows and Stocks in the System of National Accounts (2015) is a compilation guide that gives further guidance on challenging areas.
11. The presentation by ECB brought up a few examples of the use of financial accounts in economic analysis. The examples covered the financial projections produced for the euro area (based on quarterly data), leverage and financing of non-financial corporations, analysis of vulnerability of household sector and financial intermediation of non-banks.
12. The presentation raised the importance of the whom-to-whom tables as an analytical tool, especially for the analysis of leverage and financing of non-financial corporations.
13. The financial crisis highlighted the increased role of euro area non-bank financial institutions. This has led to new and enhanced ECB reporting regarding these institutions and is also recognized at G20 level in the recommendations of the Data Gaps Initiative.
14. The example of the Netherlands provided an overview of the producing financial accounts for a very open economy and their policy uses in the country. The presentation clearly indicated that financial accounts are a rich source for insights in the economy with increasing potential and enhanced policy use.
15. Statistics Iceland presented another country example of production and use of financial accounts in a small country with shorter experience. The presentation demonstrated what can be achieved in a relatively short period of time and with limited resources if the focus is put on the right place.

## **B. Conceptual issues**

16. The session was based on presentations by Eurostat and IMF and included a practical exercise. Gerard Eding (Statistics Netherlands) acted as a discussant.
17. The presentation of John Verrinder (Eurostat) introduced the position of Financial Accounts in the sequence of accounts, defined institutional units and sectors, explained the idea of consolidation eliminating transactions and stock positions within the same sector (or sub-sector) and discussed the usefulness of the whom-to-whom analysis. The presentation started by discussing the flows in the economy, then touched upon the reconciling of stocks and flows, and covered the key features of accounts.
18. Emmanuel Manolikakis (IMF) elaborated on the financial instruments and issues related to their valuation. It first introduced the characteristics of non-financial and financial economic assets and then focused on financial assets, financial instruments and links between financial assets, liabilities and debt. The presentation provided comparison of market value and nominal value and defining and measuring interest for traded debt securities (debtor and creditor approaches). The market value is the preferred valuation method in the SNA. When actual market values are not available, an estimate is required. The alternative methods of approximating market value of shareholders' equity were introduced together with some special cases like treatment of loan loss provisions and write-offs, and treatment of financial and operating leases. Finally, the valuation of equity and investment fund shares and the position of the other changes in asset account were also covered.

19. The session concluded with an exercise where participants compiled the financial (transactions) account, other changes in volume account and revaluation account based on the opening balance sheet and description of different events that happened during the year.

### **C. Data sources**

20. The second day of the workshop moved to more practical issues related to compilation of Financial Accounts. The data sources session was based on presentations by UNECE, IMF, National Bank of the Republic of North Macedonia and Central Bank of the Republic of Türkiye. Örn Ágústsson (Statistics Iceland) acted as a discussant for this session.

21. Tihomira Dimova (UNECE) first presented the results of the survey assessing the status of compilation of financial accounts in the participating countries. The results revealed that four countries produce financial accounts by institutional sectors and three more have experimental estimates, not necessarily for all institutional sectors yet. All other seven countries have intention to start compilation in the future. The responsibilities for compilation and dissemination of financial accounts are split: in seven countries this is or will be the central bank and in the other seven – the statistical office. Other institutions involved include the ministries of finance, financial market regulators, stock exchanges, tax administration, etc. The main challenges in the countries compiling financial accounts are related to the lack of direct data sources for the household sector and data gaps for the non-financial corporations, limited data sources on financial flows and valuation of some financial instruments. The lack of human resources, trained staff, limited access, gaps or inconsistencies in data sources are the main challenges impeding the compilation in the remaining countries.

22. The second presentation, by Emmanuel Manolikakis (IMF), gave an overview of the main data sources used for compilation of Financial Accounts. All financial information for Monetary and Financial Statistics should ideally be collected directly from individual financial institutions. However, in practice, this is not always feasible and other data sources should be assessed (applying cost-benefit analysis).

23. In case of non-financial corporations, the size and structure affect the data sources available to compile financial accounts and balance sheets. The four primary data sources are survey statistics, taxation data, publicly available corporate financial statements and counterpart data.

24. Households' sector presents a challenge in many countries, as there is little survey data for the complete sequence of sector accounts. Household asset and debt surveys, where these exist, are infrequent and require a sufficient sample size to be representative and an adjustment to obtain a universe estimate. Administrative and counterpart data and residual derivation may also be used in some cases but still leaves many challenges.

25. Government Finance Statistics (GFS) data can be applied to the whole public sector. However, recording stock of non-financial assets and valuation and interpretation of government non-financial assets raise special difficulties. While these challenges exist, partial balance sheets can still provide highly relevant information.

26. For the rest of the world sector, external sector statistics (balance of payments and international investment position) are the main data sources. The presentation compared the perspectives of the rest of the world account and external sector statistics and introduced how to link financial instruments with the functional categories of the external sector statistics.

27. The presentation concluded by an overview of the security-by-security database and its coverage, benefits and challenges.

28. Presentations by Goran Hristovski (National Bank of the Republic of North Macedonia) and Burcu Tunç (Central Bank of the Republic of Türkiye) illustrated the good work done in advancing the compilation of financial accounts. In particular, the presentations focused on the issues related to data sources. In both countries financial accounts are secondary statistics produced by the central banks using a variety of data sources, some of them compliant with international statistical standards (e.g. BoP, IPP, GFS) and others built

for regulatory and administrative purposes. In the existence of multiple sources for the same asset/transaction the decision is based on ranking of data sources, taking into account the methodological compliance with SNA, reliability, sectoral consistency, coverage, etc.

## **D. Organization of financial accounts compilation**

29. This session focused on organisation of financial accounts compilation in different countries. The presentations by Statistics Netherlands, Statistical Committee of the Republic of Armenia, Statistics Iceland, Central Bank of the Republic of Türkiye, ECB and Eurostat introduced different allocation of responsibilities and models of cooperation between the statistical office, central bank and other involved institutions.

30. Gerard Eding (Statistics Netherlands) presented the enhanced cooperation between the statistical office and central bank in the Netherlands. The production process for National Accounts (rest of the world account) and the Balance of Payments is truly jointly organised: tasks distributed based on comparative advantages, joint surveys for financial and non-financial institutions, work towards common business register, agreed production chain management and a joint external advisory board.

31. Dutch experience clearly indicates that it is possible to produce harmonised data by compiling the external sector statistics within the broader framework of sectoral accounts and at the same time improve the quality of both statistics. Reaching the harmonised data requires strong cooperation on every level and willingness to give up some institutional autonomy.

32. Haykush Titizyan (Statistical Committee of the Republic of Armenia) introduced the way institutional arrangements for the preparation of financial accounts and distribution of responsibilities have been organised in Armenia. The statistical office is responsible for compiling the financial accounts. Ministry of Finance, Central Bank and State Revenue Committee are the main partners and data providers. A working group including statistical office, central bank and ministry of finance has been established regarding the implementation of the 2008 SNA.

33. Örn Ágústsson (Statistics Iceland) presented the organization of Financial Accounts compilation in Iceland. The compilation efforts are split between the Central Bank and the Statistical Institute based on a Memorandum of Understanding. Statistics Iceland is responsible for publishing the accounts. The importance of updating the agreements to meet new demands and developments was highlighted.

34. Burcu Tunç (Central Bank of the Republic of Türkiye) described how the responsibilities for production of financial accounts have been distributed in Türkiye. Inter-Agency Working Group on Financial Accounts (Central Bank, Statistical Office and Ministry of Treasury and Finance) has been established in 2008 to minimize differences in classification and coverage. This has been achieved by discussing conceptual and methodological issues and designing consistency checks together.

35. Another important mechanism involving the same institutions is the Integrated Accounts Working Group (launched in 2017). The aim of this group is to reach consistent integrated accounts by identifying differences in coverage and data sources, harmonizing the methodology and harmonizing the revisions policy.

36. The third cooperation mechanism, Inter-Agency Working Group on Securities Statistics (launched in 2018), involves the Central Bank, Ministry of Treasury and Finance, Central Registry Agency, Takasbank (Istanbul Settlement and Custody Bank Inc) and Banking Regulation and Supervision Agency. Objectives of that group are analysing existing data sources, identifying related data gaps, harmonizing the reporting templates and minimizing the reporting burden for reporting bodies.

37. The presentation by Pierre Sola (European Central Bank) and John Verrinder (Eurostat) introduced the institutional arrangements in EU countries for the compilation of financial accounts. In the EU, the central bank being fully in charge of compiling financial accounts is the most common arrangement. The setup where the statistical office compiles the annual Financial Accounts, and the central bank is in charge of the quarterly Financial

Accounts can be found in nine EU countries. In three countries, Financial Accounts are fully compiled by the statistical office.

38. The presentation also gave examples of arrangements on specific topics like registers of entities, revision practices and legal arrangements.

39. The session was concluded with the breakout group discussions covering benefits and consequences of different institutional arrangements, factors to be considered when deciding responsibilities, initial steps of compilation and the level of details the accounts should have.

## **E. Ensuring consistency in practice**

40. The final day of the workshop focused on ensuring consistency between institutional sectors and between financial and non-financial accounts. The session was based on presentations by IMF and Statistics Iceland. The practical exercise provided participants with a hands-on experience with compiling the accumulation accounts and balance sheets. Pierre Sola (European Central Bank) acted as a discussant in this session.

41. In his presentation, Emmanuel Manolikakis (IMF) guided the participants through the balancing processes. First, he explained the balancing of the Current and Capital Account and Financial Account and the related main identities. Second, he covered compilation and main identities for the national balance sheet accounts. Finally, the theory was put into practise using a step-by-step compilation example.

42. The presentation was followed by a practical experience illustrating the compilation of the accumulation accounts and balance sheets, highlighting the structure of the accounts, the relation of the accumulation accounts with the income accounts and the balance sheets, the relation between entries recorded in the various accumulation accounts and balance sheets, and finally the derivation of the balances.

43. The final presentation, by Örn Ágústsson (Statistics Iceland), demonstrated the Icelandic efforts in ensuring consistency through institutional cooperation. The presentation covered the definition of responsibilities, data sharing, regular meetings to evaluate results and the holistic approach for balancing by looking at all sectors and all instruments. An interesting tool used in Iceland is the ranking of source data by their quality. It helps to identify the strong(er) data sources and the ones that can be used as supplementary ones. The presentation also highlighted the increasing need for common sector classification register.

## **F. Conclusions and future work**

44. Based on the discussions during the workshop, the participants agreed on some important takeaways that could guide the countries when launching or improving the compilation of financial accounts and balance sheets.

45. At the start of the process the compilers should explore and prioritize the needs of users, both national and international. They also have to engage with possible partners and communicate on their needs, resources and expectations.

46. The second important step is taking stock of all available information and data sources, analysing their quality and usefulness for the financial accounts. Not all sources would be suitable from the start. Confronting the data from different sources will reveal gaps and drawbacks and provide the basis for their improvement. This analysis will also provide ranking of the data sources and identification of those that can be used as primary and those that will be supplementary. The suitability of data sources may vary over time but also by sectors or financial instruments.

47. Compilers also have to aim at efficiency and avoid duplication of work, the data collection has to meet the needs of different partners and allow re-using as much as possible. The compilation of financial accounts should start with the available data, even though they do not cover all the institutional (sub)sectors or financial instruments. The coverage and quality can be expanded gradually.

48. International standards recommend classifications and breakdowns that are important for international comparability, but compilers should prioritize items that are significant for their economy and meet their users' needs.

49. Discrepancies indicate the areas that need to be further examined and improved. They should not be hidden from users, as they indicate issues that cannot be explained and need to be further analysed. In the short run some discrepancies can be tolerated, but in the long run they need to be resolved to the extent possible. However, zero discrepancies should not be the ultimate goal. Compilers should rather set thresholds for discrepancies that can be tolerated and are accepted by users. The report of the Eurostat/ECB task force on vertical discrepancies<sup>1</sup> provides some examples and guidance.

50. Revisions are part of the compilation process and should be seen as an improvement to the estimates when new more reliable data becomes available. Users would benefit from a clear revision policy, preferably aligned with the other parts of the accounts. Compilers need to be transparent about revisions and explain the changes to their users.

51. Several examples on the importance of good planning and organization of the compilation process were provided. Joint working groups with involved partner organizations will facilitate the improvement of the data sources and the accounts. It is also important to decide on the distribution of responsibilities depending on the national circumstances. The legal framework, including memoranda of understanding (MoU), has to be put in place in order to support the institutional arrangements and the data sharing among the institutions. Exchanging and providing examples of MoUs of more advanced statistical offices and central banks could help the countries at early stages of implementation.

52. The worldwide accepted Generic Statistical Business Process Model can provide a framework to structure the financial accounts compilation.

53. Cooperation with experts from other countries and networking is very important for sharing experience and knowledge. The workshop concluded by emphasizing the importance of continuing organising similar workshops and other technical assistance giving priority to methodological and practical issues raised by countries. More concrete proposals for further activities were provided via online survey.

54. With respect to financial accounts the participants asked for a follow up training workshop focusing on practical aspects of the compilation of financial accounts using real datasets. These in-depth courses could cover:

- estimation or interpolation of missing data for the household sector;
- compiling accounts for other financial corporations' sector;
- building whom-to-whom matrices;
- ensuring consistency and balancing the accounts, including assessing the relationship with other macroeconomic data sets;
- using financial accounts and balance sheets for risk assessment; and
- compiling and using monetary statistics reports.

55. In addition, technical assistance missions would be beneficial for the countries at the initial stages of compiling financial accounts.

56. The participants also highlighted the need of organizing workshops in other areas of national accounts. The suggested topics include compilation of Supply and Use and Input-Output Tables (including their use to estimate the non-observed economy), measuring financial intermediation services indirectly measured, digitalization and digital economy, and globalization.

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<sup>1</sup> [https://www.ecb.europa.eu/stats/pdf/Recommendations\\_on\\_Vertical\\_consistency.en.pdf](https://www.ecb.europa.eu/stats/pdf/Recommendations_on_Vertical_consistency.en.pdf)