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For discussion

Progress on the Development of Compilation Guidance on the Recording of Crypto Assets in Macroeconomic Statistics

Progress on the Development of Compilation Guidance on the Recording of Crypto Assets in Macroeconomic Statistics[1]

INTRODUCTION

1.   **Given the increased importance of crypto assets and related activities in the global economy, guidance notes (GNs F.18 and DZ.10) were developed on the treatment of crypto assets** including nonfungible tokens (NFTs) in the context of updates to the *System of National Accounts 2008* (*2008 SNA*) and the *Balance of Payments and International Investment Position Manual, sixth edition* (*BPM6*).

2.   **Significant challenges become apparent in implementing the methodological guidance provided in the above GNs due to current lack of source data and compilation guidance.[2]** Given the complexities and limited transparency on the suitable data sources, there were suggestions from compilers during the global consultation on these GNs to provide practical compilation guidance on the recording of crypto assets within macroeconomic statistics. Further, the Advisory Expert Group (AEG) on National Accounts and IMF Committee on Balance of Payments Statistics (the Committee) also acknowledged the need for developing practical compilation guidance to aid in implementing the methodological recommendations.

3.   **The IMF Statistics Department established an intra-departmental team with experts from the external sector statistics, monetary and financial statistics, and national accounts for developing the compilation guidance.** The team started working recently and prepared a draft annotated outline (see next section below) and a tentative timeline for preparing the compilation guidance for consideration of the AEG and the Committee.

4.   **It is proposed to follow an evolving approach for developing the compilation guidance on crypto assets.** Considering the fast-changing nature of crypto assets ecosystem and the uncertainties associated with the regulatory/legal/accounting/institutional frameworks on these assets, it is noted that the compilation guidance will be based on the current knowledge related to existing data sources and methodology. The guidance may require further/ongoing updates depending on the changes that may occur in the coming years.

5.   **Further, the IMF is leading the G20 DGI-3 Recommendation 11 on Digital Money, which will develop a common data collection framework for measuring crypto assets among the G20 economies and non-G20 FSB member economies.** The scope of the recommendation covers the central bank digital currencies (CBDCs), stablecoins, and other crypto assets designed to be used as a means of payments, such as Bitcoin and Ether. The compilation guidance will also support the work on this Recommendation.

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[1] Prepared by Venkat Josyula, Rita Mesias, Mher Barseghyan, Martha Tovar, Emmanuel Manolikakis, Jose Carlos Moreno-Ramirez, and Pawel Pisany (all from the IMF Statistics Department).

[2] These are short/medium-term challenges. In the longer term, it is expected that regulation, including on data requirements, could become a key data source, under the IMF/FSB supported principle of "same activity, same risk, same regulation."

DRAFT OUTLINE OF THE COMPILATION GUIDANCE

PURPOSE OF THE COMPILATION GUIDANCE

6.　　The compilation guidance aims to provide practical guidance on the source data and compilation methods for measuring crypto assets related transactions/positions in macroeconomic statistics. This guidance will assist national compilers to adapt the data sources and compilation methods, aligned with national circumstances and international statistical standards, to ensure collection, compilation and dissemination of consistent and comparable estimates related to these assets across countries.

PROPOSED STRUCTURE

7.　　**The compilation guidance will have four sections and three annexes covering the following issues:** (i) Overview—explains the purpose of the guidance, current state of play, background and motivation, and organization of the compilation guidance document; (ii) Methodological Framework— this section will briefly highlight the methodological guidance outlined in the relevant chapters of *2025 SNA/BPM7* and also the scope of G20 DGI-3 Recommendation 11 within the framework of crypto assets; (iii) Data Sources and Compilation Methods—this section will provide recommendations based on the assessment of administrative data sources, existing and new surveys, and other data sources; and (iv) Data Compilation and Dissemination: Challenges and Solutions (tentative—to be developed at a later stage).

8.　　**The annexes are aimed at presenting the relevant use cases, country experiences/case studies, data reporting templates/instructions for new surveys, and guidance on the concepts of money and liquidity in monetary and financial statistics (MFS).** Reference is made to Annex I for the proposed contents of the compilation guidance. Rest of the paper will focus on the proposals relating to the development of data sources and compilation methods.

DATA SOURCES AND COMPILATION METHODS

9.　　**Possible sources to be investigated include administrative data sources, surveys, and commercials databases including proposals for collecting data from new data sources/surveys.** Currently, overall data on crypto assets in macroeconomic statistics are very limited. Therefore, though each data collection method has its limitations, it is considered important to analyze the possible usefulness of each data source. Combination of data from different sources may result in an acceptable set of data that could be used for compiling the estimates of crypto asset related transactions in macroeconomic statistics.

10.　　**More importantly, any relevant country experiences on data collection and compilation practices will be examined for possible inclusion.** While a comprehensive data collection and compilation system hardly exists in any of the countries at this stage, it is considered beneficial to include how some of the countries are compiling estimates and deal with the challenges incurred. In addition, sharing of plans on possible data collection and compilation initiatives could also be considered.

11.　　**Unique nature of these assets and lack of transparency associated with these assets imply that sources of data used for traditional financial assets may not be fully suitable nor accessible.** At the same time, importance of the transactions/positions in these assets and costs/benefits need to be assessed to decide on an appropriate source of data. Some important challenges on difficulties associated with the identification of flows/positions of these assets will be highlighted so that compilers

are aware of them. In this regard, the team plans to collaborate and benefit from the expertise of the IMF's Monetary and Capital Markets Department.

12. **Recommendations on the possible administrative sources for crypto assets data will be provided (may be by topical areas).** Some of these sources are common, but there are data sources that are specific to a particular area such as the international transactions reporting system (ITRS), and the central bank as well as other depository corporations standardized report forms for monetary statistics. Administrative data sources include (i) the financial statements of financial/nonfinancial corporations (including the central banks, other depository corporations, mining companies, stablecoin issuers, crypto exchanges) and general government; (ii) ITRS; (iii) tax records on taxes associated with sale/purchase/holding gains on crypto assets; (iv) records of regulators, etc.

13. **Recommendation on possible improvements to the existing surveys and proposals for new surveys will be provided.** The possible new surveys include surveys on mining companies, stablecoin issuers, crypto exchanges, custodians, etc. Proposed templates and instructions for data collection will be developed and presented in Annex II. For example, designing new surveys on crypto exchanges require collaboration with some large players (e.g., Binance, Coinbase, Kraken) to understand the data they can provide on a regular basis, usability of those data in the compilation of macroeconomic statistics, and possible limitations.

- Centralized crypto exchanges (CEX, for example Binance, Coinbase, Kraken) are probably the most important crypto intermediaries as they handle significant number of transactions on the crypto market; moreover, they offer custodian services; thus, they might be in possession of relevant data.

- However, decentralized crypto exchanges (DEX, for example Uniswap, Curve) will also be assessed for possible source data.

14. **An assessment of alternate data sources will be made to understand their usability for the measurement of crypto assets.** Several private data sources (e.g., Coinmetrics, Kaiko, Chainalyis) provide data on crypto assets mainly covering daily prices, market capital cap, top holders of bitcoins, etc. However, it is not clear whether they can provide data required for macroeconomic statistics.

15. **In addition, an assessment of the existing crypto assets data related projects of international organizations** (e.g., Project Atlas of BIS, Project Pyxtrial of BIS) **will be assessed for their usability in macroeconomic statistics.** An analysis of the data focused projects of international organizations helps in understanding the pros and cons of alternative sources of crypto assets data in comparison to traditional sources. In absence of reliable/incomplete data from conventional data sources, alternate data sources might be helpful in validating the data from those sources or compile initial estimates on these assets.

WORKSHOP FOR ASSESSING THE EXISTING SOURCE DATA AND COMPILATION METHODS

16. **It is proposed to conduct a workshop (virtual) to better understand the advantages and limitations of the existing source data/compilation practices, possible plans on data collection and use of alternate data sources, etc. covering all types of crypto assets and related activities.** In addition to AEG/Committee member countries (including international organizations) that are willing to

participate, other countries that have been working and relevant in this area will be invited to this workshop to be conducted by IMF tentatively during January 2024.

COLLOBORATION WITH THE TASK TEAM ON G20 DGI-3 RECOMMENDATION 11

17.   **The work on the compilation guidance will be developed in close collaboration with the task team on DGI-3 Recommendation 11 (TT Rec 11).** To avoid any possible duplication of work with regards to exploring different data sources and possible country cases, it has been agreed to adopt a coordinated approach with the same set countries/crypto exchanges/stablecoin issuers/custodians/commercial data providers and other data sources. Moreover, as part of Rec 11 project plan, a survey will be conducted whose outcome can feed into the compilation guidance. With regards to areas that are out of the scope of TT on DGI-3 Recommendation 11 (i.e., mining, non-fungible tokens), the drafting team started approaching the relevant countries to understand their source data and compilation practices.

PROPOSED TIMELINE FOR PREPARING THE COMPILATION GUIDANCE

18.   **It is planned to prepare the compilation guidance by the end of 2024.** The proposed timeline and the plan for developing the source data and compilation methods will be refined considering the feedback from the October 2023 meetings of the AEG/Committee. Interim updates on the proposed research and collaboration including with TT on DGI-3 Recommendation 11 will be provided to AEG/Committee and a draft document will be finalized for AEG/Committee consultation by October/November 2024. Following the approval of AEG/Committee (and the ISWGNA), the document will be published. At this stage, specific details on how this guidance will be published are yet to worked out. This compilation guidance is proposed to follow global consultation processes similar to the one used for the guidance notes of task teams and the draft chapters of *BPM7*. At this stage, specific details on how this guidance will be published remain to be worked out. Reference is made to Annex II for additional details on the proposed timeline.

Questions for the AEG/Committee:

1) *Do you agree with the overall structure of the compilation guidance and proposed timeline?*

2) *Are there any AEG/Committee member countries willing to participate in developing the compilation guidance? And/or sharing country experiences?*

3) *Do you consider that a practical workshop will be beneficial to develop further insights on data sources and compilation methods?*

4) *Do you have any suggestions on the procedure to be followed for finalizing/publishing the compilation guidance?*

5) *Do you have any other suggestions on the compilation guidance?*

Annex I. Proposed Contents of the Compilation Guidance

1. **Overview**

   A. Purpose of the Compilation Guidance

   B. Current State of Paly

   C. Background

   D. Organization of the Compilation Guidance

2. **Methodological Framework for the Recording of Crypto Assets**

   A. Definition and Classification of Crypto Assets in Macroeconomic Statistics

   B. Digital Money and G20 DGI-3 Recommendation 11

3. **Data Sources and Compilation Methods**

   A. Data Considerations

   B. Assessment of Administrative Data Sources

   C. Assessment of the Existing Surveys for Possible Improvements and New Surveys

   D. Other Data Sources

4. **Data Compilation and Dissemination: Challenges and Solutions** (tentative-to be developed at a later stage)

   A. Data Quality Issues

   B. Institutional and Legal Framework Issues

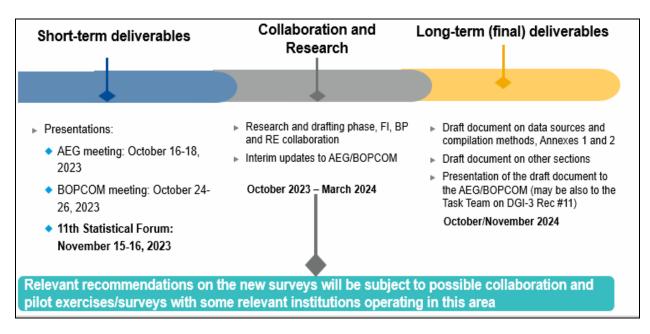   Data Sharing (collaboration among national and international organizations)

      Dissemination

      Metadata Development

      Capacity Building and Training

Annexes

   I. **Country Experiences and Case Studies**

   II. **Data Reporting Templates and Survey Instructions**

   III. **The Concepts of Money and Liquidity in MFS**

Annex II. Tentative Timeline for Developing the Compilation Guidance