



REPUBLIC OF UZBEKISTAN

TECHNICAL ASSISTANCE REPORT—NATIONAL ACCOUNTS STATISTICS MISSION

December 2023

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TECHNICAL ASSISTANCE REPORT

REPUBLIC OF UZBEKISTAN

Report on National Accounts Mission,
February 6–17, 2023

DECEMBER 2023

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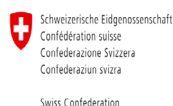


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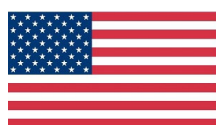


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Acronyms

| | |
|-----------------|---|
| <i>2008 SNA</i> | <i>2008 System of National Accounts</i> |
| CCAMTAC | Caucasus, Central Asia, and Mongolia Regional Capacity Development Center |
| CD | Capacity Development |
| FISIM | Financial Intermediation Services Indirectly Measured |
| GDP | Gross Domestic Product |
| IPI | Industrial Production Index |
| NAD | Department of Macroeconomic Indicators and National Accounts |
| NOE | Non-observed Economy |
| SA | The Statistics Agency under the President of the Republic of Uzbekistan |
| SUT | Supply and Use Tables |
| TA | Technical Assistance |

Summary Of Mission Outcomes and Priority Recommendations

1. A technical assistance (TA) mission on national accounts of the Caucasus, Central Asia, and Mongolia Regional Capacity Development Center (CCAMTAC) visited Tashkent during February 6–17, 2023. The mission assisted the Statistics Agency under the President of the Republic of Uzbekistan (SA) in developing the annual supply and use tables (SUT) and improving the non-observed economy (NOE) estimates. The mission also discussed the compilation of financial intermediation services indirectly measured (FISIM) in accordance with the *2008 System of National Accounts (2008 SNA)*.

2. Significant progress on national accounts made by the SA in recent years has been reflected in the compilation of discrete quarterly GDP and the implementation of 2008 SNA, although there are some areas for further improvement. In this regard, the mission identified three main areas:

- Improvement of data sources for national accounts.
- Further improvement of SUTs to compile GDP based on the SUT framework.
- Improvement of the NOE estimates.

3. The mission noted that the quality of national accounts is highly dependent on the quality of data sources, and their improvement should be a priority for the SA. The mission made the following key recommendations to improve the quality of data sources:

- Conduct a general population census and based on its results, adjust weighting methods in household surveys.
- Improve survey planning and data sharing by government agencies to eliminate duplication in data collection.
- Improve the methodology for compiling the industrial production index (IPI).
- Prepare and conduct sector-specific NOE surveys.

4. The mission reviewed the structure of gross value added (GVA) at current prices and the share of each sector in GDP and identified sectors with underestimated levels of NOE.

During the mission, methods for compiling the non-observed economy were discussed for the following sectors: Trade, transport, restaurants, education, healthcare, administrative and professional services. As a result of these discussions, the mission concluded that the NOE is significantly underestimated for each of these sectors. Therefore, a more accurate estimate of the NOE may lead to a significant increase in the overall level of nominal GDP.

5. The mission recommended that the SA conducts sector-specific NOE surveys in the relevant sectors. Considering that in most cases, households have no reason to hide spending, while corporations deliberately underreport sales turnover to avoid taxes, the main part of these surveys will be devoted to an in-depth study of household expenditures.

6. The mission also reviewed the compilation of SUTs and developed a plan for further improvement. The SA plans to compile SUT for 2021 in both current and constant prices. The mission discussed the format according to which price indices should be collected. SA staff also created conversion tables that can be used to convert various classification codes to the SUT format. The next mission in July 2023 will follow up on the progress in this area.

7. To support the development of national accounts, the mission recommended a detailed action plan with the following priority recommendations:

TABLE 1. Priority Recommendations

| Target Date | Priority Recommendation* | Responsible Institutions |
|----------------------|--|---------------------------------|
| December 2023 | Balance The SUT at current prices of 2021 | SA |
| January 2024 | Collect detailed price indices for the compilation of SUT at previous year's prices. | SA |
| March 2024 | Balance the SUT at constant prices of 2020. | SA |

8. Further details on the priority recommendations and the related actions/milestones can be found in the action plan under Detailed Technical Assessment and Recommendations.

Detailed Technical Assessment and Recommendations

| Priority | Action/Milestone | Target Completion Date | Status of implementation as of June 2023 |
|--|--|------------------------|--|
| Outcome: Data are compiled and disseminated using the concepts and definitions of the latest manual/guide | | | |
| H | Prepare a press release detailing the new estimates of FISIM and changes compared to the previously published data | April 2023 | Completed |
| H | Publish new time series of FISIM on the website | April 2023 | Completed |
| Outcome: Source data are adequate for the compilation of the national accounts | | | |
| H | Conduct logical and arithmetical control of each questionnaire of the survey on intermediate consumption. | July 2023 | Ongoing |
| H | In consultation with accountants of an enterprise, adjust the questionnaires for logical or arithmetical errors. | September 2023 | Ongoing |
| M | Prepare the final structure of intermediate consumption for 2020. | October 2023 | Ongoing |
| H | Balance the SUT at current prices of 2020. | December 2023 | Ongoing |
| H | Collect detailed price indices for the compilation of SUT at previous year's prices. | January 2024 | Ongoing |
| H | Balance the SUT at constant prices of 2020. | March 2024 | Ongoing |
| H | Conduct sector-specific NOE surveys for hotels, restaurants, transport, healthcare, education, and communication services. | 2023-2024 | Ongoing |

H – High; M – Medium

A. SUPPLY AND USE TABLES

Background

9. The February 2020 TA mission conducted by the IMF's Statistics Department assisted the SA in the implementation of an algorithm to balance SUT, which is developed by the IMF and operates in MS Excel as an add-in function, 'SUTB'¹. At that time, the detailed SUT covering 82 types of economic activities and 82 products was compiled in MS Excel without using any balancing software, which was labor-intensive and time-consuming. During the February 2020 TA mission, the 2017 SUT were balanced by using the SUTB function.

10. The SUTB function requires the following five arguments to generate a balanced SUT: the unbalanced SUT, three sets of accounting constraints, and a set of reliability coefficients. The constraints are grouped by type: two accounting-type constraints (supply-use and netting adjustments) and user-defined explicit constraints. The reliability coefficients represent the relative

¹ For more details, see [Michael Stanger - "An Algorithm to Balance Supply and Use Tables."](#)

robustness of the initial estimates. The scale of the coefficients has been defined from 0 to 100, with 100 representing fully reliable data and thus not subject to adjustments.

11. During the balancing of supply and use, certain challenges emerged that were related to the revision policy and quality of data sources. Due to the established practice of compiling SUT after the dissemination of GDP by production, some indicators such as output and intermediate consumption were fixed and therefore the reliability coefficients for these indicators were estimated at 100. The February 2020 TA mission recommended that the SUT be compiled before the publication of GDP. In this case, output and intermediate consumption would not be fixed and can be adjusted during the balancing process.

12. The February 2020 TA mission and SA staff agreed on the action plan to compile annual SUT in current and constant prices before the publication of annual GDP estimates. According to the plan, the annual SUT for 2020 in current prices should have been compiled by October 2021, while the annual GDP estimates for 2020 based on the 2020 SUT should have been published in December 2021. However, the execution of this workplan has been postponed due to the impact of COVID-19 restrictions.

Impact of Covid-19 Restrictions on the Compilation of SUT

13. As a result of the impact of the global pandemic (COVID-19) on statistical compilation activities at the SA, most of the original actions and/or target dates agreed during the February 2020 TA mission have been revised and extended by more than one year. At the same time, the SA identified the implementation of discrete quarterly GDP as the main priority for 2021, which also hampered the activities related to the compilation of SUT. Nevertheless, the SA was still able to make some progress. In this regard, the SA carried out the 2020 survey on detailed structure of intermediate consumption. The current mission assisted the SA with reviewing the results of this survey.

14. The 2020 survey on detailed structure of intermediate consumption was conducted during the global pandemic through electronic questionnaires. Any enterprise could fill out the questionnaire on the SA website. Overall, most large enterprises participated in the survey. However, there were enterprises among them that are not included in the statistical business register. The mission recommended that the SA updates the business register by adding these new enterprises.

Processing the Results of the 2020 Survey on Intermediate Consumption

15. Based on raw data from the survey, SA staff compiled the structure of intermediate consumption without applying weights to account for enterprise size. As a result, the structure of intermediate consumption was obtained where the costs incurred by large enterprises far exceed the costs of intermediate consumption incurred by small enterprises. Consequently, it became more difficult to balance the 2020 SUT by applying this structure. For example, the share of railway transportation in total intermediate consumption is quite high because this service is mainly used by large enterprises, while other types of products that are predominantly used by small enterprises are underestimated.

16. During the mission, the structure of intermediate consumption was adjusted. In the first stage, new enterprises were added to the business register. At the next stage, weights were assigned to large, medium and small enterprises. A similar process was implemented for non-profit institutions serving households (NPISH). By implementing the obtained results, the existing discrepancies between supply and use have been reduced. However, for some products, these discrepancies remained significant because many enterprises filled in the questionnaire incorrectly or left it blank.

17. The mission recommended that the SA applies sampling methods when planning each survey. It is also of great importance to carry out logical and arithmetical control for each

questionnaire. In case of a discrepancy, SA staff should immediately contact the accountants of the enterprise and clarify the data presented in the questionnaire. All questionnaires that do not meet the requirements of logical control should be corrected. The next mission in July 2023 will review the updated data and assist the SA in balancing the SUT.

18. The mission and SA staff agreed that the next mission in July 2023 will implement improved methods for balancing the SUT. The next mission will assist the SA in balancing the SUT at current prices, considering the new structure of intermediate consumption. Work will also be done to compile the SUT in previous year's prices.

Recommended Actions:

- Conduct logical and arithmetical control of each questionnaire of the survey on intermediate consumption.
- In consultation with accountants of an enterprise, adjust the questionnaires for logical or arithmetical errors.
- Prepare the final structure of intermediate consumption for 2020.
- Balance the SUT at current prices of 2020.
- Balance The SUT at current prices of 2021.
- Collect detailed price indices for the compilation of SUT at previous year's prices.

B. NON-OBSERVED ECONOMY

19. After the implementation of quarterly GDP, improving the NOE estimates became a major priority of the SA. At this stage, the NOE can be significantly underestimated for services such as hotels and restaurants, education, health care, and other personal services. Improving the NOE compilation for these sectors may lead to a significant increase in the nominal level of GDP.

20. The SA plans to conduct sector-specific surveys aimed at in-depth observations of GDP end-use categories to improve the existing NOE estimates. These studies cover several economic activities where the level of NOE is remarkably high. Unlike the household income and expenditure survey, these specific surveys will be more focused on a few specific sectors with more detailed questions on household expenditure. During the first phase, the SA plans to conduct surveys on transportation, hotels and restaurants, health care, and other personal services. The purpose of these one-off surveys is to clarify the expenditure incurred by the household sector on purchasing these services. Detailed questions will also clarify the gross fixed capital formation involved in these economic activities.

21. Based on the obtained results, the adjusted use will be compared with the supply of the same services, and the resulting difference will be considered as an adjusted estimate of the NOE. The NOE ratios obtained in this way may be used for several years, although after a few years it is recommended to update them. The sector-specific surveys should preferably be conducted at least once in every five years.

22. High-quality questionnaires and representative sampling are important for sector-specific surveys. The sampling of households should be stratified and should include all geographical regions of the country. The next TA mission, scheduled for July 2023, will assist the SA in carrying out these tasks.

Recommended Action:

- Conduct sector-specific NOE surveys for hotels, restaurants, transport, healthcare, education, and communication services.

C. COMPILATION OF FISIM IN ACCORDANCE WITH THE 2008 SNA STANDARDS

23. The SA compiled new time series of FISIM in accordance with the 2008 SNA standards. The new time series of FISIM cover the years from 2017 to 2021. When selecting the SNA reference rate, the SA gave preference to the weighted average of the interest rates on deposits and loans, because the government did not issue long-term bonds, and the frequency of interbank deposits was not sufficient.

24. The SA divided FISIM according to the types of use and distributed FISIM for intermediate consumption by economic activities. FISIM was divided into intermediate consumption and final consumption categories including imports and exports. FISIM for household consumption was compiled from the data on household deposits and mortgage loans. FISIM in the sector of non-financial corporations is distributed by the structure of interest paid, which is obtained from the regular monthly survey on non-financial corporations. For other institutional sectors the structure of gross value added is used to distribute FISIM among various economic activities. The mission reviewed the compilation files and concluded that the results are ready for the publication.

Recommended Actions:

- Prepare a press release detailing the new estimates of FISIM and changes compared to the previously published data.
- Publish new time series of FISIM on the website.

D. OFFICIALS MET DURING THE MISSION

| Name | Institution |
|--------------------------|---|
| Mr. Bokhodir Begalov | Director, SA |
| Mr. Zokhidjan Ziyayev | Deputy Director of SA |
| Mr. Abrorali Mamadjanov | Head of Macroeconomic Indicators and National Accounts Department (NAD), SA |
| Mr. Sardor Juraev | Head of the Industrial Statistics Department, SA |
| Mr. Mukhtor Umarov | Head of the Price Statistics Department, SA |
| Mr. Muzaffar Jamolov | Head of the Construction and Investment Department, SA |
| Ms. Zukhra Mamadjanova | Head of the Input-Output Statistics Division, NAD, SA |
| Mr. Umarjon Obidov | Head of the Current Accounts Division, NAD, SA |
| Mr. Rakhmatjon Urusbayev | Head of the Satellite Accounts Division, NAD, SA |
| Mr. Farkhod Ganiev | Deputy Head of the Satellite Accounts Division, NAD, SA |
| Ms. Tatyana Kuksina | Chief Specialist, NAD, SA |
| Ms. Zioda Kamilova | Chief Specialist, NAD, SA |
| Mr. Jakhongir Mekhmonov | Chief Specialist, NAD, SA |