# Report of the Sector Review of the Price Statistics of National Statistics Office of Georgia

Final Report

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## LIST OF ABBREVIATIONS

COICOP	Classification of individual consumption by purpose	
CoP	Code of Practice	
CPI	Consumer Price Index	
DDS	Data Distribution Service	
EFTA	European Free Trade Association	
ENP	European Neighbourhood Policy	
ESCOP	European Statistics Code of Practice	
ESMS	Euro SDMX Metadata Structure	
ESS	European Statistical System	
EU	European Union	
EUROSTAT	Statistical office of the European Union	
FP	Fundamental principles of official statistics	
GA	Global Assessment	
GDP	Gross Domestic Product	
GEOSTAT	National Statistics Office of Georgia	
GSBPM	Generic Statistical Business Process Model	
GSS	Statistical System of Republic of Georgia	
HBS	Household Budget Survey	
HICP	Harmonised Index of Consumer Prices	
HPI	Housing Price Index	
IPPI	Industrial Producer Price Index	
IT	Information Technology	
LOS	Law of Statistics	
NA	National Accounts	
NGO	Non-governmental organisations	
NSDS	National Strategy for Development of Official Statistics	
NSI	National Statistics Institute	
ООН	Owner-Occupied Housing	
RPPI	Residential property price index	
SAQ	Self-assessment questionnaire	
SPPI	Services producer price index	
UNECE	United Nations Economic Commission for Europe	

# Preface

- 1. Sector reviews are specifically tailored to selected partner countries that aim at aligning important sectors of statistics with European standards. To do so, an assessment of the administrative and technical capacities, the statistical production processes and the medium- and long-term planning within the sector takes place and a list of recommendations to improve the reviewed sector is proposed. The Sector Review of Price Statistics of the National Statistics Office of Georgia (GEOSTAT) was undertaken within the framework of the EUROSTAT funded project "Global assessments, peer reviews and sector reviews for the ENP countries" to analyse GEOSTAT's statistical production processes in Price Statistics. The Sector Review Mission took place from 6–9 December 2021 in Tbilisi.
- 2. The review process was initiated by EUROSTAT at the request of GEOSTAT. The company DevStat – Statistical Consulting Services S.L., under contract with EUROSTAT, was responsible for organising all activities and tasks relating to the Sector Review. A self-assessment questionnaire (SAQ) was developed to raise awareness of the strengths of the GEOSTAT Prices Statistics production process and of the areas where improvements are still needed to align the sector of Price Statistics with European Statistical Standards. The SAQ was filled by GEOSTAT's experts and served as the primary instrument for the identification of relevant improvement areas prior to the mission and helped the team to focus discussions on the most prominent issues during the mission. Members of GEOSTAT's price statistical unit were the mission's main discussion partners throughout the mission, namely the head of the price statistics department and the head of the consumer price statistics division. Additional meetings were organised with the Executive Director and his deputy Executive Director, the head of Strategic Planning, Coordination and Communication department as well as the head and members of the Methodology and Quality Management division. Furthermore, several online discussions were held with members of GEOSTAT's Board of Statistics and representatives of users and stakeholders of price statistics (academia, business media, ministries).
- 3. In the European Statistical System, the compliance of National Statistical Institutes (NSIs) with European standards is assessed using principles and indicators set by the European Statistics Code of Practice (ESCoP) and guided by the European Quality Assurance Framework (EQAF). Accordingly, the SAQ and mission agenda contained questions and topics to appropriately assess GEOSTAT's strengths, weaknesses, good practices and follow-up in Price Statistics in each of the three main sections of the CoP: the institutional environment (principles 1 to 6 of the CoP), the statistical processes (principles 7 to10) and the statistical output (principles 11 to 15 of the CoP). This report intends to raise awareness on the strengths of the GEOSTAT Prices Statistics production process and on the areas where improvement is still needed to align the sector of Price Statistics with European Statistical Standards.

# **Executive summary**

- 4. GEOSTAT has significantly improved the overall quality of its statistical processes and products during the last 10 years. The institution enjoys users' trust and carries out its operations independently and objectively based on an adequate legal mandate. Both recent and currently on-going revision processes of the Law of Statistics have been aiming at further clarifying the roles and responsibilities of different bodies within the Georgian Statistical System, as well as ensuring continued data access to administrative and other new data sources envisioned to replace traditional survey-based data.
- 5. The National Strategy for Development of Statistics approved in 2020 directly addresses most of the statistical principles in the European Statistics Code of Practice (ESCoP) assessed in this review process. The commitment to quality and meeting international best practices throughout the organisation is solidified into the ambitious strategy and its successful implementation along the current two-year work plan will elevate GEOSTAT compliance with European standards to a high level.
- 6. In its outreach efforts GEOSTAT regularly meets users to publicise and inform them on current and upcoming statistics and their use. This has been a successful approach, but creation of an additional technical forum to discuss emerging needs and latest methodological developments for key statistics, like the Consumer Price Index (CPI), at a technical level and consisting of key stakeholders and independent experts would further enhance both the relevance and perceived objectivity of GEOSTAT.
- 7. Securing sufficient resources has always been an issue in the past with rapid staff turnover and dated Information Technology (IT) infrastructure, along with uncertainty regarding longer-term financial sustainability. The current strategy aims at addressing capacity development more holistically and recently announced donor support helps with upgrading the IT systems at GEOSTAT in the medium term. For the price statistics department, adequate quality and sufficient level of staff in terms of technical capacity need to be commensurate with the rapidly changing data landscape, and the allocation of resources between central office and field work may need adjusting in the light of new centralised data sources.
- 8. All main areas of the CPI/HICP (Harmonised Index of Consumer Prices) concept and procedures (coverage, price concepts and collection procedures, index formulae and compilation procedures, weight compilation, sampling, quality adjustments) meet in general international standards on the compilation of consumer prices. On-going projects to use alternative data sources, such as web-scraped and scanner data, will ensure an efficient use of resources and modernity of the CPI/HICP compilation procedure.
- 9. To fully comply with European standards, some generally minor methodological issues require clarifying or changing. In particular, GEOSTAT should ensure inclusion of an appropriate HICP conceptual basis including: relevant expenditure by visitors; further improve quality adjustment and imputation methods; adapt price collection process for items with volatile prices; assess the importance of e-commerce; and introduce internet purchases to the HICP and national CPI.
- 10. GEOSTAT price statistics are broadly relevant for user needs. There is clear evidence of user satisfaction and engagement with users both electronically and through various events organised for different user groups.
- 11. In general, GEOSTAT disseminates CPI in line with international standards. Timeliness and punctuality of the CPI release are excellent and are also praised by key users. The statistical outputs related to price statistics are of good quality, generally well implemented, accounting for the needs of different users,

and meeting current user requirements. They are released in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance. Notably, the GEOSTAT website and the GEOSTAT APP for Android and iPhone are state of the art concerning design, user-orientation and alternative data dissemination.

12. The mission met with several members of the Board of GEOSTAT, as well as with users and stakeholders from the media, academia, business and ministries. Their general feedback was that GEOSTAT has become a reliable and trusted data provider and that in the area of price statistics questions and additional information requests are eagerly answered. Some stakeholders see room for improvement regarding the representativeness of the basket of items and methodological treatment of certain price developments. However, overall users are satisfied with GEOSTAT's price statistics.

## 1. Assessment of results

## **1.1 Part A – Institutional environment**

- 13. The adherence of GEOSTAT to international best practices in official statistics is widely acknowledged and there are no signs or a perception to the contrary of the institution not observing these practices. The Law of Georgia on Official Statistics, (Nr. 3584 of 1 May 2015) Law of Statistics (LOS), defines the concepts, purpose and principles of official statistics, and determines the legal grounds for keeping statistics, and for storing and disseminating information obtained as a result of the keeping of statistics, and for carrying out the general census of population, and determines the system and functions of the authorities responsible for keeping official statistics. It sets the conditions of production and dissemination of statistics by official producers, GEOSTAT, the National Bank of Georgia and the Ministry of Finance within their respective competences.
- 14. **Basic principles of official statistics,** closely following the United Nations Fundamental Principles of Official Statistics, **are cemented in the LOS**. The legislation and associated Charter of the National Statistics Office of Georgia and Price Statistics Department of GEOSTAT for price statistics compilation were further strengthened by the most current amendment to the LOS in 2018 to more explicitly account for these basic principles. Another draft to amend the LOS has been officially forwarded to the Government for comment, bringing onboard further clarifying legislative recommendations from the Eurostat 2018–2019 Global Assessment (GA) of Statistical System of the Republic of Georgia (GSS).
- 15. In order to assess the GSS' compliance with ESCoP, the GA of the GSS was undertaken by EUROSTAT, the European Free Trade Association (EFTA), and the United Nations Economic Commission for Europe (UNECE) in 2019. The aim of conducting the GA was to provide an in-depth and comprehensive analysis of the institutional, organisational and technical capacity of the country to produce official statistics that comply with international and European guidelines and recommendations, including the United Nations Fundamental Principles of Official Statistics (FPs) and ESCoP.
- 16. The recommendations of the GA were highly influential in the development of the National Strategy for Development of Official Statistics (NSDS) of Georgia later in 2019. The NSDS relies heavily on the European Statistics Code of Practice and sets forth three very ambitious strategic goals, defined by cascading structure from overall objectives to individual activities. The goals are:
  - produce high-quality official statistics based on user needs;
  - build effective, modern and sustainable statistical production processes;

- build the statistical infrastructure and capacity development.
- 17. The NSDS explicitly addresses all the principles of ESCoP under the Institutional Environment at the institution level and brings more concrete actions to the level of individual departments or statistics. The GEOSTAT Board approved NSDS has been further translated to the current two-year work plan which, if successfully carried out by GEOSTAT, will elevate GEOSTAT to among developed National Statistical Institutions in line with international best practices.

#### **1.1.1 Principle 2: Mandate for data collection**

- 18. The LOS and the recently introduced partnership in utilising some administrative data sources in compilation of price statistics provide an adequate mandate for data collection. In particular, recently strengthened data collection provisions for traditional price data collection provide GEOSTAT with better access to administrative and private data sources.
- 19. Number of administrative sources are used either in the price collection of centralised fees and tariffs or in estimating further breakdown of CPI weight structure at more detailed level. Access to non-public administrative details has reportedly not been an issue, and pilot projects on utilisation of scanner and web-scraped data have got successfully under way.
- 20. In order to reduce and prevent non-response, **GEOSTAT systematically conducts meetings with users and large data providers** in order to discuss the importance of statistical surveys and the quality of the information. Additionally, GEOSTAT offers a 30% discount on requested data for those respondents (legal entities) that participate in regular surveys. Moreover, a number of "best" respondent companies are awarded annually with a certificate.
- 21. GEOSTAT's informative website (<u>https://www.geostat.ge/ka</u>), also widely praised by users, provides all documentation related to the organisations' legal basis, its policies, administrative, organisational and other rules governing GEOSTAT and the GSS. With regard to design and user interface, the official site is of very good quality and facilitates access to relevant information regarding GEOSTAT data collection.
- 22. However, in the changing data landscape and implementing its strategy of wholesale modernisation of data sources and compilation methods, GEOSTAT will likely be more critically dependent on individual new private data providers and sources.
- 23. Access to these new data may prove to require more stringent legislative backing to ensure sustainable information flow for the compilation of CPI and other critical official statistics in the near future.
- 24. Similarly, in expanding the price statistics coverage to new areas, GEOSTAT's primary coordinator role within the GSS may require a stronger formalised basis. Such strengthening could better harness public and some private administrative processes for statistical purposes and would further improve coordination and innovation among all producers of official statistics, actively championed by GEOSTAT at the centre of GSS.

#### **1.1.2** Principle 3: Adequacy of resources

- 25. The NSDS and GEOSTAT work programme clearly emphasise the importance of ensuring adequate resources. The strategy's core objectives point to sustainable IT resources as well as staffing and human resource management, and the work plan envisions these areas to be addressed in a coordinated manner.
- 26. **Overall, the staff level and overall budget for the Price Statistics Department are sufficient to carry out current tasks.** The 12 full-time equivalent staff, of which two are IT personnel, in addition to the price collectors under regional offices, seem sufficient but continued high turnover of new staff hinders the full utilisation of those resources. Similarly, the expanding coverage of price statistics without corresponding increase of resources is likely not sustainable. The departmental budget, while limited in absolute Euro terms, is roughly in line with European countries relative to GDP per capita.
- 27. The Price Statistics department has expanded its range of products in recent years while the staff and IT resources have not essentially changed. To fully implement the Residential Property Price Index, and the set of Service Producer Price Indices, among others, while also compiling the HICP along with the national CPI and other regularly published indices will likely require some additional resources in addition to the efficiency gains achieved by current staff alone. In particular, modernising the data collection process will lead to a different allocation of both between central office staff and regional price collectors, as well as between central office staff with higher-level IT skill and those with mainly subject matter specific knowledge. A forward-looking capacity development plan could alleviate skills bottlenecks in carrying out the GEOSTAT development agenda in Price Statistics. Currently, GEOSTAT doesn't have personal training or development plans, for example, the job descriptions are too general in addressing specific future requirements.
- 28. It will be imperative for GEOSTAT to adhere to the work programme related to overall resource management, and for stakeholders to assist it along the way. The NSDS is a very ambitious endeavour and to successfully implement it will likely require additional resources in both quantity and quality. Ensuring relevant staff capacity while transforming data collection and compilation processes will be particularly critical.

## **1.1.3** Principle 5: Commitment to quality

- 29. Similar to resource adequacy, the **NSDS explicitly states quality as a central objective**. The strategy and implementing work plan include GEOSTAT level programmes on quality self-assessment, an integrated quality management system and enhancement of current Quality Policy. These on-going, still to be fully implemented frameworks provide the basis for enhancement and monitoring of overall quality and on which more detailed statistics-specific quality indicators can be developed.
- 30. Various quality aspects of price statistics are regularly monitored and developed further by departments of Strategic Planning, Coordination and Communication, and Internal Audit which both report on distinct aspects of overall quality. To coordinate the quality monitoring and develop it further, a high-level working group on quality management systems was established, with further internal plans to transform it into a permanent unit of GEOSTAT.
- 31. Part of the GEOSTAT overall quality initiatives is **detailed and centralised documentation of statistical processes**. For the Price Statistics Department, this meant creating detailed process

descriptions regarding the monthly collection, compilation and dissemination cycle, the roles individual staff take within the cycle and actions required for specific cases. The documentation includes instructions for price collectors and detailed descriptions of the compilation methodology.

- 32. Further quality improvements implemented in recent years include the following measures:
  - replacement of paper questionnaires by tablet PCs;
  - improvement of imputation techniques for seasonal products;
  - improvement of price collection for certain products (second-hand cars, air tickets, package holidays);
  - introducing modern price collection methods web-scraping and scanner data (in progress).

## **1.1.4 Principle 6: Impartiality and objectivity**

- 33. **GEOSTAT's role as an independent and professionally impartial state institution has been largely** gained within the last 10 years. The users of GEOSTAT products, the Executive Board of GEOSTAT and other stakeholders that the mission interacted with during the mission largely agree on the significant reputational gains that have taken place. GEOSTAT enjoys broad user approval and the professionalism in setting its statistical methodologies is generally not questioned.
- 34. Again, **GEOSTAT strategy explicitly calls for observance of existing international best practices** in following methodologies of statistical production. This is enforced by close collaboration with international bodies that are custodians of setting methodological standards, like the International Monetary Fund, European Commission, etc. Meetings with key external stakeholders and separate discussions with some GEOSTAT Board members confirm that they support the GEOSTAT approach to maintaining impartiality and objectivity by closely working with international organisations.
- 35. At least in the area of price statistics, GEOSTAT relies on more general than specific user consultation when it comes to possible changes in methodological details. To better address the needs of domestic users as well as following international best practices, key stakeholders' technical experts could be involved in the preparation of methodological changes, evaluating their impact for users and identifying earning needs. Formalising this technical level collaboration would further enhance GEOSTAT objectivity.
- 36. **GEOSTAT has gained a good reputation in recent years**. In discussion with some of the Board members, the impartiality and objectivity of GEOSTAT were not questioned in any way but the role of the Board was still seen as in need of further clarification, as the GEOSTAT Board still currently "reviews and approves" major methodological changes, including those of the CPI. To retain the trust it has gained, GEOSTAT needs to actively ensure that perceptions of impartiality and objectivity are maintained during the transition to new data sources and modern data collection methods. As also recommended by the GA and internally already processed and submitted for government comments, the role of the GEOSTAT Board should remove the task of methodological approvals.

## **1.2 Part B – Statistical processes**

37. The GEOSTAT Price Statistics department produces a CPI generally in line with international standards and is well prepared to compile the HICP in line with EU-legislation. All main areas of CPI/HICP concept and procedures (coverage, price concepts and collection procedures, index formulae and compilation procedures, weight compilation, sampling, quality adjustments) meet, in general, international standards on the compilation of consumer prices. On-going projects to use alternative data sources such as web-scraped and scanner data will ensure an efficient use of resources and modernity of the CPI/HICP compilation procedure. Furthermore, the existing procedures and tools in place to collect prices, monitor price collection and perform primary and secondary data cleaning processes are of very high standard.

## 1.2.1 Principles 7 and 8: Sound methodology and Procedures

- 38. There is a standard methodological document in place that contains guidelines for statistical operations and describes the methodological framework in place. This document is internally called "process description". It has been created for price statistics purposes individually and describes in detail the whole process of data collection, logical control, index calculation and dissemination, including responsibilities of each staff member, the order and deadlines of each operation. An additional document details all the tasks of the production cycle with all staff members being assigned to explicit tasks.
- 39. Methodological documentation containing all pertinent information on metadata (concepts, methods, classifications of the price statistics process) is published. There are technical manuals for all price indices which are approved by the Board of GEOSTAT and published on the website. The current technical manual for the CPI has an approval date by the Board dating February 15, 2013. However, since 2013 several methodological changes have been introduced about which the Board has been informed and has approved, respectively. Metadata in IMF Special Data Dissemination Standard (SDDS) and Euro SDMX Metadata Structure (ESMS) formats is publicly available on the website.
- 40. There are contacts between the price statistics department and main users. These contacts usually serve the purpose of discussing unexpected index behaviour. Users report that GEOSTAT's price statistics department promptly reacts to any enquiries. A framework to identify and define uses for CPI data, to inform about methodological development and to provide feedback between stakeholders is currently not in place. Nevertheless, user needs are, when communicated with GEOSTAT, taken seriously. For example, the core inflation rate, published by GEOSTAT, has been developed and calculated at the request and with the participation of the Central Bank.
- 41. **Meetings, workshops and study courses are attended at international level leading to frequently introduced methodological improvements.** GEOSTAT's head of price statistics regularly attends relevant events at international level. Most methodological input to improve the existing methodology and implement the best international standards comes from these meetings and courses. In the recent past, since 2018, there have been major (e.g., introduction of tablets for price collection) and minor (e.g., changes to flight tickets and package holidays) methodological changes every year.
- 42. Recruitments are prepared by the HR division and mainly based on requirements set by the price statistics department. Training courses are planned on an ad hoc basis taking into account needs and staff availability. A specific strategy to improve the department's staff ability to handle quantitative data analyses is not yet in place. Vocational training on price statistical issues takes place when the

necessity for a training has been identified. Job vacancies for senior price statisticians do not entail specific quantitative data analytical skills.

- 43. **GEOSTAT's overall methodological framework used to compile consumer price indices follows international standards in general.** Some adjustments are necessary to be in line with standards set by European legislation and recommendations to compile an HICP.
- 44. **Consumer price indices cover all relevant expenditures of households.** Conceptually, only consumption of residents is covered. In light of the plans to introduce the HICP that also covers non-resident consumption on the economic territory, there is a need to develop a distinctive concept of coverage.
- 45. Weights are updated annually with a weight reference period of t-2 for the CPI. For the compilation of an HICP, measures are planned to be introduced to (price) update the weights to make them representative for t-1 and December t-1, respectively, as foreseen by Article 3 of the HICP Implementing Act.
  - National Accounts (NA) data of period t-2 is the main source to obtain ECOICOP sub-class expenditures weight. There is no documented index concept and work agreement with the National Accounts department in place which clarifies whether the NA data includes expenditures by nonresidents on the territory of Georgia and whether expenditures by residents abroad is included, respectively.
  - Household budget survey (HBS) data provides complementing information to define the shares of elementary aggregates. GEOSTAT's HBS is a continuous survey that collects expenditure information throughout the year. Compared to other NSIs which conduct an HBS less frequently (often every 5–6 years) but with a bigger sample, the Georgian HBS results are more up-to-date but less robust, leading to relatively volatile weights for elementary aggregates in some expenditure groups. For the CPI the use of aggregated HBS expenditure data that refers to a longer time period may be a feasible option to reduce weight volatility. For HICP weight compilation, the yearly HBS is an optimal data source as it allows for frequent basket and weights updates as stipulated by HICP legislation (Article 3 of Implementing Regulation).
  - If further information for more detailed expenditure shares of sub-classes and product descriptions is required, other adequate sources are used (e.g., information on pharmacies' top products per category, registered vehicle numbers from the police department, telecommunication data from the Georgian National Communication Commission, etc.).
  - Import data is being used for defining products and their basket weights for a variety of mostly imported product groups (clothing, electric appliances). These data may or may not be representative for price household consumption and might suffer from coverage biases as it also contains expenditures for intermediate consumption as well as final consumption of government, NGOs and enterprises.

# 46. Sampling procedures have several stages (geographic, outlet, product and time) and are usually purposive which is common in the area of price statistics.

- Prices are collected in the main cities of six regions representing more than 80% of private consumption taking place in Georgia.

- Samples of outlets are reviewed every year. The business register is used and a sequential
  probability by size sampling method is applied. The sample of brands is usually updated twice per
  year.
- Products/product groups with a share of more than one part per thousand are represented in the basket of items. Usually, HBS is used to identify representative products and define elementary aggregates. Internal business data based on actual transactions has not commonly been used for this purpose. As market concentration in different retail sectors is advancing and the provision of scanner data becomes mandatory, company data should become more and more important for detailed weightings and sampling and definition of elementary aggregates.
- Except for educational fees, price data collection takes place on a monthly basis.
- 47. Replacements are performed when a product brand is deemed to have lost representativity and when items are temporarily missing for three consecutive months. A replacement of items after being temporarily missing for two months is required by EU legislation (Article 9 of the HICP Implementing Act).
- 48. Seasonal products are defined and imputed when they are out-of-season. GEOSTAT considers a product as seasonal if: 1) it is not available on the market during certain periods of the year; and 2) if it is available on the market throughout the year, but its price fluctuates sharply across the seasons of the year. Prices of seasonal items are registered during the corresponding season of the year. In other seasons, a price index is calculated using imputation techniques, in particular, the overall mean imputation. If the last price in the season shows a significant decrease, it is replaced with the "average season" price, which is then imputed until the item re-appears.
- 49. New products are introduced to the index and unrepresentative products are discarded through the annual basket update.
- 50. CPI classification is consistent with COICOP 1999 and preparations are already on-going to change to COICOP 2018 in a couple of years.
- 51. **Upper-level indices are compiled using a Laspeyres-type index.** Lower-level elementary indices are constructed to include groups of relatively homogeneous goods and services (i.e., similar in characteristics, content, price or price change) and are computed using a Jevons price index (geometric mean).
- 52. GEOSTAT established a Methodology Department in 2019 to improve and enhance the statistical processes across the institution. At the moment, this department has a focus on sound documentation of all procedures in place and on mapping statistical production systems with GSBPM. However, no other unit within GEOSTAT (other than the price statistics department) monitors the implementation and validates the results of the most important processes for sampling, data collection, data editing and validation, data codification/classification. The task of the methodological department should in the medium term include the support and monitoring of methodological improvements and correctness of applied procedures.
- 53. Prices are collected from the 10th to the 20th of each month and the observed prices for goods and services are included in the CPI according to principles that are, except for volatile prices, in line with the requirements set by Article 8 of the HICP legislation. Volatile prices are not collected more than once per month in the same outlet as stipulated by Article 8 (5) of the implementing Act. Instead,

price collection of volatile prices is organised throughout the price collection period of 11 days (from the 10th to the 20th of a month) but in different outlets. Moreover, GEOSTAT considers prices that change due to sales and promotion pricing as volatile (e.g., clothing and electronics) while the idea of the treatment of volatile prices in the HICP rather targeted product groups that are driven by demand and offer fluctuations (fruits and vegetables, fresh fish, flights).

- 54. **Missing prices are imputed with the price development of available products in the corresponding elementary aggregate.** As required by Article 9 of the Implementing Act, missing prices are not imputed for longer than two months in general. GEOSTAT monitors the number of missing products (=number of imputations) each month. Some non-seasonal product groups have an average share of missing prices that is higher than 40% (e.g., new cars and mobile telephone services), indicating that article descriptions for such items are very detailed and strictly adhered to by price collectors. This is a sign of the high quality of the price collection procedures. Nevertheless, some compromise needs to be found to keep the price sample representative over time and the share of missing prices should be reduced. The introduction of a more explicit quality adjustment procedure supports this necessary change. GEOSTAT currently analyses the use of web-scraped data for 'used cars' and applies hedonic quality adjustment methods in case of model replacements.
- 55. Administrative data sources are used for CPI purposes, especially for the compilation of weights and to a minor degree for price collection. The use of administrative data sources is a strategic objective for GEOSTAT and the price statistics department is monitoring existing sources. Administrative data is verified whether it meets price statistical standards regarding coverage, sample and price concept. In the 2020 basket of items, administrative data was used for price collection in six five-digit ECOICOP categories, mainly for household energy, services for the dwelling and public transportation, representing about 8% of the total weight. GEOSTATs plans to assume national data stewardship for administrative data should facilitate the use of administrative data and support an increase of share in the price collection for the CPI.
- 56. **Prices are collected by GEOSTAT employees in the central and regional offices.** There are 10 employees at the central offices (5 of them work exclusively on the CPI) and 25 price collectors in the six regional offices. Most of them work for GEOSTAT in permanent positions and have been collecting prices for many years. This allows for reliable field work results and a high level of qualification, skill and training. Besides price collection for the CPI, regional employees also support the price collection for the Producer Price index.
- 57. All price data is immediately entered into a database through electronic devices/tablets in the field or by PC at the office, providing for a high level of digitalisation and allowing the application of immediate validation procedures in the moment of price collection. Central office staff, each of them responsible for a specific city, analyse the incoming price data and provide comments and feedback in case of data problems.
- 58. An overlap method is the default quality adjustment procedure in case of a necessary product replacement. The applied method essentially assumes that the price difference between the two products can be considered to be the value of the quality difference. It is known in price statistical manuals that such an overlap method may lead to an index drift under certain conditions (in particular when items have to be replaced after going out of the market with a reduced sales price). It should therefore not be a standard procedure according to Article 11.2 of the HICP Implementing Act. The high sampling

precision of GEOSTAT's price collection procedures increases the amount of necessary replacement and therefore the risk of chain drift. GEOSTAT is aware of this risk and has increased the use of "direct comparison" in product segments with many replacements and a large number of essentially equivalent products in terms of quality. In addition, GEOSTAT investigates the use of explicit quality adjustment procedures, particularly in product groups for which new (larger) data sources are available.

- 59. **GEOSTAT has been continuously working on measures to improve efficiency of data collection and index quality.** Notably, this has involved the implementation of tablet PCs for CPI surveys, development of modern data collection methods (web-scraping and scanner data) and the optimisation of price collection in terms of geographical allocation of sampled outlets. Along with the implementation of scanner data, outlet weights are also planned to be introduced as an additional weight level. Large new data sources are usually managed and processed using the statistical software R.
- 60. At the moment the importance of internet purchases and e-commerce is not systematically assessed. Weights and Prices of the CPI do not explicitly represent e-commerce transactions and retail in Georgia as it is currently still deemed insignificant for the overall consumption of services and goods.

## 1.2.2 Principles 9 and 10: Non-excessive burden on respondents and Cost effectiveness

- 61. Several GEOSTAT Price Department measures have reduced the response burden on companies in the last couple of years, such as the increased use of administrative data and taking into account national pricing policies. The introduction of price collections with tablets and digitalisation of price data transmission and validation have improved cost effectiveness. A relevant indicator for improving cost effectiveness has been the capability of the price statistics department to develop and produce new price statistics in the last couple of years (residential property prices and producer price indices for several service sectors) without significant increases of staff resources.
- 62. **GEOSTAT currently does not measure the response burden for respondents in statistical surveys regularly**, including price statistics. However, the following measures taken in recent years are considered to have reduced the response burden.
  - Administrative data is increasingly used during the basket update and weight update periods.
  - Centralised price collection is implemented where possible.
  - In case of confirmed national pricing by a retail chain, price collection takes place in only one outlet (instead of price collection in several outlets in different regions).
  - Future use of web-scraped data and scanner data will reduce the overall response burden and workload of price collectors.
- 63. There have been measures taken in recent years to increase efficiency of data collection and data analysis. Specifically, this has involved implementation of tablet PCs for CPI surveys, training for the price collectors, development of modern data collection methods (web-scraping and scanner data), and optimisation of price collection in terms of geographical allocation of sampled outlets. Overall, the workload of regional price collectors has been reduced while the workload of the central price collection and the employees of the central office has increased. Notably, the improved effectiveness allowed for the development of new price indices (HPI, SPPIs) without a significant increase of resources. In case of replacements of regional price collection with (central) new data sources, there are currently no specific plans about the use of free resources.

## **1.3 Part C – Statistical output**

64. In general, **GEOSTAT disseminates CPI in line with international standards**. Timeliness and punctuality of the CPI release are excellent and also praised by key users. Users are informed about all methodological changes through press releases and updates of methodological documentation and in terms of user interface and technology, the state-of-the-art GEOSTAT.

## **1.3.1** Principle 11: Relevance

- 65. There is clear evidence of user satisfaction and engagement of users with respect to GEOSTAT statistics both electronically and through various events organised for different user groups. Through these engagements, special news releases, press conferences, as well as the Board and Advisory Panel, both composed also of key users, GEOSTAT tries to ensure that user needs are met. The strategy and work plan also call for a regular comprehensive user satisfaction survey to be implemented every two years and to be used for more systematic analysis of user needs.
- 66. **GEOSTAT regularly monitors mass media and analyses the feedback from users**. Sometimes explanations are made about the content/use of certain statistics. Moreover, GEOSTAT receives media reports on a monthly basis, which reflects the users' opinions/reactions.
- 67. **GEOSTAT published an advance release calendar** of its statistical products. It also conducted a User Satisfaction Survey in 2019 and evaluated the number of website visits and data requests. According to the survey, price statistics was in 3rd place in the list of most-demanded information.
- 68. Guidelines and additional information on use of price indices are also provided. These guidelines are published in the CPI technical manual and user's instructions for the CPI calculator<sup>1</sup> and the Personal Inflation Calculator<sup>2</sup>. In addition, GEOSTAT created an educational video about the inflation calculation. It is published on the methodology page<sup>3</sup> (in Georgian language only). Additionally, explanations are given on request to different users via phone, email, conferences and public lectures.
- 69. To better serve the users, contact information of the Price Statistics Department head, as well as the CPI and PPI division heads are publicly available on the website<sup>4</sup>. The statistical outputs are also adjusted at times for the same objective. For example, in 2020, the group and sub-group basket weights were published in Excel format. Before that, only group weights in pdf format were available, but after numerous requests, more detailed data was published in a more convenient format.
- 70. GEOSTAT produces several additional price statistics that are required by EU legislation, namely, a residential property price index (RPPI), Industrial producer price index (IPPI), construction price index, services producer price indices (SPPI, currently for three service sectors), as well as other short-term business statistics. These indices provide a sound statistical basis to cover price information at the most relevant levels of the Georgian economy, as well as other relevant indicators on emerging trends in the Georgian economy.
- 71. GEOSTAT has the intention to develop and produce additional price statistics indicators. This will further align its price statistical system with EU standards. There are concrete plans to compile and

<sup>&</sup>lt;sup>1</sup> <u>https://www.geostat.ge/cpi/?lang=en</u>

<sup>&</sup>lt;sup>2</sup> <u>https://www.geostat.ge/personalinflation/?lang=en</u>

<sup>&</sup>lt;sup>3</sup> <u>https://www.geostat.ge/en/modules/categories/122/methodologia-price-statistics</u>

<sup>&</sup>lt;sup>4</sup> https://www.geostat.ge/en/page/fasebis-statistikis-departamenti

publish a Harmonised index of consumer prices (HICP) in 2022; the HICP at constant taxes should follow suit. An index to cover price developments of Owner-Occupied Housing (OOH) would be a major methodological undertaking and will require substantial time and resources, in particular if GEOSTAT decides to implement the net acquisition approach as requested by EU legislation for OOH and the house price index.

- 72. GEOSTAT's ongoing work to develop and produce services producer price indices (SPPI) coincides with the current working plans of many other NSIs within the ESS that are required by the Framework regulation for European Business Statistics to provide a comprehensive price coverage of most service sectors. This is an opportunity for GEOSTAT to take advantage of the many reports and studies currently written about the compilation of SPPIs in the ESS.
- 73. GEOSTAT's current efforts go a long way to ensuring and monitoring the user satisfaction and meeting the ESCoP principle on relevance. However, there is no specific regular forum for key price statistics users and experts in the area to express their emerging needs and discuss possible improvements in existing methodology. Establishment of such a forum would enable interaction at a more technical level and would also enhance the commitment to principles of objectivity and quality. Additionally, methodological collaboration with experts from local institutions public, private and academic could serve as a potential source for resources in terms of shared development projects and as a catalyst for introduction of new statistical sources, methods and techniques within GEOSTAT price statistics.

## 1.3.2 Principle 12: Accuracy and reliability

- 74. The content of existing data validation process is generally of good quality. While some of the validation process takes place outside the compilation software, the level and detail of analysis to identify suspect movement is of good quality.
- 75. The elementary and group indices are compared across the six regions and significant deviations from the average rate are checked. The dynamics of average prices and detailed indices are analysed using automated Excel templates and irrespective of the number of comparable prices registered in each city, an elementary aggregate index is considered to be reliable if it passes the conducted validation checks.
- 76. GEOSTAT intends to start disseminating an HICP along the national CPI from February 2022. The conceptual differences between the two indices and some technical processes are still being discussed and worked on, respectively. All relevant household consumption expenditure taking place within Georgian borders, including the visitors' expenditures, needs to be covered in the HICP. This needs to be clearly explained to the users.

## **1.3.3** Principle 13: Timeliness and punctuality

## 77. GEOSTAT's releases price statistics in a timely and punctual manner.

- 78. The timeliness and punctuality of GEOSTAT's price statistics has been highlighted by user feedback. Notably, CPI publication takes place earlier than publications of most European countries. GEOSTAT always publishes the CPI figures between the 2nd and the 4th day of the month that follows the reporting month.
- 79. Standard daily time of publication for all GEOSTAT statistics is 11:00 AM and a release calendar is published on the website.

## 1.3.4 Principle 14: Coherence and comparability

- 80. **GEOSTAT's consumer price index is coherent with other statistics and consistent over time** using internationally established standards, definitions and classification.
- 81. Notably, users are being informed about all methodological changes that have an impact on index series through press releases and updates of methodological documentation. A couple of quality indicators, such as the number of missing prices, are internally monitored during the production process. Secondary data sources are verified regarding whether their coverage, frequency, aggregation and price concept is coherent with standards for CPI data input.

#### **1.3.5** Principle 15: Accessibility and clarity

- 82. **GEOSTAT's price statistics are presented in a clear and understandable form**. They are released in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance. Notably, GEOSTAT's website and the GEOSTAT APP for Android and iPhone are state of the art concerning design, user-orientation and alternative data dissemination and can be regarded as currently one of the best websites of a statistical office in Europe.
- 83. There are few areas where improvements to the way price statistics are presented could be made to better meet users' needs. In particular, the level of publicly disseminated detail in CPI series could be increased, as this was an area also brought forward by the users. The following recommendations were discussed with the Price Statistics Department, and largely agreed upon.

## 2. Recommendations

The recommendations in comparison with the *acquis communautaire* on price statistics and European and international manuals, guidelines and recommendations are the following:

## 2.1 Principle 2: Mandate for data collection

- a. Ensure the data access provisions in the Statistics Law and collaboration practices with other stakeholders are kept up-to-date in the changing data landscape. As the critical issues related to data access will fundamentally change the data access, provision of legislation (law of statistics) should be detailed enough to facilitate access to new data sources such as administrative, scanner and web-scraped data.
- b. **Further strengthen GEOSTAT's role as a data steward**. In collaboration with other official statistic producers, organise data collection activities of other public entities to enable better use of administrative data for statistical purposes within the entire Georgian Statistical System.

## 2.2 Principle 3: Adequacy of resources

- c. Ensure that the resources for the ambitious development strategy (NSDS) and corresponding work programme are fully in place in the medium term. The current allocation of overall resources, in the light of significantly changing work requirements, is very tight for successfully implementing the full programme.
- d. Under the umbrella of the existing capacity development framework, **create a sustainable departmentspecific capacity plan**. The traditional price collectors' role, while very relevant for the foreseeable future, will likely diminish during the transition to new data sources and compilation techniques that will require new skill sets mixing ICT and subject-matter expertise. The plan could include personal development plans, position and system descriptions that are commensurate with the work programme. Further, ensure that specific IT requirements for the department get to be addressed in the GEOSTAT IT strategy and IT policy.

## **2.3 Principle 5: Commitment to quality**

e. Within the currently implemented framework of quality management, identify more specific actions for the Price Statistics Department to implement. Translate the higher-level quality indicators to more tangible, price statistics specific ones that can be monitored and reported as part of the GEOSTAT Quality Reporting process.

## 2.4 Principle 6: Impartiality and objectivity

- f. **Further clarify the role of GEOSTAT Board in reviewing and approving methodological changes** in individual statistics.
- g. Ensure that the mandated quality dimensions are enforced in practice:
  - Actively seek stakeholders' relevant knowledge in scientific and international best practices in determining methodological changes.
  - For CPI or price statistics specific, consider formalising this in the form of a CPI Advisory Panel.

## 2.5 Principle 7 and 8: Sound methodology and Procedures

- h. **Investigate complementary data sources for detailed weights**. The aim should be to verify more closely the quality of import data of product groups (e.g., market information from retail associations, retail company data on market shares of product segments and top selling brands/products).
- i. **Clarify the conceptual differences in terms of expenditure coverage** of the national CPI in comparison to the (planned) HICP.
  - The HICP shall cover household final monetary consumption expenditures as defined by Regulation (EU) 2016/792 of the European Parliament and of the Council (Article 2 (20)) which includes nonresident household consumption.
  - Ensure that the conceptual and other methodological differences are clear and needed.
  - Document, explain and publish the differences between CPI and HICP concepts with regard to scope, determination of weights, and compilation techniques.
- j. Revise imputation procedures of seasonal products while taking into account that:
  - counter-seasonal imputation is recommended for products and services with distinct seasonal patterns (such as winter and summer clothes, and summer and winter holiday destinations);
  - all-seasonal imputation is recommended for products with less distinctive seasonal patterns and/or products in ECOICOP with few or no other seasonal products (e.g., fruits, vegetables, fish) (see Article 14 of Commission Implementing Regulation (EU) 2020/1148<sup>5</sup>; see also 7.1.5.3 of the HICP Manual<sup>6</sup>).
- k. **Identify volatile prices and adapt price collection procedures** so that these prices are collected more than once per month (see Article 8.5 of Commission Implementing Regulation (EU) 2020/1148; see also 4.4.6 of the HICP Manual).
- 1. **Continue with existing efforts to improve quality adjustment procedures** while taking into account that:
  - (bridged) overlap as an implicit quality adjustment method should be applied only under specific conditions as described in the HICP recommendation on bridged overlap (published June 2021)<sup>7</sup>;
  - new data sources, such as web-scraped data, facilitate the implementation of explicit quality adjustment methods (e.g., hedonic quality adjustments).
- m. Continue existing work to access and introduce new/alternative/administrative data sources such as web scraped and scanner data while ensuring that:
  - conceptual and qualitative differences between the new and the traditional source and any impact on index series are evaluated, documented and communicated to users;

<sup>&</sup>lt;sup>5</sup> <u>https://eur-lex.europa.eu/eli/reg\_impl/2020/1148/oj</u>

<sup>&</sup>lt;sup>6</sup> <u>https://ec.europa.eu/eurostat/documents/3859598/9479325/KS-GQ-17-015-EN-N.pdf/d5e63427-c588-479f-9b19-f4b4d698f2a2</u>

<sup>&</sup>lt;sup>7</sup> https://ec.europa.eu/eurostat/documents/272892/7048317/Recommendation-bridged-overlap-June-2021.pdf/

- staff skills are acquired/developed and appropriate to perform quantitative and efficient data processing and management (cleaning, classification) using statistical software (e.g., R, Stata, SAS, etc.);
- principles of representativity are not compromised (e.g., market coverage);
- additional resources are available to allow for the necessary investments in IT developments and infrastructure;
- implemented methods and procedures are in line with Eurostat recommendations<sup>8</sup> on Processing scanner data (2017)<sup>9</sup>, web scraping (November 2020).<sup>10</sup>
- n. Assess the importance of e-commerce (internet purchases), mobile/online payments, new platform services and cross-border transactions in the Georgian consumer market and implement appropriate data collection procedures, taking into account that:
  - the share of these markets and retail channels are increasingly used by consumers.

See also Eurostat recommendation on (December 2016)<sup>11</sup>.

- o. **Revive the plans for regular contacts and interaction with CPI/Price statistics** key users and stakeholders on methodology development, interpretation and dissemination formats.
  - This will over time enhance the relevance and use of price statistics among national users.
  - Alternatively, form a formal/informal advisory committee on CPI to provide technical advice for the GEOSTAT Advisory Committee.
- p. Include research/development in measurement of rental prices and introduction of OOH on the work plan for the coming next few years, taking into account that:
  - it will be a large undertaking to comply with European standards / international recommendations in this complex area;
  - Eurostat plans to integrate OOH into the HICP (as requested by ECB).

## 2.6 Principles 9 and 10: Non-excessive burden on respondents and Cost effectiveness

- q. Assess the opportunity and develop a strategy of allocating existing staff resources to new price statistical processes taking into account that:
  - the use of new/alternative data sources eventually reduces the workload of primary price data collections in stores and businesses;
  - web scraped, scanner data and admin price data require continuous and extensive data processing (data cleaning, classification, quality checks, article selection).

<sup>&</sup>lt;sup>8</sup> All Eurostat recommendations and guidelines for the HICP are listed on the Eurostat website:

https://cc.europa.eu/eurostat/web/hicp/methodology. Recently, a new recommendation on the use of multilateral methods for the compilation of HICP was discussed at the Price Statistics Working Group in November 2021 and will be published when officially endorsed by the Directors of Macro-Economic Statistics in the European Statistical System (ESS).
<sup>9</sup> https://circabc.europa.eu/sd/a/8e1333df-ca16-40fc-bc6a-1ce1be37247c/Practical-Guide-Supermarket-Scanner-Data-September-2017.pdf

<sup>&</sup>lt;sup>10</sup> https://ec.europa.eu/eurostat/documents/272892/12032198/Guidelines-web-scraping-HICP-11-2020.pdf/

<sup>&</sup>lt;sup>11</sup> https://ec.europa.eu/eurostat/documents/272892/7048317/HICP-recommendation-on-internet+purchases-December-2016/

## 2.7 Principle 11: Relevance

r. Create a permanent forum for key stakeholders of GEOSTAT price statistics. This forum, either formal or informal, could serve as a body to inform users on recent developments, new initiatives, methodological changes and other topics related to the price statistics compilation as well as solicit emerging user needs and external technical expertise relevant for price statistics. This forum could take the format of a CPI Advisory Panel, providing technical advice to the GEOSAT Advisory Committee on CPI or broader price statistics specific issues.

## 2.8 Principle 12: Accuracy and Reliability

s. **Identify and investigate potential sources of errors and biases** that may have an impact on the CPI. Even if their impact, magnitude and direction may not be directly measured, consider their relative importance and make plans for addressing them. Include the findings of these investigations as part of the CPI methodological document.

## 2.9 Principle 14: Data coherence and comparability

t. Introduce metadata attributes about breaks in time-series to all data publications and releases.

## 2.10 Principle 15: Accessibility and clarity

- u. Provide some additional price statistical data on the website:
  - the consumer basket of weights (at least) at COICOP 4-digit level (weights of all basket items at request to users);
  - CPI series at COICOP 4-digit level over 2010 average.
- v. Consider disseminating rates-of-change (in %) instead of index numbers when appropriate, taking into account that the concept of a price index with "previous month" or "same month in the previous year" as the base reference period is not internationally established.
- w. Provide more non-scientific guidelines and information on the website, including:
  - information for public users on how to and for what reasons to use price indices;
  - answers to "FAQs" that address typical misconceptions and misinterpretations of the CPI.

#### **Categorisation of recommendations**

The recommendations above have been further categorised into short-term and medium-term recommendations based on their importance in further improving compliance with European standards in price statistics. Short-term recommendations involve changes that should and could realistically be implemented within the year 2022 while the medium-term recommendations are of the nature that are linked to broader institutional programmes or require preparatory work that involves other stakeholders.

#### Recommendations

#### Short-term:

• Ensure that the resources are fully in place in the medium term. (Para 2.2 c)

Recomn	nendations							
•	Clarify the conceptual differences in terms of expenditure coverage between the national CPI and HICP. (2.5 i)							
•	Revise imputation procedures of seasonal products. (2.5 j)							
•	Identify volatile prices and adapt price collection procedures. (2.5 k)							
•	Continue existing efforts to improve quality adjustment procedures. (2.5 l)							
•	Continue existing work to access and introduce new data sources. (2.5 m)							
•	Provide some additional price statistical data on the website. (2.10 u)							
Medium	-term:							
•	Ensure the data access provisions in the Statistics Law and collaboration practices with other stakeholders are kept up-to-date in the changing data landscape.							
•	Further strengthen GEOSTAT's role as a data steward.							
•	Create a department-specific sustainable capacity plan.							
•	Within the currently implemented framework of quality management, identify more specific actions for the Price Statistics Department to implement.							
•	Further clarify the role of the GEOSTAT Board in reviewing and approving methodological changes.							
•	Ensure that the mandated quality dimensions are enforced in practice.							
•	Investigate complementary data sources for detailed weights.							
•	Assess the importance of e-commerce in the CPI.							
•	Revive the plans for regular contacts and interaction with CPI/Price statistics.							
•	Include research/development in measurement of rental prices and introduction of OOH on the work plan.							
•	Assess the opportunity and develop a strategy of allocating existing staff resources.							
•	Create a permanent forum for key stakeholders of GEOSTAT price statistics.							
•	Identify and investigate potential sources of errors and biases.							
•	Introduce metadata attributes about breaks in time-series to all data publications and releases.							
•	Consider disseminating rates-of-change instead of index numbers when appropriate.							
•	Provide more non-scientific guidelines and information on the website.							

# References

#### National documents

- Repository of documentation on GEOSTAT https://www.geostat.ge/en/modules/categories/187/about-us
- The Law of Georgia on Official Statistics <u>https://geostat.ge/media/20817/latest-Law-of-Georgia\_2018.pdf</u>
- Charter of the National Statistics Office of Georgia <u>https://geostat.ge/media/20845/10%2Csaqstatis-konsolidirebuli-debuleba.pdf</u>
- Charter of the Price Statistics Department of GEOSTAT (in Georgian only) <u>https://www.geostat.ge/en/page/fasebis-statistikis-departamenti</u>
- GEOSTAT Price Statistics Methodology documents –
   <u>https://www.geostat.ge/en/modules/categories/122/methodologia-price-statistics</u>
- GEOSTAT CPI Technical Manual <u>https://www.geostat.ge/media/20509/CPI-</u> methodology\_19.02.2019.pdf
- GEOSTAT CPI Publication (December 2021) <u>https://www.geostat.ge/en/single-news/2428</u>
- GEOSTAT Personal Inflation Calculator <u>https://www.geostat.ge/personalinflation/?lang=en</u>
- GEOSTAT Price Kaleidoscope <u>http://kaleidoscope.geostat.ge/kaleidoscope/index.php?lang=en</u>
- Georgia CPI SDDS metadata <u>https://dsbb.imf.org/sdds/dqaf-base/country/GEO/category/CPI00</u>

#### International documents

- Quality Assurance Framework of the European Statistical System <u>https://ec.europa.eu/eurostat/documents/64157/4392716/ESS-QAF-V1-2final.pdf/bbf5970c-1adf-46c8-</u> afc3-58ce177a0646
- European Statistics Code of Practice <u>https://ec.europa.eu/eurostat/documents/4031688/8971242/KS-02-18-142-EN-N.pdf/e7f85f07-91db-4312-8118-f729c75878c7?t=1528447068000</u>
- HICP Legislation (Framework Regulation 2016/792 and Commission Implementing Regulation 2020/1148) <u>https://eur-lex.europa.eu/eli/reg\_impl/2020/1148/oj</u>
- HICP Methodology <u>https://ec.europa.eu/eurostat/web/hicp/methodology</u>
- HICP Methodological Manual <u>https://ec.europa.eu/eurostat/documents/3859598/9479325/KS-GQ-17-015-EN-N.pdf/d5e63427-c588-479f-9b19-f4b4d698f2a2</u>
- Eurostat HICP Guideline on Scanner Data <u>https://circabc.europa.eu/sd/a/8e1333df-ca16-40fc-bc6a-</u> <u>1ce1be37247c/Practical-Guide-Supermarket-Scanner-Data-September-2017.pdf</u>
- Eurostat HICP Guideline on web-scraping <u>https://ec.europa.eu/eurostat/documents/272892/12032198/Guidelines-web-scraping-HICP-11-2020.pdf/</u>
- Eurostat HICP Recommendation on internet purchases <u>https://ec.europa.eu/eurostat/documents/272892/7048317/HICP-recommendation-on-internet+purchases-December-2016/</u>

- Eurostat HICP Recommendation on bridged overlap <u>https://ec.europa.eu/eurostat/documents/272892/7048317/Recommendation-bridged-overlap-June-2021.pdf/</u>
- Consumer Price Index Manual Concepts and Methods 2020 (IMF/ILO/OECD/UNECE/Eurostat/World Bank) – <u>https://www.ilo.org/wcmsp5/groups/public/---</u> <u>dgreports/---stat/documents/publication/wcms\_761444.pdf</u>
- United Nations Fundamental Principles of Official Statistics <u>https://unstats.un.org/unsd/dnss/gp/fundprinciples.aspx</u>
- UN guidance on generic law of official statistics <u>https://unece.org/statistics/publications/generic-law-official-statistics</u>

## Annexes

# Annex 1: Agenda

#### AGENDA

## National Statistics Office of Georgia

#### **Sector Review – Price Statistics**

#### 6-9 December 2021

#### **International Review Team**

Experts:	Mr Kari Manninen and
	Mr Ingolf Böttcher

Monday, December 6				
09:15 - 09:45	Opening and introduction to the review	Review team and the participants from GEOSTAT		
09:45 - 10:45	Institutional environment	Meeting with GEOSTAT		
	Cross-cutting issues	Senior Management		
10:45 – 11:00	Coffee break			
11:00 - 12:30	Institutional environment	Meeting with Price Section		
	Principles 2 Mandate for data collection	head and GEOSTAT Senior Management		
	3 Adequacy of resources			
12:30 - 12.45	Revising the workplan	Review team		
12:45 – 13:45	Lunch break			
13:45 - 15:15	Institutional environment	Meeting with Price Section		
	Principle 4 Commitment to Quality	head and Manager responsible for the National Statistics Development Strategy and Manager from Internal audit department		
15:15 – 15:30	Coffee break			
15:30 - 16:30	Institutional environment	Meeting with relevant		
	Principle 6 Impartiality and objectivity	GEOSTAT staff (e.g., Manager from the department of Strategic Planning, Coordination and		
16:30-17:00	Cross-cutting issues	Communication)		

Tuesday, December 7								
09:15 - 10:30	Statistical processes	Meeting with Price section						
	Principle	core staff and other relevant GEOSTAT staff						
	7 Sound methodology							
	- Presentation GEOSTAT (15 min)							
	- Feedback by review team on SAQ-answers and presentation provided by GEOSTAT							
	- Discussion on open questions							
	- Identification of missing information and conclusion on preliminary recommendations							
10:30 - 10:45	Coffee break							
10:45 - 12:00	Statistical processes	Meeting with Price section						
	Principle	core staff and other relevant GEOSTAT staff						
	8 Appropriate statistical procedures							
12:00 - 13:15	Lunch break							
13:15 - 14.30	Statistical processes	Meeting with Price section						
	Principles	core staff and other relevant GEOSTAT staff						
	9 Non-excessive burden on respondents							
	10 Cost effectiveness							
	(structured as above)							
14:30 - 14:45	Coffee break							
14:45 - 17:00	Meeting with Board of GEOSTAT Members	Invited group meeting						
	Cross-cutting issues and Discussion on:	online/in-person (e.g., Board of GEOSTAT Members						
	- past and future major methodological changes	from National Bank, Ministries, and scientific community)						
	- stakeholder opinions on GEOSTAT Prices Statistics	community)						

Wednesday, December 8							
09:15 - 10:30	Statistical output	Meeting with Price section					
	Principles	core staff and other relevant GEOSTAT staff					

Wednesday, December 8							
	12 Accuracy and reliability						
	13 Timeliness and punctuality						
	14 Coherence and comparability						
	15 Accessibility and clarity						
	- No presentation by GEOSTAT						
	- Feedback by review team on SAQ-answers provided by GEOSTAT						
	- Discussion on open questions						
	- Identification of missing information and conclusion on preliminary recommendations						
10:30 - 10:45	Coffee break						
10:45 - 12:00	Meeting with key Users	Invited group meeting online / in person with different					
	Incl. discussion on Principle <b>11 Relevance</b> (whether price statistics meet and serve the existing needs of governments, research institutions, business concerns and the public in general; whether emerging needs and priorities in price statistics are systematically considered)	groups of users (media, public sector, scientific and research community)					
12:00 - 13:15	Lunch break						
13:15 - 15.45	Follow-up on missing information and open questions	Meeting with Price section core staff					
	<ul> <li>Provision of missing information on institutional environment, statistical processes and output</li> <li>Tie up loose ends and open questions</li> </ul>						
15:45 - 17:00	15:45 – 17:00 <b>Recommendations</b>						
	Drafting of the results						

Thursday, December 9							
09:30 - 10:30							
	<ul> <li>Presentation of the mission results and preliminary recommendations</li> <li>Discussion of preliminary recommendations</li> </ul>	Final meeting with senior management and head of Price section					

Thursday, December 9							
10:30 - 10:45	Coffee break						
10:45 - 12:15	Recommendations	GEOSTAT Team					
	<ul><li>Views of GEOSTAT on recommendations</li><li>Discussion on options and necessary actions</li></ul>						
12:15 – 12:45	Wrap-up and way forward						

Participants of the		6 December		7 December		8 December		9 December	
	GEOSTAT	am	pm	am	pm	am	pm	am	pm
	<b>Mr. Gogita Todradze</b> , Executive Director of GEOSTAT	~						~	
	<b>Ms. Lia Dzebisauri</b> , Deputy Executive Director	~						~	
	Mr. Giorgi Tetrauli - Head of Price Statistics Department	~	~	~	~	~	~	~	~
	<b>Ms. Khatuna Aptsiauri</b> – Head of Consumer Price Statistics Division	~	~	$\checkmark$	$\checkmark$	~	~	~	~
	<b>Ms. Nino Jakobia</b> International and Public Relations Division	~	~	~		~		~	~
	Mr. Boris Ezugbaia, Head of Strategic Planning, Coordination and Communication Department		~						
	Mr. Teimuraz Gogishvili_ Head of Methodology and Quality Management Division		~						
	<b>Mr. Levan Tserediani</b> , Methodology and Quality Management Division		~						
	Mr. Levan Kardaulize - Head of National Accounts Department			~			~		
	<b>Ms. Maia Mindorashvili</b> Assistant professor at Tbilisi State University Member of GEOSTAT Board, PhD in Economics				V				
	Mr. Simon Gelashvili Professor at Tbilisi State University of Statistics				~				

Annex 2: Participants at the meetings for the review of Price statistics

Monday,

Tuesday,

Wednesday,

Thursday,

Department. Head of the Economic and Social **Statistics Academic** 

Participants of the	Monday, 6 December		Tuesday, 7 December		Wednesday, 8 December		Thursday, 9 December	
GEOSTAT	am	pm	am	pm	am	pm	am	pm
Department; Member of GEOSTAT Board								
Mr. Archil Mestvirishvili Member of the Board of the National Bank of Georgia, Vice-Governor. Member of the Board of GEOSTAT							V	