Residential Property Price Index

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2. Metadata update	
2.1. Metadata last certified	April 29, 2024
2.2. Metadata last posted	April 29, 2024
2.3. Metadata last update	April 29, 2024

3. Statistical presentation	
3.1. Data description	
The residential property price index (RPPI) measures the price evolution of residential properties in Georgia.	
3.2. Classification system	
An internal classification is used. In particular, the data is represented in two subgroups: deteached houses and flats.	
3.3. Sector coverage	
The RPPI cover only the market of new dwellings for the capital city (Tbilisi) for both multi-dwelling buildings (flats) and detached houses segments.	
3.4. Statistical concepts and definitions	
Published data: • The index levels compared to the previous quarter; • The index levels compared to the same quarter of the previous year; • The index levels compared to the 2020 average.	
3.5. Statistical unit	
Data on residential dwellings in Tbilisi that were advertised for sale.	
3.6. Statistical population	
Index reflects the market segments of multi-dwelling buildings (flats) and detached houses.	
3.7. Reference area	
The capital city (Tbilisi).	
3.8. Time coverage	
2020 – To present.	
3.9. Base period	
2020.	

4. Unit of measure
Index.

5. Reference period
Quarter.

6. Institutional mandate	
6.1. Legal acts and other agreements	
The Law of Georgia on Official Statistics; https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf Statistical Work Programme (annual); https://www.geostat.ge/en/modules/categories/307/statistical-work-programme	

Charter of the National Statistics Office of Georgia.
https://www.geostat.ge/media/20845/10%2Csaqstatis-konsolidirebuli-debuleba.pdf
6.2. Data sharing
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7. Confidentiality
7.1. Confidentiality – policy

1. The Law of Georgia on Official Statistics:
   - According to the article 5 of the law Statistical confidentiality and exclusive use for statistical purposes – individual data collected or received by the producer of official statistics, relating to natural or legal persons, must be strictly confidential and used only for statistical purposes.
   - According to the article 34 (Observing Confidentiality of Statistical Data) of the law 1. Data collected, processed, and stored to produce official statistics are confidential if they enable the direct or indirect identification of a statistical unit. In addition, aggregated data are subject to statistical confidentiality: a) Aggregates composed of 1 to 3 units, when the unit is a natural or legal person if one of these units could be identified indirectly, thereby disclosing individual data about this unit. Aggregates composed of more than 3 units may be declared confidential by the Executive Director if required to ensure statistical confidentiality; b) Information declares as a state secret on the basis of the „Law of Georgia on State Secrets". 2. Confidential data shall be used exclusively for the purposes of producing statistics in accordance with this law. 3. Statistical data about the administrative body cannot be considered confidential information, except for the information determined by the Law of Georgia „On State Secrets". 4. Individual data obtained from publicly available sources, which are defined as public information in accordance with the legislation of Georgia, shall not be considered confidential information. 5. Confidential (individual) data may be published if there is written consent from the statistical unit regarding the publication of such data. 6. It is not allowed to disseminate and distribute confidential data or use it for non-statistical purposes.
   - According to the article 38 (Confidentiality commitments) of the law the confidential statistical data collected and processed for statistical purposes shall not be used or disseminated either for personal, academic, research or any other activities, by the employees of the producers of Official Statistics.
   https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf
2. Data Confidentiality Policy at Geostat
   https://www.geostat.ge/media/20860/Data-Confidentiality-Policy-at-Geostat_En.pdf
3. Procedure for providing access to confidential data for research purposes
   https://www.geostat.ge/media/61533/Rule-on-Access-to-Confidential-Data-for-Scientific-and-Research-Purposes....pdf
4. The Law of Georgia on Personal Data Protection
   https://matsne.gov.ge/en/document/view/1561437?publication=9

7.2. Confidentiality – data treatment

- Confidentiality guidelines.
- Written undertakings by an employee of Geostat on ensuring confidentiality of gained/collected data as a result of official duties.

8. Release policy
8.1. Release calendar
Data dissemination dates are defined by the calendar developed on the basis of the Statistical Work Programme, which is published on the website of Geostat and is publicly available.
8.2. Release calendar access
https://www.geostat.ge/en/calendar
8.3. User access
All users have the equal access to the statistical data simultaneously.

9. Frequency of dissemination
Quarterly.

10. Accessibility and clarity

10.1. News release
Every quarter, a press release for the RPPI is published through the Geostat's website. It contains information about quarterly and annual changes of the index, as well as comparative dynamics of the RPPI and CPI. The press release also contains information on the prices of new dwellings for the capital city (Tbilisi) by districts: https://www.geostat.ge/en/news?year=&month=&category=7

10.2. Publications
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10.3. On-line database
Data is accessible to all consumers on Geostat website: https://www.geostat.ge/en/modules/categories/698/residential-property-price-index Also available in PC-Axis format: https://pc-axis.geostat.ge/PXweb/pxweb/en/Database/?rxid=4dabe1df-7243-4303-95d3-8fed16919ef4

10.4. Micro-data access
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10.5. Other
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10.6. Documentation on methodology
The methodology on computing residential property price index is available on Geostat website: https://www.geostat.ge/en/modules/categories/122/methodologia-price-statistics

10.7. Quality documentation
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11. Quality management
11.1. Quality assurance
To ensure the quality of the statistical processes and products Geostat follows Chapter 10 – Quality of official statistics – of the Law of Georgia on Official Statistics, as well as the European Statistics Code of Practice, the UN Fundamental Principles of Official Statistics and Quality Assurance Framework of the European Statistical System (ESS QAF).
11.2. Quality assessment
Methodology and Quality Management Division of Geostat, along with the sectoral departments, is responsible for the quality of the produced statistical products and processes. The Division carries out quality audit, self-assessment of statistical processes and assesses the risks for the quality of statistical processes and products. Geostat has developed policy documents, guidelines and standard routine descriptions. These documents ensure the standardization of statistical processes and products and the establishment of a unified quality assurance system. Quality policy is available on the following link: https://www.geostat.ge/media/44380/QP_Geostat_EN.pdf

12. Relevance
12.1. User needs
Residential property price index is used for the following purposes: 1. As an indicator for the macroeconomic and financial stability; 2. For the assessment of development and risks of the real estate market. The main users of the index are: public authorities, international organizations, researchers and students, media and other interested persons.
12.2. User satisfaction
In 2023 user satisfaction survey was conducted, the target of the survey was to analyze the assessment of quality of statistical data by users and explore ways to improve user services. The survey report is available on the website of Geostat (in Georgian): https://www.geostat.ge/ka/page/customer-service
12.3. Completeness
Data corresponds to international standards.

13. Accuracy and reliability
13.1. Overall accuracy

Data accuracy is provided with accordance to international methodology on research and calculation.

13.2. Sampling error
No sample error evaluation for RPPI. Sample size is optimal given the study objectives and limited resources.

13.3. Non-sampling error
No non-sample error evaluation for RPPI. In order to keep this type of error minimal index calculation includes multiple levels of validation.

14. Timeliness and punctuality

14.1. Timeliness
The data is published on the 23rd day of the month following the reporting quarter.

14.2. Punctuality
The data is published according to the date specified in the statistical work program. There has not been any violation of publication dates.

15. Coherence and comparability

15.1. Comparability – geographical
The coverage of the RPPI is limited to the capital city (Tbilisi) and covers only the market of new dwellings for both multi-dwelling buildings (flats) and detached houses. Indices for flats and detached houses are aggregated into a total index using sub-index weights.

15.2. Comparability – over time
Data is calculated since 2020 and is comparable both for the total index and for the sub-indices.

15.3. Coherence – cross domain
Data is coherent.

15.4. Coherence – internal
The indices are consistent with the initial data – aggregated indices are derived from elementary level indices through a clearly defined procedure.

16. Cost and burden
The necessary microdata for calculation of RPPI is automatically obtained from the real estate advertising websites using web scraping. This task is carried out by the price statistics staff of Geostat, within the annual program of statistical works and does not require additional funding.

17. Data revision

17.1. Data revision – policy
Statistical data revision policy is available on the website of Geostat: https://www.geostat.ge/media/59824/Data-Revision-Policy-and-Error_Correction-at-Geostat_Eng.pdf

17.2. Data revision – practice
Planned revision of data is not carried out. An unplanned revision (to clarify data) was not carried out in 2023

18. Statistical processing

18.1. Source data
The primary data used for calculating RPPI is obtained automatically from websites using web scraping. The obtained data contains information only about the market of new dwellings for capital city (Tbilisi), for both multi-dwelling buildings (flats) and detached houses. The data contains information on prices and characteristics (area, number of rooms, floor number, condition, balcony, garage, central heating, etc.) of dwellings that are advertised for sale in a particular period.

18.2. Frequency of data collection
Data is scraped 3 times per quarter, at the end of each month.

18.3. Data collection
Prices are collected only in Tbilisi and include new residential real estate market, both multi-dwelling buildings (flats) and detached houses segments. The data is obtained by automatically downloading information from websites (web scraping).

18.4. Data validation

Data validation consists of two stages:

The first stage of data validation takes place at the end of a reference quarter, before the index compilation. At this stage, analysis of the scraped data is conducted using the R-software and includes the following operations: removing duplicates, missing data and outliers, categorization and grouping of some variables, analysis of distribution using histograms, etc.

During **the second stage** of data validation the index figures are analyzed. This includes logical control of the index levels, comparison of index series between different sub-indices and other checks.

18.5. Data compilation

For calculation of the RPPI an internationally accepted method – „characteristics hedonic approach" is used. According to the approach, RPPI measures price evolution of a „typical" dwelling. This „typical" dwelling is estimated by averaging the key characteristics of all the properties in a stratum for a price reference period. The key characteristics of the dwellings are needed to assure that price index reflects only the price change of a dwellings and not a change in one of its characteristics (quality change).

Indices for flats and detached houses are aggregated into a total index using sub-index weights. The weight of a particular sub-index is obtained by summing up the prices of dwellings within the corresponding strata, which are based on the one last year announcement data from the websites. The sub-indices for flats and detached houses are then aggregated into the total RPPI. The weights are updated annually. The RPPI is calculated by comparing the price of the „typical" property in the current quarter with the price of the same „typical" property in the reference quarter. The average characteristics of the fourth quarter (i.e. the reference quarter) of the previous year are used to compile the index for the four quarters in the current year. The fourth quarter, therefore, acts as a link quarter for index time series (a chain).

18.6. Adjustment

Not applicable.

19. Comment

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