

# Residential Property Price Index

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<b>2. Metadata update</b>	
<b>2.1. Metadata last certified</b>	July 21, 2023
<b>2.2. Metadata last posted</b>	July 21, 2023
<b>2.3. Metadata last update</b>	July 21, 2023

<b>3. Statistical presentation</b>	
<b>3.1. Data description</b>	
The residential property price index (RPPI) measures the price evolution of residential properties in Georgia.	
<b>3.2. Classification system</b>	
An internal classification is used. In particular, the data is represented in two subgroups: detached houses and flats.	
<b>3.3. Sector coverage</b>	
The RPPI cover only the market of new dwellings for the capital city (Tbilisi) for both multi-dwelling buildings (flats) and detached houses segments.	
<b>3.4. Statistical concepts and definitions</b>	
Published data: <ul style="list-style-type: none"> <li>• The index levels compared to the previous quarter;</li> <li>• The index levels compared to the same quarter of the previous year;</li> <li>• The index levels compared to the 2020 average.</li> </ul>	
<b>3.5. Statistical unit</b>	
The published figures correspond to the residential dwellings in Tbilisi that were advertised for sale.	
<b>3.6. Statistical population</b>	
Index reflects the market segments of multi-dwelling buildings (flats) and detached houses.	
<b>3.7. Reference area</b>	
The reference area covers the market of new dwellings located in the capital city (Tbilisi).	
<b>3.8. Time coverage</b>	
2020 – To present.	
<b>3.9. Base period</b>	
2020.	

<b>4. Unit of measure</b>	
Index.	

<b>5. Reference period</b>	
Quarter.	

<b>6. Institutional mandate</b>	
<b>6.1. Legal acts and other agreements</b>	
The Law of Georgia on Official Statistics; <a href="https://www.geostat.ge/media/20817/latest-Law-of-Georgia_2018.pdf">https://www.geostat.ge/media/20817/latest-Law-of-Georgia_2018.pdf</a> Statistical Work Programme (annual); <a href="https://www.geostat.ge/en/modules/categories/307/statistical-work-programme">https://www.geostat.ge/en/modules/categories/307/statistical-work-programme</a>	

Charter of the National Statistics Office of Georgia. <a href="https://www.geostat.ge/media/20845/10%2Csaqstatis-konsolidirebuli-debuleba.pdf">https://www.geostat.ge/media/20845/10%2Csaqstatis-konsolidirebuli-debuleba.pdf</a>
<b>6.2. Data sharing</b>
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<b>7. Confidentiality</b>
<b>7.1. Confidentiality – policy</b>
<p>1. The Law of Georgia on Official Statistics:</p> <ul style="list-style-type: none"> <li>• According to the article 4 of the law individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.</li> <li>• According to the article 28 (Observing Confidentiality of Statistical Data) of the law 1. The data collected for the purpose of producing official statistics shall be confidential if it allows for identification of observation unit or it is possible to identify such data through it. 2. The confidential statistical data shall not be issued or disseminated or used for a non-statistical purpose but for the exceptions envisaged by the Georgian legislation. 3. When producing the official statistics, it is obligatory to destroy or store separately the identity data including the questionnaires containing such data and used for statistical surveys according to the rules defined in the Georgian legislation.</li> <li>• According to the article 29 (The Obligations and Responsibilities of the Employees of the Geostat) of the law the confidential statistical data collected and processed for the purpose of statistical survey shall not be used or disseminated by the employees of the units of the Geostat.</li> </ul> <p><a href="https://www.geostat.ge/media/20817/latest-Law-of-Georgia_2018.pdf">https://www.geostat.ge/media/20817/latest-Law-of-Georgia_2018.pdf</a></p> <p>2. Data Confidentiality Policy at Geostat <a href="https://www.geostat.ge/media/20860/Data-Confidentiality-Policy-at-Geostat_En.pdf">https://www.geostat.ge/media/20860/Data-Confidentiality-Policy-at-Geostat_En.pdf</a></p> <p>3. Public Use Microdata Dissemination Policy at Geostat <a href="https://www.geostat.ge/media/20862/Microdata-Dissemination-Policy_Eng.pdf">https://www.geostat.ge/media/20862/Microdata-Dissemination-Policy_Eng.pdf</a></p> <p>4. The Law of Georgia on Personal Data Protection <a href="https://matsne.gov.ge/en/document/view/1561437?publication=9">https://matsne.gov.ge/en/document/view/1561437?publication=9</a></p>
<b>7.2. Confidentiality – data treatment</b>
<ul style="list-style-type: none"> <li>• Confidentiality guidelines.</li> <li>• Written undertakings by an employee of Geostat on ensuring confidentiality of gained/collected data as a result of official duties.</li> </ul>

<b>8. Release policy</b>
<b>8.1. Release calendar</b>
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.
<b>8.2. Release calendar access</b>
<a href="https://www.geostat.ge/en/calendar">https://www.geostat.ge/en/calendar</a>
<b>8.3. User access</b>
All users have the equal access to the statistical data simultaneously.

<b>9. Frequency of dissemination</b>
Quarterly.

<b>10. Accessibility and clarity</b>
<b>10.1. News release</b>
<p>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:</p> <p><a href="https://www.geostat.ge/en/news?year=&amp;month=&amp;category=7">https://www.geostat.ge/en/news?year=&amp;month=&amp;category=7</a></p>
<b>10.2. Publications</b>
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<b>10.3. On-line database</b>
Data is accessible to all consumers on Geostat website: <a href="https://www.geostat.ge/en/modules/categories/698/residential-property-price-index">https://www.geostat.ge/en/modules/categories/698/residential-property-price-index</a> Also available in PC-Axis format: <a href="http://pc-axis.geostat.ge/PXweb/pxweb/en/Database/?rxid=4dabe1df-7243-4303-95d3-8fed16919ef4">http://pc-axis.geostat.ge/PXweb/pxweb/en/Database/?rxid=4dabe1df-7243-4303-95d3-8fed16919ef4</a>
<b>10.4. Micro-data access</b>
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<b>10.5. Other</b>
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<b>10.6. Documentation on methodology</b>
The methodology on computing residential property price index is available on Geostat website: <a href="https://www.geostat.ge/en/modules/categories/122/methodologia-price-statistics">https://www.geostat.ge/en/modules/categories/122/methodologia-price-statistics</a>
<b>10.7. Quality documentation</b>
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<b>11. Quality management</b>
<b>11.1. Quality assurance</b>
To ensure the quality of the statistical processes and products Geostat follows Article 4 – Basic principles 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 (QAF).
<b>11.2. Quality assessment</b>
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 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.

<b>12. Relevance</b>
<b>12.1. User needs</b>
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.
<b>12.2. User satisfaction</b>
In 2021 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): <a href="https://www.geostat.ge/ka/page/customer-service">https://www.geostat.ge/ka/page/customer-service</a>
<b>12.3. Completeness</b>
Data corresponds to international standards.

<b>13. Accuracy and reliability</b>
<b>13.1. Overall accuracy</b>
Data accuracy is provided with accordance to international methodology on research and calculation.
<b>13.2. Sampling error</b>
No sample error evaluation for RPPI. Sample size is optimal given the study objectives and limited resources.
<b>13.3. Non-sampling error</b>
No non-sample error evaluation for RPPI. In order to keep this type of error minimal index calculation includes multiple levels of validation.

<b>14. Timeliness and punctuality</b>
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<b>14.1. Timeliness</b>
The data is published on the 23rd of the month following the reporting quarter.
<b>14.2. Punctuality</b>
The data is published according to the date specified in the statistical work program. There has not been any violation of publication dates.
<b>15. Coherence and comparability</b>
<b>15.1. Comparability – geographical</b>
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.
<b>15.2. Comparability – over time</b>
Data is calculated since 2020 and is comparable both for the total index and for the sub-indices.
<b>15.3. Coherence – cross domain</b>
Data is coherent.
<b>15.4. Coherence – internal</b>
The indices are consistent with the initial data – aggregated indices are derived from elementary level indices through a clearly defined procedure.
<b>16. Cost and burden</b>
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.
<b>17. Data revision</b>
<b>17.1. Data revision – policy</b>
Statistical data revision policy is available on the website of Geostat: <a href="https://www.geostat.ge/media/44385/Revision-policy-and-error-correction_Geo.pdf">https://www.geostat.ge/media/44385/Revision-policy-and-error-correction_Geo.pdf</a>
<b>17.2. Data revision – practice</b>
Planned revision of data is not carried out. An unplanned revision (to clarify data) was not carried out in 2022
<b>18. Statistical processing</b>
<b>18.1. Source data</b>
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.
<b>18.2. Frequency of data collection</b>
Data is scraped 3 times per quarter, at the end of each month.
<b>18.3. Data collection</b>
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).
<b>18.4. Data validation</b>
Data validation consists of two stages: <b>The first stage</b> 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 <b>the second stage</b> 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.
<b>18.5. Data compilation</b>

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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