

Quality report on calculation of housing market price index

Item No	Concept Name	Description
1	Contact	
1.1	Contact organisation	State Statistical Committee of the Republic of Azerbaijan
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2	Statistical presentation	
2.1	Data description	Housing market price index is the indicator that characterizes the change in the average price of 1 m ² of housing in the primary and secondary real estate market.
2.2	Classification system	• Classification of Administrative Territorial Division, 2019 • Classification of Types of Economic Activities (rev.3) (based on NACE rev.2) • Classification of Measurement Units Access to all classifications: http://www.azstat.org/tesnifat/ ; https://www.stat.gov.az/menu/5/ Classifications are available only in Azerbaijani.
2.3	Sector coverage	NACE, section L (Real Estate Activities)

2.4	Statistical concepts and definitions	- Well-projected apartments – low rise, unfavourably projected apartments, including 5 storeyed buildings; - Single-type apartments – 5-9 storeyed, large-panel, stone, relatively favourably projected apartments; - Well-projected apartments – 9 storeyed and over, concrete stone, large project apartments; - Elite apartments – large, lux and non-standard project, highly comfortable apartments constructed based on private projects.
2.5	Statistical unit	Observation unit – average price of 1 square meter of apartment Reporting unit – natural and legal entities representing housing construction cooperatives operating in the primary and secondary housing market, Limited Liability Companies, Joint Stock Companies, and agencies engaged in real estate activities regardless of the form of ownership.
2.6	Statistical population	The total population involved in the indicators includes prices realized due to real estate operations in Ganja, Mingachevir, Sumgayit, Khirdalan, Shirvan, Shaki, Lankaran, Yevlakh, Naftalan cities and Guba, Gabala, Dashkasan, Goychay, Neftchala and Khachmaz districts.
2.7	Reference area	Price registration is conducted in Baku, Ganja, Mingachevir, Sumgayit, Khirdalan, Shirvan, Shaki, Lankaran, Yevlakh, Naftalan cities and Guba, Gabala, Dashkasan, Goychay, Neftchala and Khachmaz districts.
2.8	Time coverage	Data on the indicator are available since 2010.
2.9	Base period	Base period use for index is 2010.
3	Statistical processing	
3.1	Source data	Primary data are collected through Form No 1-apartment “Observation form of housing market prices” by involving natural and legal entities representing housing construction cooperatives, Limited Liability Companies, Joint Stock Companies, and agencies engaged in real estate activities in the survey. Primary data are collected by sample statistical observation. At this time, involving of enterprises having higher share in the housing market is preferred.
3.2	Frequency of data collection	Data collection is conducted quarterly.
3.3	Data collection	Data are collected face-to-face (with direct communication) by price registrars and entered into the database in an online regime. A seminar is organized for price registrars to improve quality of primary data. http://www.stat.gov.az/menu/4/e-reports/az/17/1-menzil.zip
3.4	Data validation	Once the data are entered into the database through online software, processing the entered data is carried out. At this time, the data are checked by the employees of the department through specially developed control tables. Data control is carried out applying

		coefficients through specially developed control tables in the software and price registrars are informed about the detected discrepancies, clarifications are made, and discrepancies are eliminated.
3.5	Data compilation	If any discrepancies are detected in the reporting database, the data can be researched in detail, and corrections can be made by the employees of the department together with the price registrars. Imputation is important for provision of indices stability. If the enterprise does not make a sale or provide information for a certain period, the method of "conditional" calculation of prices is applied. At this time, the price changes of the same types of housing are used by the district to calculate prices.
3.6	Adjustment	Seasonal adjustments are not conducted.
4	Quality management	
4.1	Quality assurance	The quality management system is implemented in the State Statistical Committee in accordance with international standard ISO 9001, in 2013 an external audit of the quality management system was conducted, and in August of the same year the State Statistical Committee first received a certificate of international compliance ISO 9001:2008 in the field of "Production and dissemination of the official statistical data". After the change in the international standard in 2015, all documents of the quality management system had been revised in accordance with the requirements of the international standard ISO 9001:2015. According to the results of the certification audit carried out on 09-10 March 2017, the administration of the State Statistical Committee and 13 local statistical bodies applying QMS, and then according to the results of the re-certification audit conducted on 02-06 March 2020, the administration of the State Statistical Committee and additional 17 local statistical bodies applying QMS were awarded international certificate of compliance ISO 9001:2015 in the field of "Production and dissemination of the official statistical data". (http://www.stat.gov.az/menu/2/quality/az/sertifikat_2015.pdf). For the aim to standardize the production of statistical products, "Generic Statistical Business Process Model" (GSBPM) has been applied since 2012. Based on the national version of the "Generic Statistical Business Process Model" a description of statistical processes on the application of GSBPM in the management of statistical processes on the housing market price index was developed. https://www.stat.gov.az/menu/2/quality/az/gsbpm/price/mb01_sb.pdf Seminars on QMS are organized for employees of structural units of the administration and local statistical bodies not less than once a year. In 2010 and 2017, a Global Assessment of the National Statistical System of the Republic of Azerbaijan was carried out by the European Statistical Office (Eurostat), United Nations Economic

		Commission for Europe (UNECE) and the European Free Trade Association (EFTA). According to recommendations of experts, improvements are being carried out in this area.
4.2	Quality assessment	Based on the "Audit program" approved annually, internal audits are carried out in the departments of the administration and local statistical bodies applying QMS. Audit teams are organized for conducting audits and an individual audit plan is approved for each structural unit. The audit team carries out the control according to the audit plan. Internal monitoring of quality aspects in the State Statistical Committee is carried out in a centralized manner by the competent structural unit (Quality Management and Metadata Department) and every year a document "Analysis by the top management" on the results of the conducted audits is prepared and submitted to the top management. Before every audit the audit team members (auditors) are instructed by the chief auditor and through seminars organized not less than once a year. Compliance of the activities of the State Statistical Committee with the requirements of the international standard "Quality management systems. Requirements" ISO 9001:2015 is considered one of the strengths. The increase of the workload due to the incomplete transition to electronic documentation and alongside this, keeping paper document circulation, the late adaptation of the staff (employees) to the new standards requirements are considered the weaknesses.
5	Relevance	
5.1	User Needs	Data users are subject-matter units of the State Statistical Committee and Ministry of Economy.
5.2	User Satisfaction	- Once a year, a meeting related with price statistics, including consumer and producer prices, is held with users and their needs are assessed (last meeting date-November 27, 2020) - Users also enter to the official web-page at www.stat.gov.az and reply to the questions in the section "survey on provision of users with statistical data". Thus, user satisfaction is measured.
5.3	Completeness	Data coverage is completely compatible with survey methodology.
5.3.1	Data completeness - rate	100%.
6	Accuracy and reliability	

6.1	Accuracy - overall	Given that sampling is carried out by price registrars during the observation of the housing market prices, the coverage of the sample is not so large. Data collection, index calculation is carried out in accordance with the methodology adopted by the Committee.
6.2	Sampling error	For the aim to observe the housing market prices, for each price registrar 5 statistical units on the primary housing market and 3 statistical units on the secondary housing market are involved in the survey.
6.2.1	Sampling error - indicators	Observation of the housing market prices is not considered a sampling error, as it includes statistical units selected by price registrars.
6.3	Non-sampling error	Non-sampling error is carried out in accordance with the "Rules for classification and elimination of errors in the reporting data" approved by Decision of the State Statistical Committee dated October 30, 2019, No. 9/3. https://www.stat.gov.az/menu/2/quality/az/00_5.pdf
6.3.1	Coverage error	Not calculated.
6.3.1.1	Over-coverage - rate	Not calculated.
6.3.1.2	Common units - proportion	Not applied, as there are no survey data and administrative data combinations.
6.3.2	Measurement error	Primary data (micro) are entered in an online regime by price registrars, and the micro-level editing of data is carried out initially by local statistical bodies, and the final editing is carried out by employees of the Price Statistics Department.
6.3.3	Non response error	Errors related to respondents who did not reply were not detected.
6.3.3.1	Unit non-response - rate	All respondents reply to the questionnaire, so there is no unit that does not respond, that is, the ratio is 0.
6.3.3.2	Item non-response - rate	Respondents replied to all relevant questions, so there is no item non-response.
6.3.4	Processing error	Each statistical data is checked immediately as entered the department, when errors are detected the corrections are made and mandatory instructions about it are given to statistical unit. The data collected in an online regime are checked on filling in the observation form through internal audits considered in the software in advance. Data are also checked by transferring to the "Excel" program. On primary processing of data, a special importance is given to checking the data completeness, compatibility and accuracy comparing with previous quarters.

6.3.4.1	Imputation - rate	Imputation level on March 2020: Number of the observed primary and secondary housing market prices is 1072; imputed – 80, imputation level – 7.5%
6.3.5	Model assumption error	Not applied.
6.4	Seasonal adjustment	Seasonal adjustments are not applied.
6.5	Data revision - policy	Review is not implemented. Data updating policy is implemented based on the “Regulation on review of data on main statistical indicators” approved by order of the State Statistical Committee dated 10.05.2016, No 60/t. http://www.stat.gov.az/menu/6/information_regulations/reg_05_2016.pdf
6.6	Data revision - practice	Review is not implemented.
6.6.1	Data revision - average size	Review is not implemented since this indicator is not calculated.
7	Timeliness and punctuality	
7.1	Timeliness	Timeliness is regularly discussed with users. Timeliness of observation is agreement (compromise) between users' needs and time of possible production. The results are published not less than 10 days after the last day of reporting quarter.
7.1.1	Time lag - first result	Only final results are published.
7.1.2	Time lag - final result	10 days (T2=10)
7.2	Punctuality	Calculation and dissemination of indicators is carried out based on “Statistical Works Program”. Cases of delay from the period specified in the dissemination calendar and program were not observed.
7.2.1	Punctuality - delivery and publication	Cases of delay are equal to zero (P3=0).
8	Coherence and comparability	

8.1	Comparability - geographical	Observation of prices is implemented by the country sample cities and districts. Index reflects price change in Azerbaijan. Indices are calculated by the country, cities and districts.
8.1.1	Asymmetry for mirror flow statistics - coefficient	Not applied.
8.2	Comparability - over time	Data on this indicator are available since 2010 and there were no intervals in time series.
8.2.1	Length of comparable time series	11 years
8.3	Coherence - cross domain	This area is coherent with service statistics, industry and construction statistics, population statistics.
8.4	Coherence - sub annual and annual statistics	Semi-annual results are fully coherent with annual results.
8.5	Coherence - National Accounts	Coherent with the national system of accounts.
8.6	Coherence - internal	Internal coherence is fully provided.
9	Accessibility and clarity	
9.1	News release	Information on this indicator is not submitted to the press.
9.2	Publications	Main data on indicator is reflected in the yearbook "Social and economic development".
9.3	Online database	Information on this indicator is not available in online database.
9.3.1	Data tables - consultations	35902 views (4.62% of total views on all sections) on price statistics were registered for 21.04.2021. http://www.stat.gov.az/link_click_counter/
9.4	Microdata access	Access to microdata is prohibited. Primary data could be used only according to "Rules on submission of microdata to users for research purposes" approved by the chairman of the State Statistical Committee on 13.06.2011. http://www.stat.gov.az/menu/6/personal_info/micro_inf.pdf
9.5	Other	All data are free of charge for users.
9.6	Documentation on methodology	Methodological explanations could be found at the following link: http://www.stat.gov.az/menu/7/other_metadata/

		Guidelines on filling in reporting form have been developed and information on that is posted on the relevant section of the webpage of the SSC: http://www.stat.gov.az/menu/4/e-reports/az/17/017.php
9.7	Quality documentation	Quality report http://www.stat.gov.az/menu/2/quality/ GSBPM in statistical processes management on housing price index https://www.stat.gov.az/menu/2/quality/az/gsbpm/price/mb01_sb.pdf
9.7.1	Metadata completeness - rate	100 %
9.7.2	Metadata - consultations	Record of the number of appeals on metadata is not implemented.
10	Cost and Burden	Data are collected by price registrars and entered into database in an online regime. Data entry takes in average 15 minutes. For the aim to reduce respondents' burden official statistical reporting and observation forms indicators are regularly improved, as well as for the aim to reduce production expenditures and respondents' burden the automatization of statistical processes, expanding use of information and communication technologies capacity is preferred. The department functions in this area according to the "Concept on reducing the respondents' statistical burden". https://www.stat.gov.az/menu/2/quality/
11	Confidentiality	
11.1	Confidentiality - policy	- According to the "Law on Official Statistics of the Republic of Azerbaijan" submission of primary data is prohibited. http://www.stat.gov.az/menu/3/Legislation/law_az.pdf - Access to microdata is prohibited. Primary data could be used only according to "Rules on submission of microdata to users for research purposes" approved by the chairman of the State Statistical Committee on 13.06.2011. http://www.stat.gov.az/menu/6/personal_info/micro_inf.pdf - There are guidelines "How to work with private data and how to protect their confidentiality?" approved by the decree of the State Statistical Committee dated 19 February 2014, No 7/02s http://www.stat.gov.az/menu/6/personal_info/personal_information_en.pdf - Protection of primary (private) data confidentiality is approved by the decree of the State Statistical Committee dated 23 November 2016, No 19/07s and reflected in the document "Policy of the State Statistical Committee of the Republic of Azerbaijan on protection of confidential statistical data". http://www.stat.gov.az/menu/2/quality/az/mexfilik.pdf

11.2	Confidentiality - data treatment	Official Statistics must not be disseminated to users, if they contain or reveal confidential data. Aggregates shall comprise at least three units and the share of one unit in an aggregate must not exceed 85% of the total.
12	Comment	No additional comments.