

Level 3 national report on quality of statistics underlying the MIP indicators

Statistical domain: Housing Price statistics

Country: Slovenia

Institution: Statistical Office of the Republic of
Slovenia (SURS)

Reference year: 2024

Date of update: 03/2025

National report providing information on quality, sources and methods, together with information on the statistical processes used for the compilation of the statistics underlying the MIP indicators (including concrete specifications for **housing price statistics) – 2025 update**

Reporting institution: Statistical Office of the Republic of Slovenia (SURS)

Selected principles					Some specific examples for indicators and related questions (Response options, unless indicated otherwise: not implemented; partially implemented; fully implemented)	Statistical domain specifications	Country response
European Code of Practice principles	Public Commitment on European Statistics by the ESCB	Selected elements					
<i>Institutional Environment</i>	<i>Institutional Environment</i>	<i>CoP/PC</i>	<i>IMF DQAF</i>	<i>SIMS</i>	<i>Question(s)</i>	<i>Housing price statistics</i>	Housing price statistics

CoP1 Professional Independence	PC1 Professional Independence	1.1/1.1	1.1.1 1.1.2	The independence of [name of reporting institution], from political and other external interference in developing, producing and disseminating official statistics is guaranteed by law.	<p><i>Legal basis:</i> Please specify the statutory basis for ensuring independent professional authority in all statistical decision making and activities at the institutional level. This legal authority provides the</p>	<p>Legal regulations governing statistics determine professional independence of the Statistical Office of the Republic of Slovenia (See the National Statistics Act, available on www.stat.si/dokument/5186/NationalStatisticsAct.pdf, approved by the Slovenian Parliament and published in the Official Journal of the Republic of Slovenia N. 45/1995 and 9/2001).</p> <p>Article 2 states: “National statistics shall be implemented on the principles of neutrality, objectivity, professional independence, rationality, statistical confidentiality and transparency. Statistics shall be obtained and submitted on the basis of the use of scientifically recognised and professionally appropriate methods. Institutions that carry out activities of national statistics should separate them clearly from their other activities”.</p>
				<p><i>Legal basis: Please confirm the independence by referring to the relevant national and EU legal act(s) and the formulation used in the legal act</i></p>		

		1.4/1.5		<p>The [name of reporting institution] has an annual statistical work programme which is made public.</p> <p><i>Statistics work programme: Please confirm the existence of a statistics work programme and specify where to find it (or similar document), if available.</i></p>	<p>ground to exercise professional integrity to the fullest extent and is conducive to embedding a professional culture in the statistical office.</p> <p><i>Statistics work programme: Please confirm the existence of a statistics work Programme covering housing price statistics and specify where to find it, if available.</i></p>	<p>The Statistical Office of the Republic of Slovenia (SURS) prepares/updates and releases a statistical work program for price statistics, of which house prices are an important element. The work program generally covers key priorities and other on-going efforts aimed at quality improvement and development of statistics. The work program is available on https://www.stat.si/StatWeb/en/LegislationAndDocuments/StatSurveys</p>
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CoP2 Mandate for data collection	PC2 Mandate for data collection	2.1/2.1	0.1.1	S 7.1	<p>The mandate(s) of the [name of the institution(s)] to collect information for the development, production and dissemination of European Statistics is specified in law.</p> <p><i>Allocation of responsibilities: Please explain the allocation of responsibilities for the production of housing price statistics.</i></p> <p><i>Legal basis: Please confirm the mandate for the production of housing price statistics by referring to the relevant legal act(s) and any other kind of formal agreements.</i></p>	<p><i>Allocation of responsibilities: Please explain the allocation of responsibilities for the production of housing price statistics.</i></p> <p><i>Legal basis: Please confirm the mandate for the production of housing price statistics by referring to the relevant legal act(s) and/or any other kind of formal agreements.</i></p>	<p>SURS has the sole responsibility for the production and dissemination of national house price statistics in Slovenia.</p> <p>The mandate for the production of house price statistics is laid down in the Commission Regulation (EU) No 2016/792 of 11 May 2016 and the Commission Implementing Regulation 2020/1148 of 31 July 2020. Furthermore, there is national regulation.</p>
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CoP6 Impartiality and objectivity	PC6 Impartiality and objectivity	6.6/6.6	1.2.4	<p>Advance notice is given on release calendars and on major revisions or changes in methodologies, source data and techniques.</p> <p><i>Advance release calendar:</i> S9.1 + S9.2 <i>Please confirm the existence of an advance release calendar and provide a link to it.</i></p> <p>S.20.1 <i>Revision policy: Please explain succinctly the revision policy and provide a link to material on the revision policy, if existent.</i></p>	<p><i>1.3.1 Advance release calendar:</i> Please confirm the existence of an advance release calendar for housing price statistics and provide a link to it.</p> <p><i>1.3.2 Revision policy:</i> Please explain succinctly the revision policy for housing price statistics and provide a link to material on the revision policy, if existent.</p>	<p>The release dates for the HPI are announced in public 12 months in advance on the on-line release calendar https://www.stat.si/StatWeb/en/ReleaseCal?idp=31&StDni=</p> <p>Quarterly published HPIs in Slovenia are considered as final. Revised data may occur only in case of essential mistakes discovered after that or due to unplanned revisions resulting from subsequent improvements in the quality of the administrative data source. For such cases a precise procedure is prescribed within the national statistical office, applicable for all fields of statistics. Users are clearly informed about previously published data and corrected ones.</p>
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<i>Statistical Processes</i>	<i>Statistical Processes</i>	<i>CoP/P C</i>	<i>IMF DQAF</i>	<i>SIMS</i>	<i>Question(s)</i>	<i>Housing price statistics</i>	
CoP7 Sound methodology	PC7 Sound methodology	7.1/7.1	2.1	S4.3	Please specify the relevant statistical standards to which the statistics abide. <i>Links/references to existing comprehensive methodological documentation on specific aspects of the national sources and methods can also be provided</i>	2.1.1 <i>General remarks:</i> Specify if housing price statistics follow the methodological recommendations in the Technical Manual and the RPPI Handbook.	The House Price Index (HPI) is compiled in accordance with internationally recognised statistical standards. It follows the methodological principles outlined in the Handbook on Residential Property Price Indices (RPPI) and the Technical Manual on Owner-Occupied Housing, ensuring the comparability of HPI data across Member States.
				S4.4			
			2.2	S4.5			
			2.3	S4.6			
			2.4	S6			
				S12.1	Please specify adherence or deviations from concepts and rules according to international standards and highlight coverage gaps that are of material relevance for the statistics. Please indicate whether actions to	Deviations from concepts, rules, and coverage gaps specific to housing Prices statistics with material impact should be identified.	The HPI covers all new and existing dwellings sold throughout the country and purchased by the households sector. Transaction prices of new dwellings comprise also the 9.5% VAT, while transaction prices of existing dwellings do not include the transaction tax (2.0%). The value of land is included in all transaction prices. From all transactions of dwellings, only market transactions for which all appropriate data on real estate characteristics are available are taken into account. Detailed information on the compilation methodology is available on the website of the Statistical Office of the Republic of Slovenia: https://www.stat.si/StatWeb/File/DocSysFile/8346/04-004-ME.pdf .

					address the deviations and coverage gaps are envisaged.		
CoP8 Appropriate Statistical procedures	PC8 Appropriate Statistical procedures	8.2/8.2	3.1 3.3 3.4	S12.1 S21.1 S21.3 S21.5-6	<p>Please provide a succinct assessment of the robustness of the statistics by elaborating briefly on the relevant sources of information, statistical methods and procedures used across the various frequencies.</p> <p><i>Please provide links/references to existing comprehensive methodological documentation on specific aspects of the national statistical</i></p>	<p><i>Main features: For housing price statistics, this description should start by assessing the soundness of sources of information, procedures and methods used in data compilation of the most relevant frequency (quarterly), e.g. price concept, index</i></p>	<p>The production of HPI statistics is based on administrative data. Dwelling transaction data are provided to the Statistical Office of the Republic of Slovenia (SURS) from an administrative database, namely the Real Estate Market Register, which is managed by the Surveying and Mapping Authority of the Republic of Slovenia (GURS). Transaction data on existing dwellings are collected by the Financial Administration of the Republic of Slovenia (FURS) and subsequently transferred to the Real Estate Market Register, whereas data on transactions involving new dwellings are collected directly by GURS from vendors and stored in the same register.</p> <p>From all transactions of dwellings, only market transactions for which all appropriate data on dwelling characteristics are available are taken into account. Thus all transactions that are related to inheritance and other kinds of transfer of ownership between relatives are eliminated. Transactions of all types of dwellings worth less than EUR 20,000 are eliminated. Mixed transactions where more than five dwellings are being sold within one sales contract and the individual prices cannot be determined are eliminated as well.</p> <p>In the first step, the values of tourist capacities (number of beds) according to municipalities, the value of the regional gross domestic product per capita in the region and the value zone are attributed to residential real estate transactions.</p> <p>The next step is data processing according to the so-called hedonic principle. The core of this approach is multiple regression analysis of real estate characteristics influencing price formation.</p> <p>On the left-hand side of the equation is a dependent variable – a logarithm of the sales price of real estate $\ln p$, and on the right-hand side is first the constant, followed by the term with the sum of regression coefficients for each explanatory</p>

						<p>(independent) variable z (i.e. real estate characteristics), while the last term of the equation is the residue.</p> <p>Each individual type of real estate requires individual regression analyses model, composed of explanatory variables, i.e. property characteristics, which can explain most efficiently properties sale prices variations.</p> <p>Price index calculation is a two-step procedure. First, the hedonic regression analyses based on “characteristics price index” formula are performed for each type of real estate, for each regression model separately. The output regression coefficients are obtained for each individual property characteristics. Regression coefficients of individual real estate characteristics indicate the impact of individual characteristics on the formation of the total real estate price. In the next step regression coefficients are used in the Laspeyres index formula for the final price index calculation. The basis for weighting in the formula is average values of real estate characteristics in the fourth quarter of the previous year.</p> <p>For calculating the price index of newly built family houses “re-pricing index” is used, this is a Jevons-type formula which is part of the hedonic methods of calculating price indices. For calculating average prices of goods, the geometric mean of “raw”, input prices of real estate is used. The “re-pricing index” formula has a characteristic that for balancing the differences in the quality of houses between comparable periods reference data on house characteristics from a much longer period of observation can be used.</p> <p>For calculating the aggregated price index of several types of dwellings, the annual value of transactions of individual types of dwelling is used for weighting.</p>
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				<p><i>procedures. The objective should be to get an overview on how much the statistical output are anchored in actual collected data rather than on estimation methods or similar judgemental inputs.</i></p>	<p>formula, weights, and adjustments. <i>Country specific aspects:</i> Present succinctly information on the collection methods of specific material relevance for house price data. A link could be provided to the national provisions in this respect, if existent.</p>	
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<i>Statistical Output</i>	<i>Statistical Output</i>	<i>CoP/P C</i>	<i>IMF DQA F</i>	<i>SIMS</i>	<i>Question(s)</i>	<i>Housing price statistics</i>	
CoP11 Relevance	PC11 Relevance	11.1- 11.3	0.3	S.14	<p>Please specify briefly why the statistics are relevant by referring to the multiple purposes for which the statistics are used at (i) international, (ii) EU and (iii) national level.</p> <p>References to the statistical legislation and other formal or informal commitments could be sufficient.</p> <p>In addition, if applicable, the outcome of user consultation processes could also be given.</p>	<p>A variety of potential uses of HPIs are provided for consideration:</p> <ul style="list-style-type: none"> - to assess housing affordability over time - a measure of specific price trends - for inflation targeting - to monitor economic imbalances and financial stability - an input for national accounts purposes - an input to economic 	<p>The HPI is a general measure of housing price movements in the country. It is of interest to the general public (in the selling–buying process) and academic researchers, data are asked also by property appraisers, lawyers and courts, as well as by financial institutions for monetary policy (ECB, National Bank, etc.).</p>

						forecasting and analysis - an input for decision making in respect to the housing market	
CoP12 Accuracy and reliability	PC12 Accuracy and reliability (including stability)	12.1/1 2.1	3.5	<p>S 15.1 The analysis should be based on the following indicators (to be compiled by the ECB/Eurostat on a common data vintage) on the reliability of first releases for the relevant series (selected for their material impact and to avoid compensatory effects in the case of balancing items):</p> <ul style="list-style-type: none"> - Directional reliability indicators; - Revisions indicators (e.g. MAPE, MACE 	<p>The accuracy of housing price statistics can be monitored by assessing the methodological soundness of price and weight sources and adherence to the methodological recommendations.</p> <p>Please also provide a detailed description on</p>	<p>HPI calculation in Slovenia is based on full coverage of housing transactions. HPI estimates could therefore be biased only by non-sampling errors which are not easy to quantify. The highest potential source of errors is input data – i.e. dwelling characteristics and transaction prices.</p> <p>Various procedures are in place to ensure that these errors are minimised in the production:</p> <ul style="list-style-type: none"> • Single transacted dwelling characteristics are compared with information about this dwelling stored in the Real Estate Register. Transactions with large discrepancies are analysed in detail and discarded if the discrepancy cannot be explained and corrected properly. • Transaction prices are compared with “taxation prices” provided by the Tax Office (and contained already within input data). In cases where prices differ too much, a detailed inspection is performed and suspicious transactions are discarded. • Average transaction price per square meter of usable space is a starting point for the validation process. • Data cleaning is carried out to remove potential duplicate cases, or cases with missing data. • The minimum and maximum values for house prices and associated variables are investigated and if they are deemed to be suspect, they are removed from the dataset. <p>As far as numerous (transacted) dwelling characteristics are available in Slovenia, HPI calculation is based on the hedonic approach. Through this approach, quality</p>	

				<p>or RMSRE depending on the indicator). and provide a succinct assessment of the accuracy and reliability of the statistics on the basis of the results, with an attempt to provide a relative objective measure, explaining also the main reasons for revisions.</p>	<p>the data sources for both weights and prices, and price collection methods.</p>	<p>adjustment is assured and statistical outliers detection as well.</p>
				<p>Please provide a succinct assessment of the level of the statistical discrepancies (<i>“internal consistency”</i>)</p>		<p>The HPI is produced by calculating quarterly prices using a hedonic regression approach. Separate regression models are constructed for each (elementary) dwelling type incorporating most appropriate property characteristics as price explanatory variables. Then separate regressions are run. Regression coefficients are used in Laspeyres, annually chained price index calculation. Elementary price indices are then aggregated together using transaction values based weights to produce aggregated indices. Therefore, the overall aggregate indices are fully consistent with their component indices.</p>
CoP13 Timelines and punctualit	PC13 Timeliness (including punctualit	13.1 13.4	4.1 S.16	<p>Please specify the timeliness requirements for international and EU</p>	<p><i>3.3.1 National requirements:</i> HPIs may be</p>	<p>The House Price Index (HPI) is published both nationally and internationally in accordance with the requirements set out in the relevant sectoral legislation, no later than 85 days after the end of the reference quarter. The publication schedule for national index releases is available via the release calendar: https://www.stat.si/StatWeb/en/ReleaseCal?idp=31.</p>

y	y)			<p>purposes and the national target publication dates.</p> <p>Please specify punctuality defined as deviations in relation to the timeliness requirements and target dates specified above.</p>	<p>required at national level at different frequencies and timeliness.</p> <p><i>3.3.2 EU and other international requirements:</i> HPIs are released after 100 days from the end of the reference quarter. The release schedule has significantly improved and close to T+1Q at present, which is the target timeliness for this indicator</p>	
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CoP14 Coherence and comparability	PC14 Consistency and comparability	14.1/1 4.1	4.2.1 4.2.2 4.2.3	S17. 2 S 18.1	<p>Please provide a succinct assessment of the results of the consistency check of the statistics with other related domains or data sets with which the statistics must show coherence (“<i>external consistency</i>”).</p> <p>The results should provide a relative objective measure to facilitate cross-country comparability, e.g. be presented as a ratio of the inconsistency between compared statistics, as a percentage of GDP, where appropriate.</p>	<p><i>3.4.1 Consistency with related statistics:</i></p> <p>Housing price estimates may be confronted with other indicators available at the national level, e.g., price valuation by a national appraisal board.</p>	<p>HPIs cannot be directly compared to any other data source in Slovenia. However, the reference survey could be a regular yearly and half-yearly Report on the Slovenian property market published by the Surveying and Mapping Authority of the Republic of Slovenia (GURS). The report also analyzes the number and value of sales of residential real estate, as well as the average price per square metre of usable area of flats and the average sales value of family houses. The report is based on data from the Property Market Register, which are also source of the STAN/ČL statistical survey. The sources differ significantly in the method of calculation and the different definitions of the statistical population.</p>
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				<p>Please provide a succinct assessment of the time series consistency, specifying (i) whether the time series presents breaks and if so explaining the reasons for the breaks; (ii) the length of the series for which back data are consistent; and (iii) whether the statistics are consistent across the various frequencies (monthly/quarterly/annual) where relevant.</p>	<p>3.4.2 “Time” and back data consistency: In the housing price statistics context, specify the following: - breaks in time series and reasons (whether they relate to methodological or other changes) - time periods for which data are consistent - availability of back data and back calculations performed.</p>	<p>The HPI provides a uniform, single, consistent time series of quarterly estimate of the price movement since q1_2007 (link to the website: https://pxweb.stat.si/SiStatDb/pxweb/en/20_Ekonomsko/20_Ekonomsko_04_cene_04190_ICSN/?tablelist=true)</p> <p>For earlier periods, only price index of existing flats is available (until q1_2000). Even though the list of flats characteristics in this first period (2000-2006) is slightly different, we consider the whole time series of price index of existing flats as a consistent time period, without (methodological) breaks (link to the website: https://pxweb.stat.si/SiStatDb/pxweb/en/20_Ekonomsko/20_Ekonomsko_04_cene_90_arhivski_podatki_40_04190_ICSN/?tablelist=true)</p>
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CoP15 Accessibility and Clarity	PC15 Accessibility and Clarity	15.1/1 5.1	5.1.1 5.2.1	S9.3 S 11 S12. 1	Please provide a brief description of the dissemination policy and dissemination means, including links to the data and respective metadata.	Please provide a brief description of the dissemination policy and dissemination means, including links to the data and respective metadata.	<p>The HPI is publicly disseminated to all users as First Release at 10.30am on the publication date in accordance with the release calendar, via the SURS website. A mailing list is maintained, and interested users can log their email address to receive a notification of the First Release via an email from the https://www.stat.si/StatWeb/en/Field/Index/2/31</p> <p>Users have also free of charge access to the HPI time series data stored in the SI-STAT database (link to the website: https://pxweb.stat.si/SiStat/en/Home/GetSearchResultsRedirect?searchQuery=0419001S%20OR%200419005S%20OR%20H184S%20OR%200419020S%20OR%200419015S%20OR%200419030S&searchString=0419001S%20OR%200419005S%20OR%20H184S%20OR%200419020S%20OR%200419015S%20OR%200419030S).</p> <p>Metadata are available from respective publication sites through the “information” bars: http://www.stat.si/StatWeb/Common/PrikaziDokument.ashx?IdDatoteke=8346 and Quality Reports on: https://www.stat.si/StatWeb/en/Methods/QuestionnairesMethodologicalExplanationsQualityReports</p> <p>No microdata access is currently available.</p>
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