



METHODOLOGICAL EXPLANATION

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COMMERCIAL PROPERTY PRICE INDICES

This methodological explanation relates to the data releases:

Commercial property price indices, Slovenia, quarterly (First Release)



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1 PURPOSE

Measurement of Commercial property price movement is the main purpose of the price indices calculation and publication. Price indices calculation is based on the market transactions performed by enterprises or households.

Key statistics are the following:

- Commercial Property Price Index (Offices and Retail).
- Price index of Offices.
- Price index of Retail (retail, restaurants, services).
- The number, value and area of transacted properties.

2 LEGAL FRAMEWORK

- [Annual Programme of Statistical Surveys \(LPSR\) \(only in Slovene\)](#)
- [National Statistics Act \(OJ RS, Ns. 45/95 and 9/01\)](#)

3 UNIT DESCRIBED BY THE PUBLISHED DATA

The observation unit is commercial property, classified into two classes, namely "Office" and "Retail" (comprising retail spaces, restaurants and services real estates). Other types of commercial properties not included in this survey are: industrial buildings, touristic buildings, buildings for transport and communications. The number of transactions of these properties was too low to be able to calculate reliable quarterly price indices for them.

4 SELECTION OF OBSERVATION UNIT

The observation unit is Commercial property sub class "Office" or "Retail", with its transaction price recorded at the sale contract signature date, and property characteristics with impact on sale price.

Full coverage of transactions is used (786 units in 2023). In order to calculate price indices all registered market transactions of commercial property (Office and Retail) are used. The exception are parts of buildings (offices, retail) included in the sale of entire enterprises where offices and retail represent a negligible share of the total value of the transacted property. "Share deals" transactions and "Special purpose entities transactions" are not included as well.

Classification of transacted real estates into Office and Retail is performed on the basis of the "Regulation on models for real estate valuation" (Official Journal of the Republic of Slovenia No 95/2011). Surveying and Mapping Authority of

Slovenia (GURS) is using this regulation for mass generalised valuation of real estates, the Statistical Office is using it for the classification purpose. The Regulation defines precisely which codes of the Classification of types of construction (CC-SI classification) belong to "Office" or "Retail" classes.

5 SOURCES AND METHODS OF DATA COLLECTION

Data are collected quarterly.

Administrative data source, e.i. Real Estate Transfers Register, established at the Surveying and Mapping Authority of Slovenia (GURS).

Transaction data are gathered from an administrative source.

Surveying and Mapping Authority of the Republic of Slovenia (GURS) is the main commercial property transactions data provider for SURS. GURS receives second-hand (used) commercial property transaction data from the Financial Authority of the Republic of Slovenia. Transactions of new commercial properties are collected directly from property vendors by a web questionnaire, set up at GURS. The main purpose of transactions data collection at GURS is calculation of real estate generalized market values. It is performed by the Real Estate Mass Valuation Office within GURS.

6 DEFINITIONS

Commercial property is a building or part of it which is suitable and devoted for commercial activity.

Offices are spaces for business activities of enterprises, banks, insurance companies, post offices. This type of offices represents the bulk of all office transactions. Included are also spaces of public administration, educational and health care institutions, museums, libraries, veterinary clinic, science and researching institutions and religious institutions.

Retail spaces comprise shopping areas of all types and sizes, restaurants and bars, and spaces for all kinds of services (hairdresser, dry cleaning, fitness studio ...).

Number of transactions refers to the number of **sales contracts**. Within one sale contract multiple properties might be transacted, but for a single sale price. Nevertheless it is counted as one transaction.

Quarter refers to the date when the first binding contract for property sale has been signed.

Hedonic method is a price index calculation approach which enables quality adjustment of input prices. It comprises two major steps. In the first one, importance of transacted property characteristics is assessed through the regression analyses. In the next step statistical parameters from the regression

analyses are employed for price index calculation.

7 EXPLANATIONS

7.1 CLASSIFICATIONS

No standard statistical classification is used for data publishing.

7.2 DATA PROCESSING

DATA EDITING

Data were edited by using appropriate systematic and individual corrections. For more, see the general methodological explanations [Statistical data editing](#).

All registered real estate transactions are not appropriate for price index calculation. We use only market transactions for which all relevant data are available. The following types of transactions are discarded in advance: transactions of (small) property shares, transactions between related persons (physical or legal), transactions of uncompleted buildings, transactions of extremely cheap or costly spaces. In this way approximately one quarter of all registered transactions is eliminated in advance.

However in the published data on the number, value and usable floor area of the transactions of all types of transactions mentioned above are normally included (counted).

However in the published quarterly and annual data on the total number, values and usable areas of commercial real estate sold, previously mentioned sales, excluded from the calculation are also taken into account. so that these data give us comprehensive information about the market forTherefore they represent most complete and comprehensive information about the submarket of Office and Retail space in Slovenia.

Commercial property transactions are of two kinds: simple and complex. In simple transactions only one property is included in the sales contract. In complex transactions (composed, mixed) there might be included numerous quite different properties in one sales contract and for one, single contract price. In order to be able to perform regression analyses, such transactions have to be edited according to their components, to become similar to "simple" transactions. This can be done by individual corrections, by breaking up the single sales price. As weights, in such cases the generalized property market values, available in the national Real Estate Register are used.

A similar approach is applied in cases when one extra large building is sold and a considerable part of it is used for non - commercial purposes (garage, residential purposes, hotel).

Individual corrections are needed also for sales contracts where land is transacted together with the commercial building. Most often a land transaction relates to the land underlying the building. In such cases the land value is already integrated in the value of the building. In complex transactions associated land plots transactions represent also gardens, parks, parking spaces, yards, access roads, construction plots. In these cases, land plots associated to building transactions have to be valuated separately and their value subtracted from the single contract price.

WEIGHTING

Weighting was not performed.

SEASONAL ADJUSTMENT

Seasonal adjustment was not performed.

7.3 INDICES

Commercial property price movement is presented by quarterly price indices, separately for Offices and Retail. Base year is 2015. Annual indices, calculated as average of quarterly indices is published as well.

For price indices calculation the hedonic approach was applied. Regression analyses of property physical and location characteristics is the essence of this approach. Usable floor area is the most important price determining characteristics, followed by the location variable "value zone". Boundaries of value zones were determined by GURS by the spatial analyses of transactions values through several years. Latest version (2020) of the territorial breakdown of Slovenia recognizes 418 "Office" polygons and 219 "Retail" polygons. Both are classified into 20 value levels (classes) which differs for Offices and Retail. In urban areas value zones are quite well detailed, out of urban areas are rather coarse. Other property characteristics used in the regression analyses as price explanatory variables are the following: age, gross usable floor area, sale in bankruptcy procedure, micro location quality, location in the basement or ground floor, CC classification code.

For regular price indices calculation the hedonic Rolling year method was applied.

For the calculation of the quarterly aggregate index "Commercial property - total", quarterly sales values of "Office" and "Retail" are used as weights.

For the calculation of the aggregate index "commercial real estate - total", for transactions up to 2023, the sales values of "Office" and "Retail" from the current quarter were used to calculate the weights of the current quarter. From 2023 onwards, the weights for the aggregate index in the current year, for all quarters, are calculated based on the sales values of "Retail" and "Offices" from the previous two years.

7.4 PRECISION

The precision is not calculated.

7.5 OTHER EXPLANATIONS

8 PUBLISHING

- SiStat publication Database: [Prices and inflation](#)-, "Real Estate Prices", "Commercial property price indices". Here quarterly and annual price indices are stored as well as the transaction number, value and total usable floor area.
- First Release: (Prices and inflation) [Real Estate Prices](#) , "Commercial property price indices, Slovenia, quarterly".

9 REVISION OF THE DATA

9.1 PUBLISHING OF PRELIMINARY AND FINAL DATA

Provisional data are not disseminated. Only final data are published.

9.2 FACTORS INFLUENCING COMPARABILITY OVER TIME

There are no breaks in the published time series.

In the Commercial property price indices time series, there are two main periods, namely before and after 2015. There is a slight difference in transaction input data (delivered by the national transaction data provider - GURS). Different was the technical form of recorded transaction data and there was a slightly narrower list of property characteristics available for the regression analyses for price index determination. From 2008 on GURS was constantly improving information about property characteristics data quality and reliability. Regulation on Real Estate Transaction data capturing, adopted in 2013 and fully implemented in 2015 has reassumed all improvements and secured a stable system of transaction data flow.

Most important price determining characteristics such as usable floor area, location and age are of constant quality since the beginning of the time series in 2008. Despite minor differences in transaction data capturing, we concluded that, based on our statistical analyses, all indices in the time series are fully comparable.

10 OTHER METHODOLOGICAL MATERIALS

Methodological materials on SURS's website are available at <https://www.stat.si/statweb/en/Methods/QuestionnairesMethodologicalExplanationsQualityReports>.

- Questionnaire:
 - SURS does not collect data for this survey by using a questionnaire.

Methodological explanations, theme: Prices and Inflation, sub-theme: Real Estate Prices

Eurostat: [Commercial property price indicators: sources, methods and issues](#)