Documentation of statistics for
Rent indices for commercial real estate (Experimental statistics) 2023

1 Introduction

The rent indices for commercial real estate is an experimental statistics for rented property units in the commercial real estate market. The purpose of the statistics is to measure change over time. The statistics is published since 2023 with indices going back to 2021.

2 Statistical presentation

The statistics is a quarterly statistics for the Denmark.

2.1 Data description

The rent indices for commercial real estate shows the change in prices for rented commercial real estate in Denmark for residential, retail, offices and industry units. It is a fixed basket index that measures the quarterly change in rent for property units for rent that are privately owned by persons or businesses.

2.2 Classification system

The rent indices for commercial real estate is group by its commercial use: residential, retail, offices and industry.

2.3 Sector coverage

Commercial real estate in Denmark.

2.4 Statistical concepts and definitions

Base period: A base period serves as a benchmark for future periods, allowing for a reference point for comparison over time. When compiling indices, the base period is typically set to an arbitrary level equal to 100. This makes it easy to calculate a percentage change over time.

Chained index: A chained index measures the change in prices in a collection of price indices for multiple periods, where the calculation of each price index ("link") contains different baskets of goods. Each "link" in a chained index has in addition to the specific basket of goods (and weights) contain its own price reference period, where each new basket of goods (and weights) is used.

Index reference period: The period in which the chained price index is scaled to 100. Typically, the index reference period is for one year. The index reference period affects not only the calculated change in the price index (when one disregards rounding differences in the published index).

2.5 Statistical unit

Property units.

2.6 Statistical population

The statistical population cover commercial real estate used for residential, retail, office or industry purposes.

2.7 Reference area

Denmark.

2.8 Time coverage

The statistics covers the time period from 2021 to the present.

2.9 Base period

2021=100.

2.10 Unit of measure

Index values and percentage change.

2.11 Reference period

The weightreference periode is 4th quarter 2022, the index reference period is 2021 and the price reference period is the previous period.

2.12 Frequency of dissemination

Quarterly.

2.13 Legal acts and other agreements

Not applicable for this statistic. An regulation by the EU is underway and expected to be implemented in 2025.

2.14 Cost and burden

Not relevant for this statistics since data is already collected.

2.15 Comment

Additional information can from the statistics subject page or be obtain by contacting Statistics Denmark.

3 Statistical processing

The rent indices is based on a sample of commercial real estate that are privately rented. The sample covers app. 140,000 property units out of a population of app. 700,000 property units. The index is calculated by the match models method, i.e. the change in rent is measured by comparing the rent of the same property unit between two adjacent periods.

3.1 Source data

The data cover real estate categories residential, retail, offices and industry across most municipalities in Denmark. Data is contains the square meters and yearly rent per square meter for each property unit which is used for to calculate a monthly rent for the property unit. Only the units that exists in two consecutive periods are included in the aggregation of rent to the municipality level of which the change is measured. The rent index is based on a representative sample of privately owned properties in the categories residential, retail, offices and industry that are privately rented. The size of the sample is approximately 140,000 property units (app. 110,000 residential units, 9,000 retail units, 10,000 office units and 7,000 industry units) out of a population of app. 700,000.

3.2 Frequency of data collection

Quarterly.

3.3 Data collection

Data is collected by the Danish Property Federation and DEAS and sent to Statistics Denmark via an electronic business-to-business system.

3.4 Data validation

The received data material is cleaned by checking extreme changes in rent compared to the previous period, and by automatic non-plausible content in variables, e.g. zero square meter, that have static rules, and Statistics Denmark collaborate with the Danish Property Federation and DEAS, to enquire about changes within these set rules.

3.5 Data compilation

The average change in rent is estimated from strata for municipalities and commercial use (residential, retail, offices and industry); in total 392 strata (98 for each type of use). For each stratum the change in rent is calculated comparing the simple average rent of the current period with the simple average rent of the past period. Only property units that exists in both periods are included. From the municipality level, the indices are further aggregated using weights for each municipality for each commercial type. These weights are estimated with the population in each municipality and the simple average rent for the associated region for each commercial use.

3.6 Adjustment

No corrections are made beyond those mentioned in the Data compilation section.

4 Relevance

The statistics is primary used as a business cycle indicator by the European Systemic Risk Board and the European Central Bank. Other uses of the statistics is to shed light on developments of rent in the rental market for commercial real estate.

4.1 User Needs

The rent indices for commercial real estate is used by users who wish to follow the development of rents for commercial real estate, i.e. mainly public institutions and private businesses as well as the wider public.

4.2 User Satisfaction

The most relevant users have the opportunity to provide feedback at an annual meeting for a real estate statistics expert committee.

4.3 Data completeness rate

The rent indices for commercial real estate is estimated in accordance with the recommendations for the estimation of rent indices i the coming regulation on commercial real estate statistics by the EU, and the statistic covers the categories residential, retail, offices and industry.

5 Accuracy and reliability

It is not possible to quantify the statistical uncertainty in the rent indices for commercial real estate because the sample is not randomly drawn from the population, thus there is a potential for a sample bias.. The rent is collected on the first day of the first month of the relevant quarter. Thus, there will be uncertainty associated with changes to the rent within the quarter that are not captured.

5.1 Overall accuracy

The rent for residential units do not usually change significantly within a given quarter because it usually only changes when a new contract is signed or by regulating the rent which usually occurs in January. For the remaining categories, there is a greater degree of uncertainty associated with the statistical accuracy since the rent is subject to change during negotiations of the contract. The overall accuracy is deemed to be good.

5.2 Sampling error

It is not possible to quantify the statistical uncertainty in the rent indices for commercial real estate because the sample is not randomly drawn from the population. For the residential units, the sample consists of app. 110,000 property units out of a population of app. 500,000 units, hence there is a limited sample error. For the remaining categories, the coverage is lower and a higher statistical uncertainty is to be expected. The composition of the sample is compared with the composition of the population on a yearly basis with focus on geography, commercial use and rental conditions.

5.3 Non-sampling error

The sample for the rent indices for commercial real estate is continually evaluated against the Building and Residential register (BBR). In the case where there are errors in BBR, non-sampling error may occur. For categories other than residential, it is not possible to validate whether the property is rented or not and so it is harder to define the true population. It is therefore difficult to assess the true coverage. Improvements of the individual property unit are handled by set rules in the quality correction of the sample data. These rules are based on an evaluation and may contain measurement error with respect to the "true" change in rent where improvements of the property unit are accounted for.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

There are no uncertainty related to the calculation, but there are some uncertainty overall due to the categories retail, offices and industry.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the Revision Policy for Statistics Denmark. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

Only final numbers are published.

6 Timeliness and punctuality

The statistic is published within 85 days from the quarter end. The statistic is published without delay with respect to the announced time of publication.

6.1 Timeliness and time lag - final results

The statistic for each quarter is published within 85 days from the quarters end. Only final numbers are published.

6.2 Punctuality

The statistics is published without delay with respect to the announced time of publication.

7 Comparability

The calculation is based on a uniform basis since 2021. The statistics is not necessary comparable with other statistics that cover the same population due to differences in calculation method.

7.1 Comparability - geographical

The statistic is comparable with similar statistics in other European countries under the condition that they comply with the coming EU regulation for commercial real estate statistics.

7.2 Comparability over time

The index is calculated on a uniform basis since 2021.

7.3 Coherence - cross domain

The Danish Property Federation publishes a rent indices on the same data for the same commercial uses. However, these statistics are calculated on the basis of different data cleaning criteria and calculation method, hence the results may deviate.

7.4 Coherence - internal

The data is consistent.

8 Accessibility and clarity

The statistics is published under the subject of Rent indices for housing.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.2 Release calendar access

The Release Calender can be accessed on our English website: [Release Calender](#).

8.4 News release

No other news associated with this statistics is published by Statistics Denmark.

8.5 Publications

The statistic is not included in any other publication by Statistics Denmark.

8.6 On-line database

The statistics is published in the Statbank under the subject Rent indices for housing table: ERHEJD1: Rent indices for commercial real estate by category and unit.

8.7 Micro-data access

Micro-data is inaccessible to use beyond this statistic.

8.8 Other

Not relevant for this statistics.

8.9 Confidentiality - policy

Statistics Denmark's data confidentiality policy, which includes the set of rules and guidelines, that Statistics Denmark uses when handling the various information about Danes and Danish businesses, is the basis for the production of this statistic.

8.10 Confidentiality - data treatment

The statistic is published at an aggregated level that do not require further discretionary actions.

8.11 Documentation on methodology

There are no other documents on method for this statistic.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative responsibility of this statistic is with the office of Prices and Consumption. The responsible for the statistic is Sigrid Krogstrup Jensen, tlf. +45 39 17 34 56, e-mail: sij@dst.dk.

9.1 Contact organisation

Statistics Denmark

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N/A