

Documentation of statistics for Rent indices for housing 2021

1 Introduction

The purpose of the statistic Rent indices for housing is to measure the development in rent (housing). The statistic covers the years from 2021.

2 Statistical presentation

The statistic is a quarterly statistics who show the development in rents before rent subsidies.

2.1 Data description

The Rent indices for housing is a measure or indicator for the price development for rented dwellings. The rent indices are based on a sample of privately owned rented dwellings, social rental housing and cooperative dwellings. The rent development for the social rental housing is based on administrative data from The National Building Fund (Landsbyggefonden) and thus covers the entire population of social rental housing. Privately owned rented dwellings is covered by a sample of approx. 110.000 dwellings out of a population of approx. 500.000 privately owned rented dwellings. Cooperative dwellings is covered by a sample of approx. 600 dwellings. Social rental housing and private rental housing each amount to almost half of the total rental housing market whereas cooperative dwellings account for approximately 10 percent. The annually price development is compiled as a ratio between the average rent of the respective year and the average rent of the previous year for dwellings with a rent in both periods.

2.2 Classification system

These statistics are grouped by [region](#) and by category of real property, i.e.:

- Privately owned housing
- Social housing
- Cooperative housing

2.3 Sector coverage

Not relevant for these statistics.

2.4 Statistical concepts and definitions

Price index: A price index is used to track relative price changes. The price index measure average price changes between two time periods by comparing the price index in the two periods.

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.

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).

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.

2.5 Statistical unit

Rental housing rented out to households and cooperative dwellings.

2.6 Statistical population

Rented dwellings in Denmark.

2.7 Reference area

Denmark.

2.8 Time coverage

These statistics cover the time period from 2021 and onwards.

2.9 Base period

2021=100

2.10 Unit of measure

Index values and percentage changes.

2.11 Reference period

The statistics describe the price development for the rents in January, April, July and October.

2.12 Frequency of dissemination

Quarterly.

2.13 Legal acts and other agreements

The consumer price index is compiled in pursuance of section 8 of the Act on Statistics Denmark and Consolidated Act on calculation of an index of net retail prices.

Eurostat is developing commercial real estate indicators (CREI), including rental indices for residential rental units, which is expected to result in a regulation.

2.14 Cost and burden

There are no data collection for social housing and privately owned dwellings, since data for those part are received from The National Building Fund (Landsbyggefonden) and The Danish Property Federation respectively. For cooperative housing we have a yearly data collection of approximately 600 dwellings.

2.15 Comment

For further information please contact Statistics Denmark directly.

3 Statistical processing

The Rent indices for housing are based on a sample of privately owned rented dwellings, social rental housing and cooperative dwellings. The rent development for the social rental housing is based on administrative data from The National Building Fund (Landsbyggefonden) and thus covers the entire population of social rental housing. Privately owned rented dwellings is covered by a sample of approx. 110.000 dwellings out of a population of approx. 500.000 privately owned rented dwellings. Cooperative dwellings is covered by a sample of approx. 600 dwellings. Social rental housing and private rental housing each amount to almost half of the total rental housing market whereas cooperative dwellings account for approx. 10 per cent.

3.1 Source data

The rent survey is based on a sample of privately owned rented dwellings, social rental housing and cooperative dwellings. The rent development for the social rental housing is based on administrative data from The National Building Fund (Landsbyggefonden) and thus covers the entire population of social rental housing. Privately owned rented dwellings are covered by a sample of approx. 110.000 dwellings out of a population of approx. 500.000 privately owned rented dwellings. Cooperative dwellings are covered by a sample of approx. 600 dwellings. The same rental dwellings are included in the sample over time (a panel) as far as possible, but the sample is updated on a continuous basis with newly built rental dwellings to ensure that the sample continues to reflect the population.

3.2 Frequency of data collection

Quarterly. Cooperative housing does only have a yearly collection.

3.3 Data collection

Data collection for the cooperative dwellings is based on yearly questionnaires and the questionnaires are sent to the owners or administrators of the dwellings. The information asked for is:

- The monthly rent, excluding heating and other special services (for example, garage space)
- In cases of rent changes as a result of improvement of the dwelling, the respondent is asked to inform the nature of the improvement and the share of the rent change that is caused by the improvement

The administrative data for social rental housing is received from The National Building Fund (Landsbyggefonden) while rents for the privately owned rented dwellings is received from The Danish Property Federation (trade association of the Danish property industry - EjendomDanmark).

3.4 Data validation

The data material received is examined for errors, both automatically and manually. In the automatic process observations are being flagged for further inspection if the price change compared with last period is more than plus or minus 10 percent. The observations are checked by contacting the data respondents. In the administrative data for social rental housing, non-plausible observations are removed mechanically when they fall outside pre-determined criteria. For the data for the private market data are treated the same way and we have a cooperation with The Danish Property Federation where we can ask for changes within our predetermined criteria.

3.5 Data compilation

The average rent development is calculated by dividing the rental housing by strata for resp. municipalities and type (private, public rental housing or cooperative dwellings); a total of almost 300 strata. Within each stratum, rent development is calculated by dividing an unweighted average by the current rent of the rental dwellings with an unweighted average of the rent of the rental dwellings in the previous period. Only rental homes where a rent has been registered in both periods are included. On the basis of the indices on municipality and type the indices on the different groupings is calculated, where the rent development in the 300 strata are weighted together with weights. The weights are based on estimated total rental sums in the population of rental housing within each stratum.

3.6 Adjustment

In calculating a price index it is assumed that the baskets of goods that are compared are identical, also with respect to the quality of the goods. Consequently, in the case of changes in quality the prices should, in principle, be adjusted for this. In the development of rents statistic quality improvements in the cooperative dwellings in the sample are handled by using values reported by the respondents for a given improvement and multiplying this value with a fixed percentage rate depending on the type of improvement. The improvements can be, for example, the addition of a balcony. The new calculated value is subtracted out of the rent increase before the total average rent increase is calculated. For the public rental housing based on administrative data and for the privately owned rented dwellings, it is not possible to directly correct for improvements in the rental housing.

4 Relevance

The statistic measures the development in rent (housing).

4.1 User Needs

The rent indices for housing is used by users there wish to follow the change in rent ie. a large number of public and private companies and the interested public in assessment of the economic development.

4.2 User Satisfaction

Feedback is given at a yearly meeting held with the most important users.

4.3 Data completeness rate

The rent development is calculated in accordance with recommendations regarding the EU harmonized index of consumer prices (HICP).

5 Accuracy and reliability

It is not possible to quantify the uncertainty in the rent indices for housing, as the sample behind is not randomly drawn . However, for social housing, the statistics are based on the population of social housing, which is why there is no uncertainty here. For the private rental homes, the sample consists of approx. 110,000 rental homes out of a population of approx. 500,000 rental housing, so here there is limited sample uncertainty. Cooperative dwellings are covered by a sample of approx. 600 dwellings, so here there is sample uncertainty.

5.1 Overall accuracy

It is not possible to quantify the uncertainty in the rent indices for housing, as the sample behind is not randomly drawn . However, for social housing, the statistics are based on the population of social housing, which is why there is no uncertainty here. For the private rental homes, the sample consists of approx. 140,000 rental homes out of a population of approx. 500,000 rental housing, so here there is limited sample uncertainty. Cooperative dwellings are covered by a sample of approx. 600 dwellings, so here there is sample uncertainty.

For the overall index on country level the uncertainty is assessed to be limited. The more detailed the indices are shown the more uncertain are the indices.

5.2 Sampling error

It is not possible to quantify the uncertainty in the rent indices for housing, as the sample behind is not randomly drawn. However, for social housing, the statistics are based on the population of social housing, which is why there is no uncertainty here. For the private rental homes, the sample consists of approx. 110,000 rental homes out of a population of approx. 500,000 rental housing, so here there is limited sample uncertainty. Cooperative dwellings are covered by a sample of approx. 600 dwellings, so here there is sample uncertainty.

The sample is compared with the population of rented dwellings once a year with an eye on e.g. geographical distribution, type of housing and ownership of the rented dwellings (private, social etc.).

5.3 Non-sampling error

The sample behind the rent indices for housing is kept up to date against BBR. To the extent that registrations in BBR are incorrect, it could result in coverage errors. Improvements to the individual lease are handled in accordance with fixed rules for so-called quality correction. These rules are based on estimates and may give measurement errors in relation to the real "pure" rent development, where the significance of improvements for the rent is subtracted from the calculated rent developments.

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 calculations, but overall the uncertainty is assessed to be limited.

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 figures are published.

6 Timeliness and punctuality

The consumer price index including the rents index is published on the 10th or the first working day thereafter, following the month in which the data was collected. The statistics are published without delay in relation to the scheduled date.

6.1 Timeliness and time lag - final results

The consumer price index including the rents index is published on the 15th or the first working day thereafter, following the month in which the data was collected. The most recent rents index based on rents in January, April, July or October is included in the consumer price index regarding February, May, August or November and is therefore published the 15th or the first coming working day thereafter the following month.

6.2 Punctuality

The statistics are published without delay in relation to the scheduled date.

7 Comparability

The statistics have been compiled in the same way since 2021. The statistics are not necessarily comparable with other statistics within the same area due to different methods.

7.1 Comparability - geographical

If the overall national index is compared with the rent development in the consumer price index (CPI) and the EU harmonized consumer price index (HICP), the developments in 2021 and 2022 will not necessarily be identical. This is due to several conditions. 1. Following the calculation of the rent development for CPI and HICP, we have received additional data for 2021 for the private part of the rental housing market. This new data are used in the calculation of this statistics. 2. This statistic are calculated quarterly for 2021 and onwards, which could also cause some differences in relation to the rent development included in CPI and HICP, as this is only calculated quarterly from 2022. 3. Differences in the price reference periods will cause differences in the developments between the rent development in this statistic and the rent development calculated for the CPI and HICP.

From 2023, the developments in house rents in the CPI and HICP will be identical to the developments calculated in this statistic.

If the rent developments for the social housing part of the rental housing market in this statistic are compared with the publication from The National Building Fund (Landsbyggefonden) on rent statistics, where developments can also be found, the reported developments will not be identical, as there is difference in calculation method.

7.2 Comparability over time

The statistics have been compiled in the same way since 2021. The statistics are quarterly with reference period January, April, July and October.

7.3 Coherence - cross domain

Comparisons of this statistics with the rent statistics published by The National Building Fund will find that the resulting statistics differ due to differences in calculation methods.

7.4 Coherence - internal

The data are consistent.

8 Accessibility and clarity

These statistics are published in the StatBank under [rent and rental vacancy](#).

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

8.4 News release

Not relevant for these statistics.

8.5 Publications

Not relevant for these statistics.

8.6 On-line database

These statistics are published in the StatBank under [rent and rental vacancy](#) in the table:

- [HUS1](#): Rent indices for housing by region, category of real property and unit

8.7 Micro-data access

Not relevant for these statistics.

8.8 Other

Not relevant for these statistics.

8.9 Confidentiality - policy

The procedures are in accordance with Statistics Denmark's policy on confidentiality. Data Confidentiality Policy

8.10 Confidentiality - data treatment

It is not necessary to apply confidentiality at the chosen level of publication.

8.11 Documentation on methodology

Not relevant for these statistics.

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 placement of these statistics is in the division of Prices and Consumption, Economic Statistics. The contact person is Martin Sædholm Nielsen, tel.: + 45 2449 7281 and e-mail: MNE@dst.dk.