

Documentation of statistics for Development in Rents (housing) 2022

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# **1** Introduction

The statistics measure the development in rent (housing). The survey has been carried out since the 1950s.

# **2 Statistical presentation**

The statistics show the development in rents before and after rent subsidies. The average development in rent before rent subsidies is used for the consumer price index and the average development in rent after rent subsidies is used for the index of net prices.

## 2.1 Data description

The statistic is used in calculating sub-indices in the consumer price index, the index of net retail prices and the harmonized index of consumer prices (HICP). Development in rent is used as an indicator for price development for rented dwellings and for regulating (indexation) rent contracts. The average development in rent before rent subsidies is used for the consumer price index and the average development in rent after rent subsidies is used for the index of net retail prices with the rent subsidies deducted.

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 Landsbyggefonden and thus covers the entire population of social rental housing. Privately owned rented dwellings are covered by a sample of approx. 110,000 (only approx. 85,000 for 1. quarter of 2022) dwellings out of a population of approx. 500,000 privately owned rented dwellings. Cooperative dwellings are covered by a yearly 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..

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. The average development in rents after rent subsidies is compiled in the same way but with a deduction of the average subsidy.

### 2.2 Classification system

None.

Is placed in group 04.1-2 "Rents" according to ECOICOP (European Classification of Individual Consumption According to Purpose) in the consumer price index, in the price index of net retail prices and the harmonized index of consumer prices (HICP).

### 2.3 Sector coverage

The rental sector.



### 2.4 Statistical concepts and definitions

Index of Development in rents: Explanations of other concepts regarding index calculations can be found in the documentation (in Danish) at the following link: <u>Index calculations</u>.

Rented Dwelling: The population consists of rented flats and houses and cooperative housing. The survey concerns the rent for a particular dwelling.

# 2.5 Statistical unit

Rental housing rented out to households and cooperative dwellings.

### 2.6 Statistical population

All dwellings rented by private households in Denmark and cooperative dwellings.

### 2.7 Reference area

Denmark.

#### 2.8 Time coverage

2000-

### 2.9 Base period

2015=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.

There are no European Union regulations relating to the development in rents (housing).



# 2.14 Cost and burden

The response burden is estimated to 190 hours eller 0.05 mill. Dkr.

# 2.15 Comment

Other information is not available.

# **3 Statistical processing**

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 Landsbyggefonden and thus covers the entire population of social rental housing. Privately owned rented dwellings are covered by a sample of approx. 110,000 (only approx. 85,000 for 1. quarter of 2022) for dwellings out of a population of approx. 500,000 privately owned rented dwellings are covered by a sample of approx. 600 dwellings.

Social rental housing and private rental housing as well as cooperative 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 Landsbyggefonden and thus covers the entire population of social rental housing. Privately owned rented dwellings are covered by a sample of approx. 110,000 (only approx. 85,000 for 1. quarter of 2022) 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 with newly built rental dwellings every year to ensure that the sample continues to reflect the population.

Since 2020, the calculation of the rent development in public housing has been based on administrative data from Landsbyggefonden, while the sample for privately owned rental housing was increased significantly from approx. 1100 dwellings to 110,000 dwellings in 2022. In 2022, the survey also changed from being calculated annually to quarterly.

# 3.2 Frequency of data collection

Quarterly.



## 3.3 Data collection

Data collection for the cooperative dwellings is based on 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 flat, 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 Landsbyggefonden while rents for the privately owned rented dwellings is received from The Danish Property Federation (trade association of the Danish property industry).

### 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 year 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.

### 3.5 Data compilation

The average rent development is calculated by dividing the rental housing by strata for resp. municipalities and 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. Finally, a total index is calculated, where the rent development in the 300 strata is weighted together with weights. The weights are based on estimated total rental sums in the population of rental housing within each stratum.

The rent development after rent subsidies is calculated by making a deduction for the average rent subsidy in the calculated average rent before calculating the rent development.



## 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 or a new kitchen. 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).

The statistic is primarily used in calculating sub-indices in the consumer price index, the index of net retail prices and the harmonized index of consumer prices (HICP). Development in rent is used as an indicator for price development for rented dwellings and for regulating (indexation) rent contracts.s.

### 4.1 User Needs

The rent survey is used by users of the consumer and net price index, i.e. a large number of public and private companies and the interested public in assessment of the economic development. The index is also used to regulate (index) rents.

### 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 survey, 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 (only approx. 85,000 for 1. quarter 2022) 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 survey, 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 (only approx. 85,000 for 1. quarter of 2022) 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.

Overall, the uncertainty is assessed to be limited.

## 5.2 Sampling error

It is not possible to quantify the uncertainty in the rent survey, 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 (only 85,000 for 1. quarter of 2022) 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 survey 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. In terms of timeliness and punctuality as well as comparability both over time and internationally, the rent survey is of high quality.

## 5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. 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 10th 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 10th 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 1982. The rent survey is directly comparable with similar rent-indices from other countries' EU harmonized consumer price index (HICP).

### 7.1 Comparability - geographical

The sub index of rents (COICOP group 04.1-2) under the harmonized index of consumer prices (HICP) is directly comparable with the same sub indices from other countries HICP's.



## 7.2 Comparability over time

The statistics have been compiled in the same way since 1982.

Since 2002 and until 2021 the reference period for the collected rents is January. Since 2022 the statistic has been quarterly with reference period January, April, July and October.

- In the period April 1994 to October 1998: end of April and end of October.
- In the period October 1998 to January 1999: end of October and end of January.
- In the period January 1999 to January 2002: end of January and end of July.

After a new sample was drawn in 1982 the information has been gathered by questionnaires sent to the owners or administrators of the dwellings.

Since 2020 the calculation of the rent development in social housing has been based on administrative data from Landsbyggefonden, while the sample for privately owned rental housing was increased significantly from approx. 1100 dwellings to 140,000 dwellings in 2022.

#### 7.3 Coherence - cross domain

There are no other statistics covering this area.

#### 7.4 Coherence - internal

The data are consistent.

# 8 Accessibility and clarity

Figures for the rent survey can be found in the statistics bank under group 04.1-2 under resp. the consumer price index, the net price index and the EU Harmonized Index of Consumer Prices (HICP).

#### 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: <u>Release Calender</u>.

#### 8.4 News release

An independent News from Statistics Denmark is not published for these statistics.

#### 8.5 Publications

Not relevant for these statistics.

#### 8.6 On-line database

Figures for the rent survey can be found in the statistics bank under group 04.1-2 under resp. the consumer price index, the net price index and the EU Harmonized Index of Consumer Prices (HICP).

- PRIS111: Consumer price index (2015=100) by commodity group and unit
- PRIS114: Net price index (2015=100) by commodity group and unit
- <u>PRIS117</u>: EU-harmonized consumer price index (HICP) (2015=100) by commodity group and unit

#### 8.7 Micro-data access

Access to micro data is not available.

#### 8.8 Other

Not relevant for these statistics.

#### 8.9 Confidentiality - policy

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

### 8.10 Confidentiality - data treatment

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

#### 8.11 Documentation on methodology

A full methodological description regarding the consumer price index is available on <u>FPI-Documentation</u> (in Danish only) under Dokumentation. This briefly describes the sub index regarding rents.

#### 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. The contact person is Martin Sædholm Nielsen, tel.: + 45 2449 7281, and e-mail: MNE@dst.dk.