STATISTICS DENMARK

Documentation of statistics for Producer price index for renovation and maintenance 2025

Statistics Denmark
Sankt Kjelds Plads 11
DK 2100 København Ø

STATISTICS DENMARK

1 Introduction

The purpose of the Producer price index for renovation and maintenance is to track the development of producer prices of renovation and maintenance tasks performed by Danish construction and craftsman companies. This covers the prices of services incl. the producer's direct costs and their profits, but excl. VAT. The statistics has been produced since 2017 with data for 2014 and onwards. It is used primarily to evaluate price developments in the construction industry, and to regulate prices and contracts.

2 Statistical presentation

The producer price index for renovation and maintenance shows the yearly trends in the prices related to housing in Denmark. The prices are related to first commercial transactions. The first commercial transaction refers to the transaction between the requester and the producer, excl. VAT. The index reflects price changes for the production of refurbishment and maintenance services, i.e. the price the household pays a company to perform a standard refurbishment and maintenance task, such as a carpenter changing a window frame or a plumber installing a toilet.

2.1 Data description

The purpose of the Producer price index for renovation and maintenance is to track changes in prices of refurbishment and maintenance tasks performed by Danish construction and craftsman companies. The price concept is the price of a refurbishment or maintenance task incl. the producer's costs and profits, but excl. VAT and further costs not directly related to the task. The statistics is published on a yearly basis and both indices and percent developments are provided.

2.2 Classification system

The index covers refurbishment and maintenance work by firms in NACE Rev. 2 Section F (construction). The activities are grouped into so-called CPA-groups, in accordance with the Statistical Classification of Products by Activity in the European Economic Community, 2008 version. For the Producer price index for renovation and maintenance the following groupings are published:

- Electrical installation
- Plumbing, heat and air-conditioning installation
- Carpentry
- Building completion
- Roofing
- Bricklaying

2.3 Sector coverage

This statistics covers activities related to refurbishment and maintenance in Denmark.

2.4 Statistical concepts and definitions

Producer price: The price of a produced commodity incl. the producer's direct production costs and profits and excl. VAT and additional costs not directly related to the production of the commodity.

STATISTICS DENMARK

2.5 Statistical unit

Prices.

2.6 Statistical population

The target population for the Producer price index for renovation and maintenance is all refurbishment and maintenance task performed in Denmark.

2.7 Reference area

Denmark.

2.8 Time coverage

The statistics cover the time period from 2014 and onwards.

2.9 Base period

2015 = 100.

2.10 Unit of measure

Index and percentage change.

2.11 Reference period

The statistics refer to the calendar year.

2.12 Frequency of dissemination

Yearly.

2.13 Legal acts and other agreements

The legal authority to collect data is provided by the Act on Statistics Denmark, section 8.

2.14 Cost and burden

The response burden has yet to be calculated, but it is assessed that the reporting units spend less than one hour on their response.

2.15 Comment

Further information is available at the subject page or by contacting Statistics Denmark.

Statistics Denmark
Sankt Kjelds Plads 11
DK 2100 København Ø

STATISTICS DENMARK

3 Statistical processing

For the Producer price index for renovation and maintenance approximately 3,000 prices are collected from selected companies in Denmark. Prices are collected digitally. The index is calculated in a hierarchical system, where the first calculation is made on the most detailed level (basic indices). The detailed indices are subsequently weighted together to form aggregated sub indices, which are used to calculate the main index.

3.1 Source data

The Producer price index for renovation and maintenance is calculated on the basis of prices reported by select companies. The sample is selected using a top-down approach, where the largest companies, based on turnover, are selected for price reporting.

3.2 Frequency of data collection

Yearly.

3.3 Data collection

For the Producer price index for renovation and maintenance the prices are collected through an electronic reporting form via Business in Denmark, which is sent to relevant contacts within the selected companies.

3.4 Data validation

The first validation of the reported prices takes place when data arrive to Statistics Denmark. Here they are auto tested for unusual developments. If the change in prices is greater than a predetermined threshold value, then these prices will be checked manually by the staff and will only be accepted if the reporting company can verify the change. When all prices are in the system, a validation report will be generated. This report includes information on all price changes and measures the effect of these on the elementary aggregates. The final validation is a qualitative inspection of the calculated index tables.

3.5 Data compilation

The Producer price index for renovation and maintenance is calculated in a hierarchical system, where the collected prices are divided into groups identified by kind of activity. These groups are then aggregated into so-called elementary aggregates for which basic prices can be calculated. The development of basic prices between two periods is used to calculate basic indices, which are weighted together to form aggregated price indices, so-called sub indices. The sub indices are then weighed together to calculate the main index. The weight basis is based in information from the Danish Technological Institute on the refurbishment activity of Danish craftsmanship companies.

3.6 Adjustment

No corrections are made beyond what has already been described.

STATISTICS DENMARK

4 Relevance

Producer price index for renovation and maintenance is used primarily to evaluate price developments in the construction industry, and to regulate prices and contracts. It is also used as a deflator in the Danish National Accounts for constant price calculations. User satisfaction levels have not been determined.

4.1 User Needs

Producer price index for renovation and maintenance is used primarily to evaluate price developments in the construction industry, and to regulate prices and contracts. It is also used as a deflator in the Danish National Accounts for constant price calculations.

4.2 User Satisfaction

User satisfaction has not been measured.

4.3 Data completeness rate

The statistics fulfill the current requirements.

5 Accuracy and reliability

The statistics is based on 3,000 prices from six craftsman trades. Prices are reported by businesses, which are selected according to turnover to achieve the highest possible coverage. As there are large differences between the trades, they are treated separately with separate samples. It is estimated that each trade has a coverage of at least 30 pct., and that the price development in each sample represents the development in the population at large.

As the samples are not randomly selected the sampling error cannot be measured. However, overall, the index is assessed to be of high quality.

5.1 Overall accuracy

The producer price index for renovation and maintenance is based on 3,000 prices from six activity groups (electrical installation, plumbing, heat and air-conditioning installation, carpentry, painting, roofing and bricklaying). For each trade the largest businesses, according to turnover, are selected for reporting using a top-down approach to achieve the highest possible coverage. For each trade there is a coverage of at least 30 pct. Price developments from the larger businesses weigh more than price developments from smaller businesses. Each of the businesses are requested to select their most representative activities, i.e. the services sold most often within a given trade.

The yearly non-response rate is minimal and is not considered to be a significant source of error. It is thus assumed that the price development in the sampled businesses represents the price development of the entire population within each trade.

The weights used for calculating the index is based on information from the Danish Technological Institute about the refurbishment and maintenance activities performed by construction and craftsmanship businesses.

5.2 Sampling error

The sample for each industry for the Producer price index for renovation and maintenance are collected to achieve as high turnover coverage as possible. As the sample is not selected randomly, a measurement of sample error cannot be made. The collected prices represents the prices on unique activities which are used in a weighted aggregation of the index. The sample error is therefore only related to the possibility that the sample population experience a different trend in the price development than the total population. This issue is not expected to be a significant problem.

5.3 Non-sampling error

The statistics is based on approximately 3,000 prices for six trades within the construction industry. The statistics is calculated using the construction tasks and their respective prices reported by the businesses. All tasks represent activity codes selected within each trade. For each activity code the coverage is deemed to be sufficient to ensure representation for the refurbishment and maintenance tasks measured in the index. It is estimated that only in very limited instances do the reported prices cover beyond what is asked for.

There is a risk that the reporting businesses incorrectly keep their price for a given renovation activity fixed over a longer period of time. These types of issues are alleviated by continuously investigating whether prices, that have remained fixed for the past 13 months, and then contacting the reporting businesses in question.

Measurement error can occur if the reporting units make mistakes during the reporting or if the have difficulties when pricing their activities. Mistakes are corrected if found by Statistics Denmark, whilst the reporting businesses are asked to give their best estimate of the price as they are the ones who have the best prerequisites for doing so. This is not considered to be a significant source of error.

Index calculation is automated and performed in a dedicated index calculation system. Therefore, the possibility of calculation errors is considered to be insignificant.

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

A comprehensive quality assessment is based on a combination of assessing turnover coverage, the number of companies and prices in the sample and the quality of the collected prices, including the pricing methods used. Overall the Producer price index for renovation and maintenance is assessed to be of a high quality and representative for the price development of the activities in question performed by Danish craftsmen. The assessment rests upon the data collection that the index is based on. This data contains 3,000 prices divided onto 29 activity codes. Within each trade, the largest businesses, according to turnover, are selected (top down) to achieve the highest turnover coverage possible.

The trades that are covered by the index are quite different, especially with regards to the number of businesses. In trades with very few businesses and monopoly-like conditions it takes relatively few reporting businesses to get a high coverage. In trades with many business, a higher number of reporting businesses are required to achieve the coverage needed. Thus, a benchmark for the quality of the sample across all trades cannot be made. The quality of the statistic is being continually monitored and improvements are made where it is assessed that the quality can be levered. Conducting quality work includes replacing companies, increasing the number of respondents, asking existing respondents to report more prices, or to use better pricing methods to define and calculate prices.

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

No revisions are performed. Only final values are published.

6 Timeliness and punctuality

The statistics are published yearly, approximately three months after the end of the reference period. Publications are released on time according to announced release times.

6.1 Timeliness and time lag - final results

The statistics are published yearly, approximately three month after the end of the reference period.

6.2 Punctuality

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

7 Comparability

The statistics follows international standards and is therefore comparable with similar statistics from other European countries. A time series from 2014 until today is available.

7.1 Comparability - geographical

The statistics follows international standards and is therefore comparable with similar statistics from other European countries.

7.2 Comparability over time

The statistics has been produced in its current form since 2017 and contains a time series from 2014 until today.

7.3 Coherence - cross domain

The statistic is related to the Construction cost index for residential buildings, which however uses a different price concept.

7.4 Coherence - internal

Not relevant for this statistics.

8 Accessibility and clarity

Producer price index for renovation and maintenance is published in the StatBank under the subject Producer price index and on the subject page Indices for the construction sector. In the StatBank the statistic is listed as PRIS91.

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

The statistic is included in the press release Nyt fra Danmarks Statistik - Producentprisindeks for byggeri, which is only available in Danish.

8.5 Publications

None.

8.6 On-line database

The statistics are published in the StatBank under the subject Producer price index in the following tables:

- PRIS91: Producer price index for renovation and maintenance by type of work, unit and time

8.7 Micro-data access

Micro-data is not disseminated.

8.8 Other

None.

8.9 Confidentiality - policy

Data Confidentiality Policy for Statistics Denmark is applied.

8.10 Confidentiality - data treatment

Producer price index is only published on an aggregated level, thus discretion does not apply for this statistics.

8.11 Documentation on methodology

There is no methodological documents available.

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 Peter Fink-Jensen, tel.: + 45 2134 7692, and e-mail: PFJ@dst.dk.