

Declarations of Contents, Construction cost index for residential buildings

0 Administrative Information about the Statistical Product

0.1 Name

Construction cost index for residential buildings

0.2 Heading

Construction and housing

0.3 Responsible Authority, Office, Person, etc.

Short term statistics

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0.4 Purpose and History

The purpose of the construction cost index for residential construction is to measure the development in construction cost divided into material and labour costs.

The construction cost index replaced in 1989 the former construction cost indices for 1 dwelling residential buildings and 2 and more residential buildings.

The construction costs index for residential buildings was carried out for the first time in 1920.

The Construction cost index for residential buildings has been replaced by three new construction cost indices for residential buildings from the first quarter of 2003. At www.dst.dk/byggeindeks you will find a description of the new indices and how you may use them in connection with the previous index. The description is in Danish. For further information about the new indices in English, please contact Mrs. Birgitte Lundstrøm, tel. 39173088, e-mail:bls@dst.dk This declaration of contents is not updated in the future.

0.5 Users and Application

The construction costs index is primarily used for adjusting long-term contracts.

0.6 Sources

Information on material costs and labour costs is obtained from professional cost surveyors.

0.7 Legal Authority to Collect Data

Data are collected in accordance with the Act on Statistics Denmark.

0.8 Response burden

Is irrelevant to the statistics.

0.9 EU Regulation

Council Regulation (EC) No 1165/98

1 Contents

1.1 Description of Contents

The construction costs index is a weighted aggregate of 10 cost indices for 10 trades in the construction industry. These 10 indices are also weighted to a cost index for carcass and a cost index for building completion.

The 10 trade indices are weighted aggregate of indices for material costs and labour costs:

Concrete work/underground

Concrete structures

Bricklayers

Carpenters

Joiners

Painters

Heating, sanitation, etc.

Plumbers

Electricians

Fixtures

The construction costs index includes two special indices too, an index for glazier and an index for heavy concrete structures.

1.2 Statistical Concepts

The construction costs index is based on an actual building project. The building project is part of a larger construction project consisting of 173 dwellings and 22 dwellings for young people. The buildings are terraced houses in one- and two levels consisting of 2-6 dwellings. There are 11 different types of dwellings and the average floor area is 81 square metres.

The index is calculated according to Laspeyres formula. The construction cost index is a weighted aggregate of indices for material costs and labour costs. The material prices are calculated on the basis of list prices or output prices excluding general discounts such as quantity discounts. Cash discounts are not deducted.

The labour costs are calculated on the basis of collective agreement wages, plus compulsory employers' contributions e.g. industrial injury insurance, and wage earners' supplementary pension. Subsidies to employers for the payment of these contributions are deducted.

Profits, fees and VAT are not included in the index.

Employers' payments of employees' first and second days of unemployment are not included in the index.

The construction costs index is calculated for 10 trades in the construction industry, a construction cost index for carcass and an index for building completion.

The 10 trade indices are weighted aggregates of indices for material costs and labour costs:

Concrete work/underground

Concrete structures

Bricklayers

Carpenters

Joiners

Painters

Heating, sanitation, etc.

Plumbers

Electricians

Fixtures

The construction cost index for building of carcass and the index for building completion are aggregates:

Index for building of carcass: (trade index 2-3)

Index for building completion: (trade index 4-6)

The work of glaziers is not included in the construction costs index as a trade index because prefabricated windows are often used in new construction work. Renovation of old buildings often includes work of glaziers and because of that a specific index is calculated for glaziers. This index is a weighted aggregate of index for labour costs and costs of materials.

A specific index for heavy concrete structures is calculated too. The actual building project selected did not use heavy concrete panels to the extent expected nowadays. This index is just an index of material costs and is based on a wide range of concrete panels.

2 Time

2.1 Reference Period

The construction cost index for residential buildings is calculated quarterly. The 1st of January, April, July and October. This means that data collected is the current prices and labour costs at the specific date. The reference periods are the 4th quarter by the 1st of January, the 1th quarter by the 1th of April, the 2th quarter by the 1th of August and the 3th quarter by the 1th of October.

2.2 Date of Publication

The construction cost index for residential buildings is published quarterly in the middle of February (4th quarter), May (1th quarter), August (2th quarter) and November (3th quarter).

2.3 Punctuality

The statistics are generally published as closely as possible to the scheduled publication date.

2.4 Frequency

Nyt fra Danmarks Statistik and *Statistiske Efterretninger*, are published every quarter.

3 Accuracy

3.1 Overall accuracy

There are no quantitative measures calculated for the reliability of the statistic.

3.2 Sources of inaccuracy

Data is collected from professional cost surveyors. The cost surveyors report material prices and the different trades price list of wages. This is the piece rate for specific parts of work. Statistics Denmark use two or more cost surveyors for each trades. The first reason for this is that the cost surveyors don't always get the same results and more than one surveyor makes it possible to adjust the discrepancies.

The second reason is that Statistics Denmark try to use surveyors from different parts of the country because of the fact that changes in prices is not the same all over the country.

The collected data are subject to different types of practical controls, by an investigation of the collected data. The collected data is compared with data from previous quarters. The cost surveyors are contacted if there are large differences and they are asked to explain the differences.

3.3 Measures on accuracy

Measures on accuracy are not available.

4 Comparability

4.1 Comparability over Time

There have been changes the following years:

The first construction cost index was published in 1920 and was an *index for smallholding* (indeks for husmandsbrug). The index had base year in 1914. The house was not described very well. Only that it contained 3 rooms, kitchen, laundry and stable. Because of that there were great inequalities in the data reported by the cost surveyors.

In 1926 a new collection of information about a specific type of house was started. By that means it was possible to follow the price development independent of any improvements of the furniture in the house. This index was revised in 1959 when it was decided to use a farmhouse and a farm building from a type book of the ministry of agriculture. 1959 was base year. Calculation of this index was finished in 1970.

In 1940 a new monthly index for a block of flats was published. This index should measure the development in the costs of residential construction. Base year for this index was 1939. This index was replaced in 1955 by a quarterly index. The weighting scheme of the quarterly index was established on an index house. This index house was a residential construction in 3 storeys with 6 staircases and 36 apartments. In this index 1955 was base year. It was still calculated in 1972 for the sake of long-term contracts even if new indices were published from 1969 and 1971. These two new indices were construction cost indices for one-family houses and a block of flats. As a new concept there were calculated indices for trades in the construction industry.

The present construction cost index replaced the two indices for one-family houses and a block of flats in 1989. 1987 is base year. The change from two to one index was made because there were no longer any significant difference between the method in construction and choice of materials.

Differences in classification: There was only published one total construction cost index until the publication of the two indices for one-family houses and a block of flats in 1969 and 1971. Here after there were calculated indices for the trades in the construction industry.

Differences in the concept of price: The monthly construction cost index published from 1939 to 1955 was calculated on the basis of information from the Wholesale price index about 20 of the most important construction materials. The labour costs were calculated on the basis of changes in the collective agreed wages in the construction industry. The index included in this way the direct expenses and excluded cost of engineers and architects. In 1955 the concept of price was changed. After this Statistics Denmark collected prices for 132 of the most important or most representative materials. The collected prices were net prices i.e. the invoice prices the master had to pay the supplier of materials excluding general discounts and any profits and including any given duty (i.e. including purchase tax (oms) per 1.8.1962 and VAT per 3.7.1967). The labour costs were calculated on the basis of the current price list in the province. The price list was based on collective agreements including social contributions among other things allowance for public holiday.

In the two indices published from 1969 to 1989 was a larger number of (repræsentantvarer) used than in the earlier indices. The material cost index was calculated on the basis of gross prices excluding VAT. The material costs excluded masters fee and other profits. The labour cost index was calculated on basis of price lists in the different construction trades. The material cost index in the present construction cost index from 1987 is calculated on basis of list prices and gathered information on producer prices deducted general discounts. The calculation of labour costs is made on basis of collective agreement wages including compulsory employers' contributions. The present index is comparable with the indices from 1968 and because of the parallel calculation of the indices in the period from 1987 to 1989 it is possible to regulate contracts back to 1968.

4.2 Comparability with other Statistics

There are no comparable statistics.

4.3 Coherence between provisional and final statistics

Only final statistics is calculated

5 Accessibility

5.1 Forms of dissemination

Nyt fra Danmarks Statistik, Byggeri og boligforhold (Statistiske Efterretninger), Konjunkturstatistik, Statistikservice.

Yearly publications: *Statistical Yearbook* and *Statistical ten-year review*.

Statbank Denmark (www.statistikbanken.dk): BYG4X og BYG5X.

5.2 Basic material: Storage and usability

Basis material is stored in a register. It is not possible to make any special calculation on basis of the basis material.

5.3 Documentation

A more detailed description is available in:

Bygge- og anlægsvirksomhed (Statistiske Efterretninger) 1989:14
Indeksregninger i Danmarks Statistik (1985)

5.4 Other Information

Is irrelevant to the statistics.