

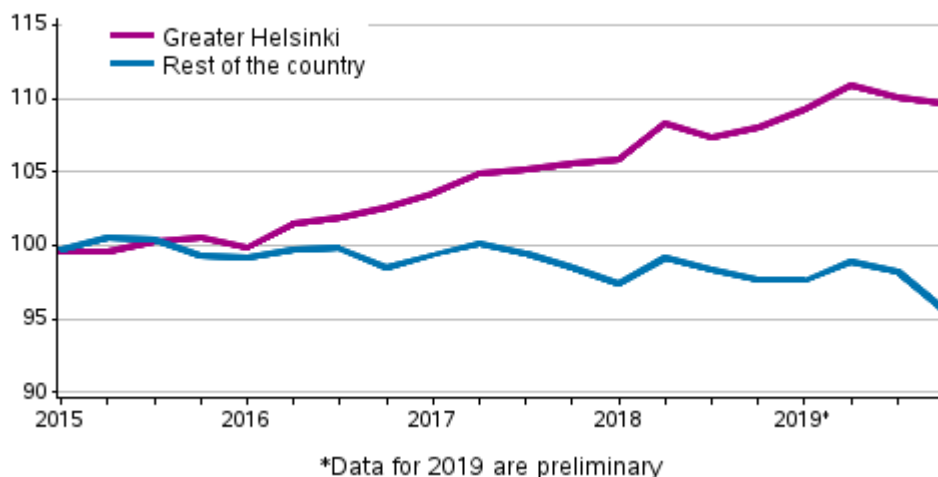
# Prices of dwellings in housing companies

2019, 4th quarter and February 2020

## Prices of old dwellings in housing companies rose in Greater Helsinki and decreased elsewhere in Finland in the latter part of 2019

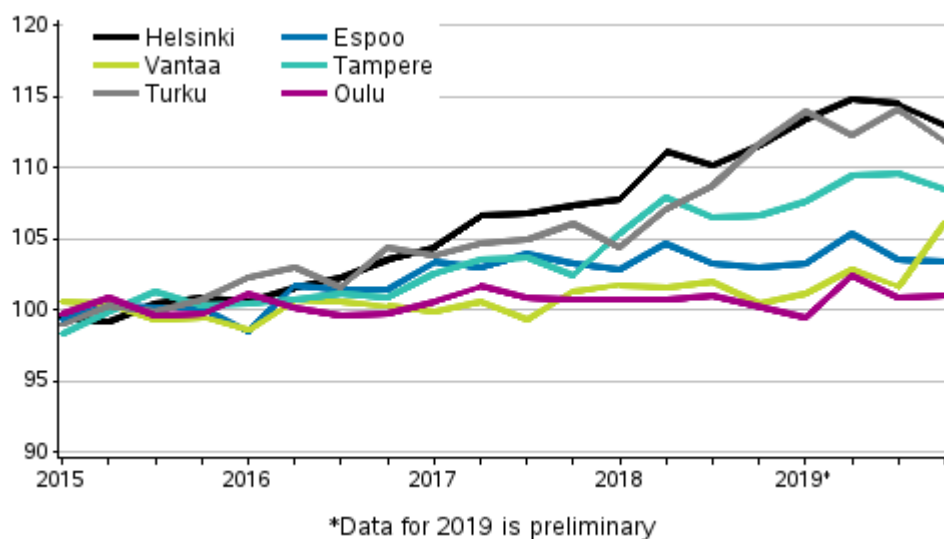
According to Statistics Finland's preliminary data, prices of old dwellings in housing companies rose by 1.6 per cent in Greater Helsinki compared to the corresponding period of the previous year in the last quarter of 2019. Prices decreased by some two per cent elsewhere in Finland. Compared to the third quarter, prices remained the same in Greater Helsinki and went down by 2.6 per cent in the rest of the country.

### Development of prices of old dwellings in housing companies by quarter, index 2015=100



Of large towns, the rise in prices in Helsinki, Tampere and Turku in early 2019 stalled in the latter part of the year. In the last quarter, prices in Helsinki and Tampere were on higher level compared to the corresponding period of the previous year. In Turku, the prices remained on the same level. Of large towns, prices rose clearly in Vantaa in late 2019.

### Development of prices of old dwellings in housing companies quarterly, index 2015=100



### Prices of old dwellings in housing companies rose most in Helsinki and Turku in the whole of 2019

According to preliminary data, prices of old dwellings in blocks of flats and terraced houses rose slightly in the whole of 2019. In Greater Helsinki, prices rose by two per cent and in the rest of the country they fell slightly.

Prices rose most during the whole year in Helsinki and Turku compared to 2018. Prices fell most in Riihimäki, South Savo and Central Ostrobothnia.

Compared to 2015, prices of old dwellings in housing companies have risen among large towns most in Helsinki, Turku and Tampere. The price development has been more moderate in Espoo, Vantaa and Oulu.

Prices of old dwellings in housing companies in different parts of the country have fallen in recent years, but account has to be taken of differences between areas and inside towns in price development and prices levels. For example, prices of old dwellings in housing companies in Jyväskylä have gone down by around three per cent from 2015. In the centre area of Jyväskylä prices have risen by around two per cent, while farther from the centre they have gone down by nearly 9 per cent. For example, differences in price development are large inside Helsinki.

Data on prices of dwellings in housing companies in different areas and by house type are available at [stat.fi/til/ashi/tau\\_en.html](http://stat.fi/til/ashi/tau_en.html).

## Prices of old dwellings in housing companies, whole year 2019, preliminary data <sup>1)</sup>

| Area  | Price, EUR/m <sup>2</sup> | Index 2015=100 | Yearly change, % |
|---|---------------------------|----------------|------------------|
| Whole country   | 2,091                     | 103.5          | 0.9              |
| Greater Helsinki                                      | 3,736                     | 110.0          | 2.4              |
| Rest of the country (whole country- Greater Helsinki) | 1,608                     | 97.6           | -0.6             |
| Helsinki  | 4,333                     | 113.9          | 3.4              |
| Espoo-Kauniainen                                      | 3,438                     | 103.9          | 0.4              |
| Vantaa  | 2,667                     | 103.0          | 1.5              |
| Satellite municipalities <sup>2)</sup>                | 2,093                     | 96.9           | -2.0             |
| Tampere   | 2,516                     | 108.8          | 2.0              |
| Turku   | 2,123                     | 113.1          | 4.7              |
| Lahti   | 1,684                     | 96.2           | 0.0              |
| Kuopio  | 1,780                     | 90.9           | -3.3             |
| Jyväskylä   | 1,809                     | 96.6           | -1.2             |
| Oulu  | 1,791                     | 101.0          | 0.3              |
| Pori  | 1,358                     | 96.2           | -0.5             |

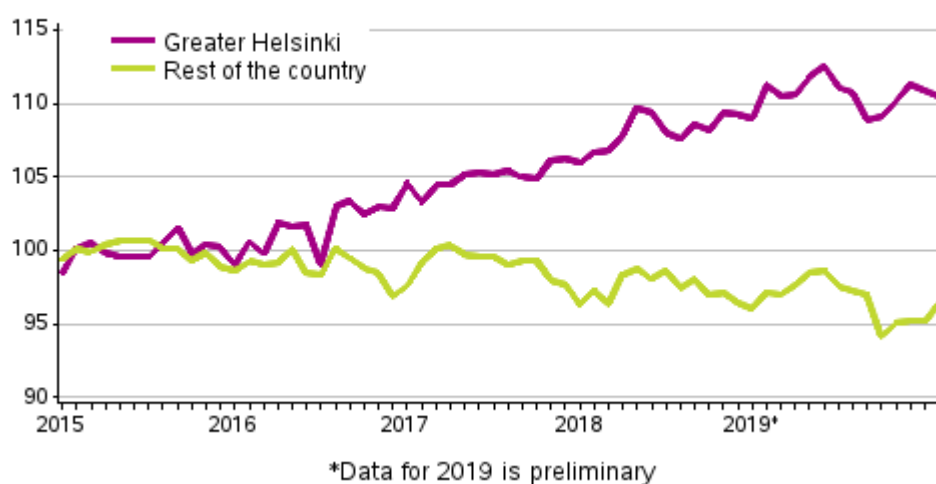
1) Preliminary data

2) Satellite municipalities = Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti

## Prices fell slightly in February 2020 elsewhere in Finland compared to the previous year

According to monthly level preliminary data, prices in early 2020 have fallen slightly with the corresponding period of the previous year in Greater Helsinki and elsewhere in Finland. Compared with January 2020, prices have remained almost on the same level in Greater Helsinki and they rose slightly elsewhere in Finland..

## Development of prices of old dwellings in housing companies by month, index 2015=100



The data used for these statistics will in future be the Tax Administration's dwelling data (data on ownership of dwellings in housing companies) and previously used asset transfer tax statements. Due to the change in the data, the revisions in these statistics are greater than usually.

Additionally, due to the change in the data, the numbers published in the statistics are not at the moment comparable with the data on numbers of earlier years (before 2019).

The preliminary data published now concerning last year include around 90 per cent of the final transactions of old dwellings in blocks of flats and terraced houses. Part of transactions made particularly in October are still missing. It is estimated that the latest monthly data for the early part of the year include 60-70 per cent of the final data. The data will be revised in the next release.

Instead of activeness of transactions, the numbers published in the statistics describe the reliability of the calculation of price data.

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# Appendix tables

**Appendix table 1. Prices per square metre of old dwellings in housing companies, February 2020<sup>1)</sup>**

| Area   | Price, EUR/m <sup>2</sup> | Index 2015=100 | Monthly change, % | Yearly change, % |
|--|---------------------------|----------------|-------------------|------------------|
| Whole country  | 2 292                     | 105,8          | 0,5               | -0,7             |
| Greater Helsinki                                       | 3 727                     | 110,5          | -0,4              | -0,7             |
| Rest of the country (whole country - Greater Helsinki) | 1 707                     | 96,4           | 1,3               | -0,8             |
| Satellite municipalities <sup>2)</sup>                 | 2 152                     | 96,2           | -2,6              | -2,5             |
| Helsinki   | 4 303                     | 114,0          | -0,7              | -1,1             |
| Espoo-Kauniainen                                       | 3 380                     | 105,5          | -1,0              | -1,0             |
| Vantaa   | 2 273                     | 103,7          | 2,7               | 1,9              |
| Tampere  | 2 530                     | 106,8          | 0,9               | 0,0              |
| Turku  | 2 294                     | 115,4          | 2,9               | 1,2              |
| Oulu   | 1 771                     | 105,2          | 1,7               | 6,6              |

1) Preliminary data

2) Satellite municipalities = Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti

**Appendix table 2. Unencumbered average prices per square metre of old blocks of flats, February 2020<sup>1)</sup>**

| Area   | Price, EUR/m <sup>2</sup> | Index 2015=100 | Monthly change, % | Yearly change, % |
|--|---------------------------|----------------|-------------------|------------------|
| Whole country  | 2,301                     | 106.4          | -0.3              | -0.7             |
| Greater Helsinki                                       | 3,998                     | 114.0          | -0.3              | -0.0             |
| Rest of the country (whole country - Greater Helsinki) | 1,689                     | 97.4           | -0.3              | -1.6             |
| Satellite municipalities <sup>2)</sup>                 | 1,963                     | 92.4           | -8.0              | -6.2             |
| Southern Finland                                       | 2,706                     | 110.0          | -0.4              | -0.6             |
| Western Finland  | 1,816                     | 97.8           | -3.5              | -4.8             |
| Eastern Finland  | 1,512                     | 87.8           | 7.1               | -1.7             |
| Northern Finland                                       | 1,661                     | 101.1          | 3.2               | 17.1             |
| Helsinki   | 4,660                     | 116.4          | 0.1               | -0.1             |
| Espoo-Kauniainen                                       | 3,293                     | 108.8          | -2.8              | -1.7             |
| Vantaa   | 2,552                     | 104.4          | 0.2               | 3.1              |
| Tampere  | 2 512                     | 108.8          | -1.4              | -2.5             |
| Turku  | 2,116                     | 112.5          | -0.2              | -1.1             |
| Oulu   | 1,980                     | 108.8          | 6.1               | 13.4             |

1) Preliminary data

2) Satellite municipalities = Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti

**Appendix table 3. Unencumbered average prices per square metre of old terraced houses, February 2020<sup>1)</sup>**

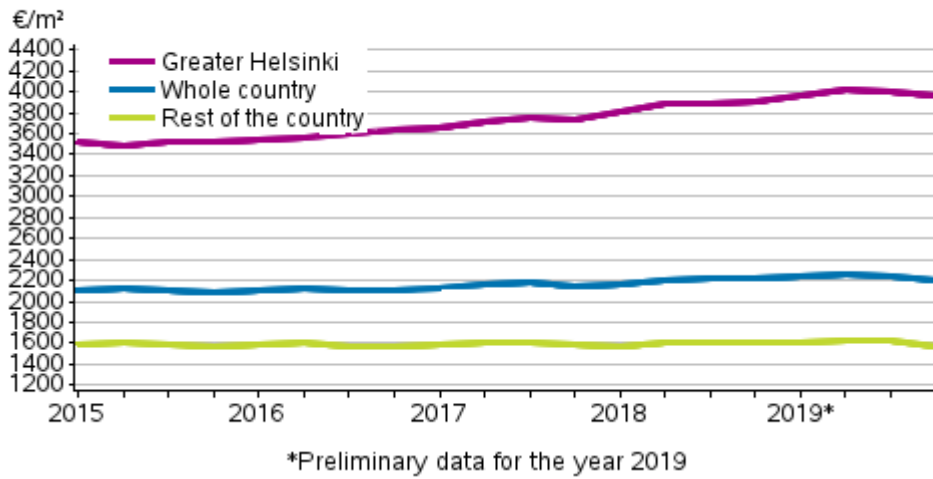
| Area   | Price, EUR/m <sup>2</sup> | Index 2015=100 | Monthly change, % | Yearly change, % |
|--|---------------------------|----------------|-------------------|------------------|
| Whole country  | 2,039                     | 98.4           | 1.6               | -0.8             |
| Greater Helsinki                                       | 3 316                     | 103.6          | -0.4              | -2.1             |
| Rest of the country (whole country - Greater Helsinki) | 1,726                     | 95.3           | 2.9               | 0.0              |
| Satellite municipalities <sup>2)</sup>                 | 2,286                     | 98.4           | 0.6               | -0.3             |
| Southern Finland                                       | 2,408                     | 101.6          | 0.5               | -1.2             |
| Western Finland  | 1,821                     | 94.9           | 3.2               | 2.4              |
| Eastern Finland  | 1,371                     | 79.4           | 6.8               | -7.6             |
| Northern Finland                                       | 1,558                     | 100.1          | 2.9               | 1.4              |
| Helsinki   | 3,346                     | 104.2          | -4.2              | -5.6             |
| Espoo-Kauniainen                                       | 3,442                     | 103.3          | 0.3               | -0.5             |
| Vantaa   | 3,045                     | 103.1          | 5.1               | 0.7              |
| Tampere  | 2,562                     | 103.1          | 5.6               | 4.8              |
| Turku  | 2,795                     | 121.8          | 10.0              | 6.4              |
| Oulu   | 1,605                     | 101.9          | -2.4              | 0.5              |

1) Preliminary data

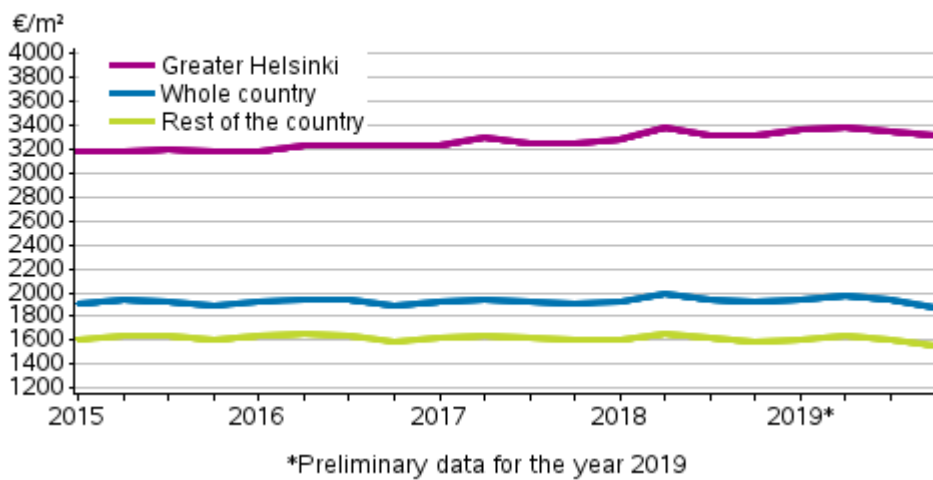
2) Satellite municipalities = Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti

# Appendix Figures

**Appendix figure 1. Average prices per square meter of dwellings in old blocks of flats**

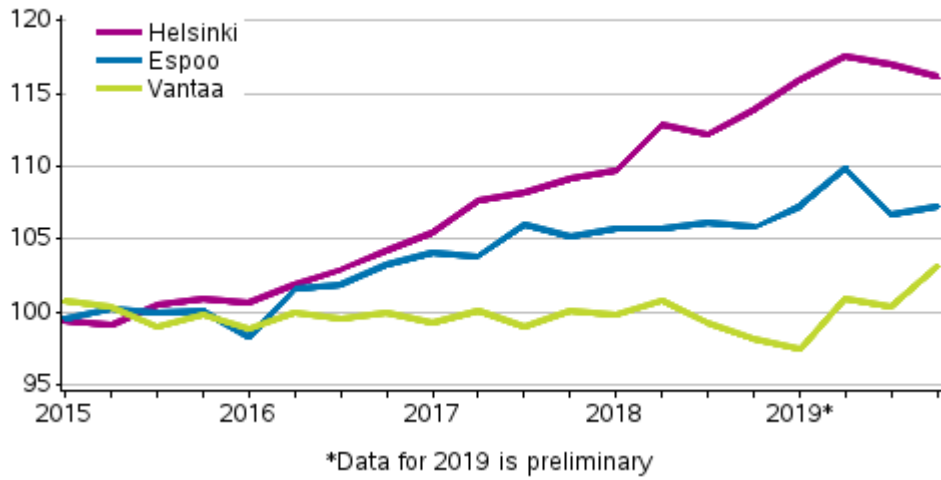


**Appendix figure 2. Average prices per square meter of dwellings in old terraced houses**

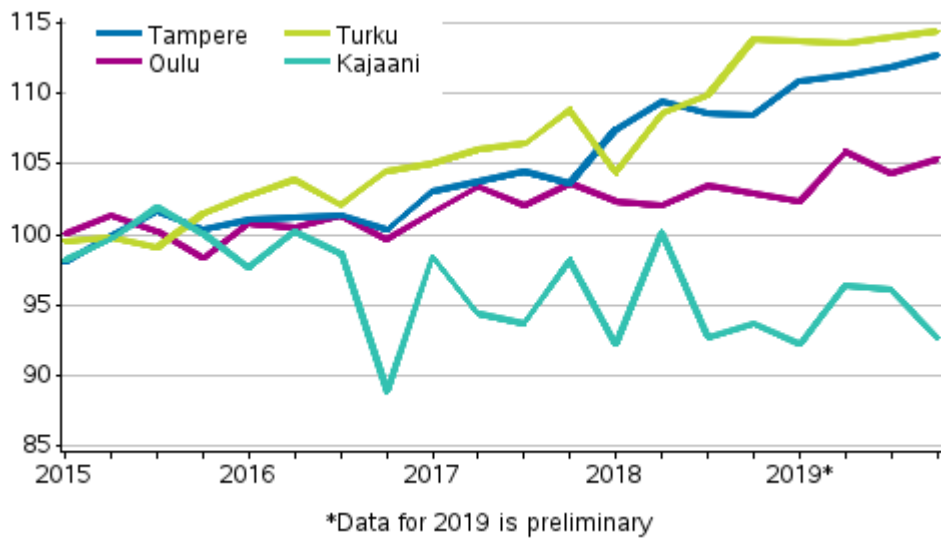




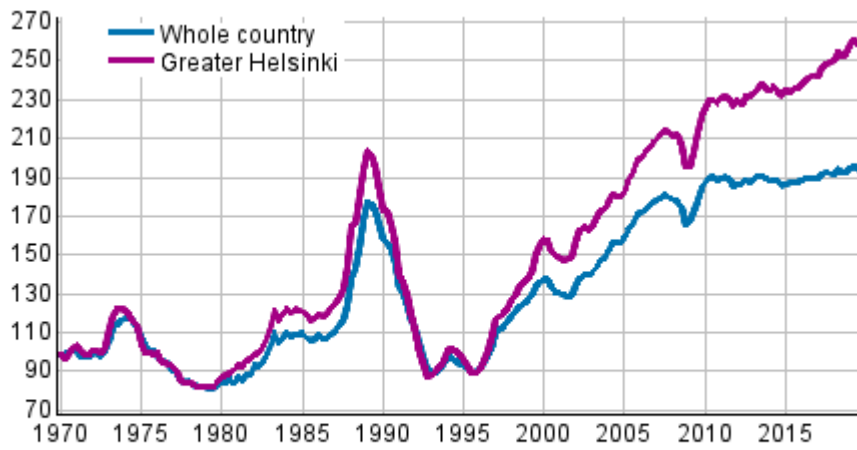
**Appendix figure 3. Price development of old dwellings in blocks of flats in Helsinki Metropolitan Area, index 2015=100**



**Appendix figure 4. Price development of old dwellings in blocks of flats in Tampere, Turku, Oulu and Kajaani, index 2015=100**



**Appendix figure 5. Real Price Index of old dwellings in blocks of flats, index 1970=100**



\*Data for 2019 is preliminary

## Revisions in these statistics

The data of the statistics have become revised according to the table below. For more information about data revisions, see Section 3 of the quality description.

### Revisions to data on monthly changes in prices of dwellings in housing companies, monthly statistics<sup>1)</sup>

| Area and reference time |         | Monthly change, %        |             | Revision, percentage point |
|-------------------------|---------|--------------------------|-------------|----------------------------|
|                         |         | Latest release 31.3.2020 | 1st release |                            |
| Whole country           | 06/2019 | 0.4                      | 0.1         | .0.3                       |
|                         | 07/2019 | -1.2                     | -1.6        | 0.4                        |
|                         | 08/2019 | -0.3                     | -0.3        | 0.0                        |
|                         | 09/2019 | -1.0                     | -0.4        | -0.6                       |
| Greater Helsinki        | 06/2019 | 0.7                      | 1.0         | -0.3                       |
|                         | 07/2019 | -1.3                     | -1.7        | 0.4                        |
|                         | 08/2019 | -0.3                     | 0.5         | -0.8                       |
|                         | 09/2019 | -1.6                     | -1.5        | -0.1                       |
| Rest of the country     | 06/2019 | 0.2                      | -0.8        | 1.0                        |
|                         | 07/2019 | -1.1                     | -1.5        | 0.4                        |
|                         | 08/2019 | -0.3                     | -1.1        | 0.8                        |
|                         | 09/2019 | -0.3                     | 0.7         | -1.0                       |

1) The 1st release refers to the time when data for the reference period were released for the first time. The revision describes the difference of monthly change percentages between the latest and first release.

### Revisions to data on annual changes in prices of dwellings in housing companies, monthly statistics<sup>1)</sup>

| Area and reference time |         | Annual changes, %        |             | Revision, percentage point |
|-------------------------|---------|--------------------------|-------------|----------------------------|
|                         |         | Latest release 31.3.2020 | 1st release |                            |
| Whole country           | 06/2019 | 1.8                      | 0.6         | 1.2                        |
|                         | 07/2019 | 0.9                      | -0.4        | 1.3                        |
|                         | 08/2019 | 1.3                      | 0.3         | 1.0                        |
|                         | 09/2019 | -0.4                     | -0.7        | 0.3                        |
| Greater Helsinki        | 06/2019 | 2.9                      | 2.2         | 0.7                        |
|                         | 07/2019 | 2.9                      | 2.1         | 0.8                        |
|                         | 08/2019 | 2.9                      | 2.2         | 0.7                        |
|                         | 09/2019 | 0.3                      | -0.3        | 0.6                        |
| Rest of the country     | 06/2019 | 0.7                      | -1.1        | 1.8                        |
|                         | 07/2019 | -1.1                     | -2.8        | 1.7                        |
|                         | 08/2019 | -0.2                     | -1.7        | 1.5                        |
|                         | 09/2019 | -1.1                     | -1.1        | 0.0                        |

1) The 1st release refers to the time when data for the reference period were released for the first time. The revision describes the difference of annual change percentages between the latest and first release.

### Revisions to data on quarterly changes in prices of dwellings in housing companies, quarterly statistics<sup>1)</sup>

| Area and reference time |        | Quarterly change, %      |             | Revision, percentage point |
|-------------------------|--------|--------------------------|-------------|----------------------------|
|                         |        | Latest release 31.3.2020 | 1st release |                            |
| Whole country           | 1/2019 | 0.5                      | -0.6        | 1.1                        |
|                         | 2/2019 | 1.4                      | 1.4         | 0.0                        |
|                         | 3/2019 | -0.8                     | -0.6        | -0.2                       |
| Greater Helsinki        | 1/2019 | 1.2                      | -0.6        | 1.8                        |
|                         | 2/2019 | 1.5                      | 2.0         | -0.5                       |
|                         | 3/2019 | -0.8                     | -1.0        | 0.2                        |
| Rest of the country     | 1/2019 | -0.1                     | -0.6        | 0.5                        |
|                         | 2/2019 | 1.3                      | 0.8         | 0.5                        |
|                         | 3/2019 | -0.7                     | -0.3        | -0.4                       |

1) The 1st release refers to the time when data for the reference period were released for the first time. The revision describes the difference of quarterly change percentages between the latest and first release.

### Revisions to data on yearly changes in prices of dwellings in housing companies, quarterly statistics<sup>1)</sup>

| Area and reference time |        | Annual change, %         |             | Revision, percentage point |
|-------------------------|--------|--------------------------|-------------|----------------------------|
|                         |        | Latest release 31.3.2020 | 1st release |                            |
| Whole country           | 1/2019 | 1.7                      | 0.6         | 1.1                        |
|                         | 2/2019 | 1.1                      | 0.1         | 1.0                        |
|                         | 3/2019 | 1.1                      | 0.4         | 0.7                        |
| Greater Helsinki        | 1/2019 | 3.2                      | 1.5         | 1.7                        |
|                         | 2/2019 | 2.4                      | 1.6         | 0.8                        |
|                         | 3/2019 | 2.5                      | 1.5         | 1.0                        |
| Rest of the country     | 1/2019 | 0.2                      | -0.2        | 0.4                        |
|                         | 2/2019 | -0.2                     | -1.3        | 1.1                        |
|                         | 3/2019 | -0.2                     | -0.8        | 0.6                        |

1) The 1st release refers to the time when data for the reference period were released for the first time. The revision describes the difference of annual change percentages between the latest and first release.

# Quality Description: Prices of dwellings in housing companies

## 1. Relevance

### 1.1 Information content and purpose of use

The statistics on prices of dwellings in housing companies describe the unencumbered prices per square metre of old dwellings in housing companies, and monthly, quarterly and annual changes in them. Data concerning new dwellings are published quarterly and annually. The statistics contain data classified by area and type of building for the examined period and for a longer time period. The purpose of the statistics is to provide information about price development on the housing market.

### 1.2. Concepts, classifications and data

#### **The data and the data suppliers:**

*Old dwellings:* The data of the statistics on dwelling prices are based on the price information gathered by the Finnish Tax Administration for asset transfer tax calculation purposes. Additionally, the Tax Administration's Register of Real Estate Property and Statistics Finland's data on the dwelling stock that are based on the Population Register Centre's Register of Buildings and Dwellings are also used for the statistics.

*New dwellings:* The data of the statistics on dwelling prices are based on the information Statistics Finland receives via a private price monitoring service about transactions in new dwellings made by the largest real estate agents and building contractors. The monthly statistics do not contain information on new dwellings due to the scarcity of statistical data.

#### **Used concepts:**

*Dwelling:* A dwelling refers to a room or suite of rooms that is equipped with a kitchen, kitchenette or cooking area and is intended for year-round habitation.

*Price per square metre of dwelling:* The statistics are compiled from data on unencumbered prices, in other words, prices inclusive of the debt portion. The published price concept is price per square metre (EUR/m<sup>2</sup>). The published prices per square metre of old dwellings in housing companies are weighted geometric means of prices of square metre (EUR/m<sup>2</sup>).

*Floor area of dwelling:* The area of a dwelling, i.e. a residential dwelling is the floor area that is limited, on the one hand, by walls surrounding the dwelling, on the other hand, by the main walls and the surfaces of building parts in the inside of the dwelling necessary for the whole building. The floor areas of auxiliary spaces (utility space, walk-in wardrobe, etc.), bathroom, hobby room, fireplace room, sauna in a dwelling, washroom and changing room, and rooms used as working space if no hired employees work in them are also included in the floor area of a residential dwelling. Garage, cellar, sauna space in unfurnished basement, unheated storage space, balcony, porch, veranda, vestibule and unoccupied attic spaces are not included in the floor area of a residential dwelling.

*First home:* First-time dwelling transactions include those that are entitled to the exemption from the asset transfer tax for first-time homebuyers ([www.vero.fi](http://www.vero.fi)).

*Old/new dwelling:* An old dwelling refers to a dwelling that has not been completed in the examined year or the year before it. Respectively, a new dwelling refers to a dwelling completed in the statistical reference year or the year before it that is sold for the first time.

*Type of building:* The dwellings in the statistics are classified into blocks of flats and terraced houses according to type of building. The data on terraced houses also include detached houses whose tenure is based on ownership of housing company shares.

*Type of financing:* Dwellings financed with ARA subsidised housing loans and price controlled HITAS dwellings are not included in the non-subsidised dwelling category used in the statistics.

*Number of rooms:* A room is defined as a space with one or more windows that has a floor area of at least seven square metres and mean height of at least two metres. A hall, porch, bed recess or other similar space is not regarded as a room. Kitchen is not included in the number of rooms. Dwellings with at least three rooms are classified into room number category 3h+. In the monthly statistics data are not published by number of rooms due to the scarcity of statistical data.

*(Nominal) price index:* Describes the change in prices compared to the base period of the index concerned. On the basis of the price index, it is possible to follow the change in dwelling prices compared to different periods, that is, how much more or less a typical dwelling costs now than earlier. Because the composition of dwellings sold at different times is not the same, the calculation of the index aims to separate genuine price development from price changes caused by the characteristics of the dwellings sold.

*Real price index:* Describes the change in real prices compared to the index base period. The real price index is derived by dividing the point figure of the nominal price index for the area with the point figure of the Consumer Price Index for the whole country in the corresponding time period and base year.

*Point figure:* Point figure is a change quantity used in price indices, which expresses the price, average price or index of the comparison period relative to the price, average price or index of the base period. The point figure of the base period is usually denoted by the number hundred. For example, if the point figure of a commodity at a certain point in time is 105.3, the price of the commodity has risen by 5.3 per cent compared to the base time period.

*Distribution parameters:*

Q1 (lower quartile) = 25% of the observations remain below.

Med (median) = Middle observation when the observations are arranged in size order.

Q3 (upper quartile) = 75% of the observations remain below.

*Number of transactions:* Describes the recorded number of transactions made on dwellings in housing companies in the area. The data on numbers will become revised in the following releases so that the final data for the year are published in the release concerning the first quarter of the following year. The number of transactions also include transactions of price controlled HITAS dwellings and Housing Finance and Development Centre ARA dwellings in the area not included in the price indices and prices per square metre.

### **Classifications:**

*Old dwellings in housing companies::*

In the monthly statistics the area categories are: whole country, Greater Helsinki, rest of Finland (whole country exclusive of Greater Helsinki), satellite municipalities (Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula, Vihti), Helsinki, Espoo-Kauniainen, Vantaa, Tampere, Turku, Oulu and major regions Southern Finland, Western Finland, Eastern Finland and Northern Finland. The Greater Helsinki area comprises Helsinki, Espoo, Vantaa and Kauniainen, which in the statistics is included in Espoo.

The annual and quarterly statistics use different area combinations, such as Greater Helsinki, satellite municipalities around Greater Helsinki, regions and urban sub-areas. The urban sub-areas are formed of postal code areas using price level and location as the criteria. Detailed regional division available [at link](#).

*New dwellings in housing companies:*

The regional division used in the statistics on new dwellings is less detailed than that used for the statistics on old dwellings. The classification used in the statistics on the prices of new dwellings also takes into consideration the needs of the Consumer Price Index, hence the regional classification complies with the division into major regions used in the Consumer Price Index. The area categories of the index published are the whole country, Greater Helsinki, rest of Finland, and major regions Southern Finland, Western Finland, Eastern Finland and Northern Finland. In addition to these, indices are published for the biggest towns (Helsinki, Espoo, Vantaa, Tampere, Turku, Oulu, Jyväskylä).

Prices per square metre for new dwellings are published on the annual level according to urban sub-areas as well. Urban sub-areas are formed for new dwellings by combining the sub-areas used in the regional classification of old dwellings. The area categories were formed anew in Helsinki, Espoo, Vantaa and Jyväskylä based on the prices per square metre for new dwellings because the classification of old dwellings is not as such suitable for new dwellings. Classification used: [at link](#)

Prices per square metre are also published in new dwellings for major regions without the biggest towns. On the annual level, prices per square metre are published by major region according to the urban-rural classification of the Finnish Environment Institute for inner urban areas and for other areas. For example, prices per square metre in the area of Eastern Finland are published separately for the sub-areas of Jyväskylä, and for the rest of Eastern Finland area divided into inner urban areas and other areas. For example, the central areas of Jyväskylä and Kuopio belong to the inner urban areas of Eastern Finland. The urban-rural classification will be updated in 2020 and the data will be revised after that according to the new classification

## 2. Methodological description

The statistics on the prices of dwellings in housing companies describe the unencumbered prices per square metre of dwellings in housing companies and changes in them. The statistics include both unencumbered prices per square metre calculated as averages directly from the data and the price index for dwellings in housing companies that describes the change in prices.

The price index aims at answering the question how much more or less a typical dwelling in a housing company now costs compared with before on the basis of the total number of actual transaction prices. Because the composition of dwellings sold at different times is not the same, monitoring average price changes is not sufficient. For example, the relative shares of different types of dwellings among sold dwellings may vary from quarter to quarter. When calculating the index, the so-called hedonic method is used, where the aim is to separate the genuine price development from price changes caused by dwelling characteristics at different points in time with the help of data classification and regression analysis.

**Classification:** Because the location, type of building and number of rooms are the most important price determinants, the composition of sold dwellings is first standardised by classifying these variables. The regional classification has been constructed so as to be geographically meaningful and as homogeneous as possible in respect of price levels of dwellings. In the regional classification, larger cities have been divided into several sub-areas and smaller municipalities, where only few transactions take place, have been combined. Within areas, dwellings in a housing company are divided by type of building into two categories: blocks of flats and terraced and detached houses. Dwellings in blocks of flats have been classified further by the number of rooms into one-room dwellings, two-room dwellings and dwellings with three or more rooms. Terraced houses have been divided by the number of rooms into two categories: dwellings with fewer than three rooms and dwellings with at least three rooms.

**Regression model and quality adjustment:** The used classification does not, however, homogenise the data sufficiently, because inside a class, dwellings differ from another in terms of micro-location, floor area, year of completion, and so on. The price data on old dwellings contain data on the year of completion, floor area, and location of the dwelling on the postal code level. The price data on new dwellings include data on the floor area and location of the dwelling on the postal code level. With the help of the regression model, these data are used to quality adjust for changes in the composition of the data between the base and reference periods.

An example of a quality adjustment: during the statistical quarter the dwellings in a certain area have, on average, a larger floor area than the dwellings in the base period. In the quality adjustment, the index is revised upwards as otherwise the lower price per square metre caused by the larger floor area would erroneously be interpreted as a drop in prices. If there is no difference in the floor areas of the dwellings sold during the statistical quarter compared to the base period, no quality adjustment is needed.

The index point figure for the whole country is derived by aggregating the index class-specific price changes and the quality adjustments with the so-called log-Laspeyres index formula. The weights for old dwellings are derived as value-shares of the stock of dwellings in housing companies in 2015.

A more detailed methodological description of old dwellings in housing companies has been published in Statistics Finland's Studies series (Koev, Eugen: Combining classification and quality adjustment in constructing a House Price Index. Helsinki, Statistics Finland, Studies series (2013)).

The price index of new dwellings in housing companies differs somewhat from the calculation of the price index of old dwellings in housing companies. The quality standardising method is similar, but the index is calculated using the Törnqvist index formula. In new dwellings in housing companies, quality standardised price changes are weighted together with the value shares of new dwellings sold in the basic and comparison periods. In quality standardisation, use is made of the dwelling's floor area, the location of the dwelling and whether the dwelling is located on rented or own plot.

The base period is the previous year and the actual index series is calculated by chaining the index into a time series whose base year is 2015=100.

### 3. Correctness and accuracy of the data

#### 3.1. Reliability of the statistics

The statistics on the prices of old dwellings are based on the Tax Administration's asset transfer tax data, which cover the transactions of all dwellings whose tenure is based on ownership of housing company shares. All transactions of old housing company dwellings are not included immediately in the statistics, because the purchaser is allowed two months to pay the asset transfer tax. Supplementing of the data is also affected by whether the data have been reported on time and whether the electronic questionnaire has been used in reporting.

The statistics on the prices of new dwellings are based on data obtained from the largest real estate agents and building contractors and the data are final when first published. The number of transactions describes the number of transactions in the statistics, not the total number of transactions of new dwellings.

The price indices of old and new units in housing companies and the published prices per square metre include dwellings on both own and rented plots. The price indices and prices per square metre of old units in housing companies do not include price controlled HITAS dwellings.

The results of the statistics describe the housing company share market relatively reliably. However, the number of included transactions should be taken into consideration. If few transactions have been made, a couple of deviating cases may affect the average price for an area significantly. Therefore, the development of prices should always be examined in the longer term and not only for a certain time period.

#### 3.2. Accuracy of the statistics

Cases with missing information about transaction prices or floor area, or with exceptionally high or low price due to contract within family or error in data entry are not accepted into the statistics. The acceptable ranges of prices per square metre by area are defined yearly for old and new dwellings.

#### [The price data of old dwellings in housing companies become revised](http://tilastokeskus.fi/til/ashi/rev_en.html)

([http://tilastokeskus.fi/til/ashi/rev\\_en.html](http://tilastokeskus.fi/til/ashi/rev_en.html)) over the year so that the final data for the year are published in the release concerning the first quarter of the following year. On the average, the revision in monthly statistics on prices of dwellings amounts to 0.3 per cent either way for the whole country. The revision is larger for smaller geographical areas. The average revision in quarterly statistics amounts to 0.2 per cent either way for the whole country.

It is not recommended to use the latest month's number of transactions when describing the activeness of trading; it rather describes the reliability of the price index and price per square metre in the latest time period. If only a few transactions are known, a couple of deviating cases may affect significantly the average price for an area.

The numbers of transactions in the latest months should be examined over a longer period than one month. Particularly in summer months, the number of transactions in the latest release of the monthly statistics may remain lower than usual and become revised in the coming months.



### 3.3. Use of the parameters of the statistics

Because the price index takes into account changes in the distribution of year of completion, floor area and location of dwellings sold at different points in time, and their effects on prices, the average prices of the statistics vary differently from the price index. The price index and the average price are each useful measures for different situations.

The *price index* endeavours to measure as accurately as possible how much more/less an average dwelling in a housing company costs now than it did before. The *average price*, in turn, describes the prevailing price level for sold dwellings without considering whether they are older, newer, larger or smaller than dwellings sold before. More information about the key figures of the statistics are given in the Tieto&trendit blog (in Finnish).

## 4. Timeliness and promptness of published data

### 4.1. Publication frequency and measurement period of the statistics

The statistics on prices of dwellings in housing companies are published monthly, quarterly and annually. Monthly data are released one month from the end of the statistical reference month and quarterly data are released simultaneously with the data for the last month of each quarter. Quarterly data are statistically more reliable than monthly data and contain more detailed information by area. The annual statistics are published in connection with the statistical release for the first quarter of the year following it. The annual statistics are published in connection with the statistical release for the first quarter of the year following it.

### 4.2. Preliminariness of the statistics

When the statistics are published they cover approximately two-thirds of all transactions made in the latest quarter. The latest monthly statistics contain around 50 per cent of all transactions. Statistics Finland receives the data on the remainder as they arrive at the Tax Administration.

Monthly and quarterly data are updated retrospectively in connection with each release so that the final data for the statistical year are published with the data for the first quarter of the year following it.

## 5. Accessibility and transparency of the data

A latest statistical release will be published from the statistics on Statistics Finland's web pages on the publication date of the statistics on prices of dwellings. Data concerning dwelling prices can also be found on Statistics Finland's web pages and database service. The essential metadata have been described in this document, which is incorporated into the publication of statistics on dwelling prices in housing companies. This document is also available on Statistics Finland's web pages.

These statistics cover only dwelling transactions in housing company shares. Especially out of the Greater Helsinki area, there are numerous real estate transactions that are not included in these statistics. Statistics Finland publishes a separate price index on real estate prices. Data on real estate transaction prices by municipality are available from the National Board of Survey.

## 6. Comparability of the statistics

### 6.1. Comparability with other data

When these statistics are compared with data from other producers, the source of the basic data should be considered. The data on old dwellings published by Statistics Finland's are based on the Tax Administration's asset transfer tax statements. The monthly data become revised during the following months so that the final data for the year are published in the release concerning the first quarter of the following year. The data for the annual statistics cover nearly all private transactions and the transactions carried out through real estate agents. .

For example, the data published by the Union of Real Estate Agencies in Finland (KVKL) are based on the dwelling transaction data reported by the largest real estate agents and building contractors. The data covers 70 to 80 per cent of transactions in old dwellings, in addition to which the material contains data on real estate transactions and transactions in new dwellings. The price index of dwellings in old blocks of flats published by KVKL differs from that published by Statistics Finland, for example, in terms of quality standardisation and the calculation method of the index. The aim of the price index published by Statistics Finland is to describe the price development of the entire dwelling stock, while the aim of KVKL's index is to describe the price changes in completed transactions.

## 6.2. Comparability over time

Data compiled from the Tax Administration's asset transfer tax data are available on prices of old dwellings in housing companies quarterly starting from the year 1987. Older data are available going back to 1970. Data provided by real estate agents are available for the period 1970 to 1986 and the used classification is much less detailed. As regards new dwellings, the time series based on data provided by real estate agents have been calculated quarterly from 2005 onwards.

In January 2013, combinations of register data were updated. This increases the number of transactions by around three to five per cent on the annual level compared with earlier years.

From the beginning of 2015, the quality adjustment models and the weights used in the index calculation of both old and new dwellings in housing companies were updated. In terms of the calculation of old dwellings in housing companies, the procedure for checking prices was also updated. The monthly indices of old dwellings in housing companies, as well as the quarterly and annual indices of old and new dwellings in housing companies, have been backcasted from the year 2010 taking these changes into account. Due to the changes, the backcasted indices can to some extent differ from previously published indices. Most differences are generated in regions where the number of observations is low. For the whole country, the differences are small.

The calculation of the numbers of transactions of old dwellings in housing companies was renewed in the beginning of 2016. In the renewal, the joint use of transaction data and various register data was improved, as a result of which transactions of old dwellings in housing companies can be differentiated in future better than before from the transactions of new dwellings. The methodological renewal also has an impact on the yearly published transaction sum data of old dwellings in housing companies, and on the quarterly published prices per square metre by post code. In future, data according to the new method are used for these. Comparable time series have been produced with the renewed method on all the data to be published.

From the beginning of 2018, the quality adjustment models and the weights used in the index calculation of old dwellings in housing companies were updated. In this connection, the checking methods for prices and surface areas were updated. The review procedure of observations included in index calculation was harmonised with the calculation of the numbers of transactions that was renewed in 2016. In addition, the new base year 2015=100 was taken into use. The calculation method for prices per square metre was changed in aggregation from the arithmetic mean to the geometric mean, which caused differences compared with previously published data, especially at aggregate level.

## 7. Coherence and consistency

In addition to the statistics on prices of dwellings in housing companies, Statistics Finland releases data on the price development of single-family houses and single-family house plots in the quarterly statistics on real estate prices. The prices of dwellings in housing companies and single-family houses are included in the indices of owner-occupied housing prices delivered to Eurostat (Council Regulation (EC) No. 93/2013). The indices of owner-occupied housing prices are published on Eurostat's website.

In addition to the statistics on prices of dwellings in housing companies, Statistics Finland releases quarterly statistics on real estate prices. Besides the data published by Statistics Finland, real estate agents, credit institutions and banks also publish information concerning dwelling prices and their development.

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