

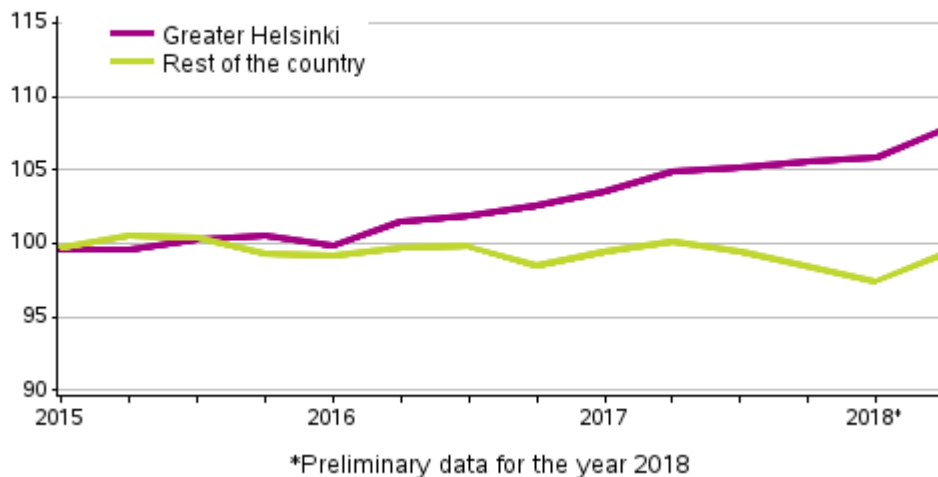
Prices of dwellings in housing companies

2018, June and 2nd quarter

Prices of old dwellings in housing companies rose in the second quarter

According to Statistics Finland's preliminary data, prices of old dwellings in housing companies rose in the whole country by 1.8 per cent in the second quarter of 2018 from the previous quarter. In Greater Helsinki, as well as in the rest of Finland, prices rose by 1.8 per cent. Compared with the corresponding period of 2017, prices rose by 0.8 per cent in the whole country. In Greater Helsinki, prices went up by 2.7 per cent, while in the rest of Finland they went down by 0.9 per cent.

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



In April to June, the average price per square metre of an old dwelling in a housing company was EUR 2,098 in the whole country, EUR 3,673 in Greater Helsinki and EUR 1,629 elsewhere in the country.

Prices of new dwellings in blocks of flats and terraced houses grew by 3.1 per cent in the whole country compared with the previous quarter. In Greater Helsinki, prices went up by 2.2 per cent and in the rest of the country by 3.6 per cent.

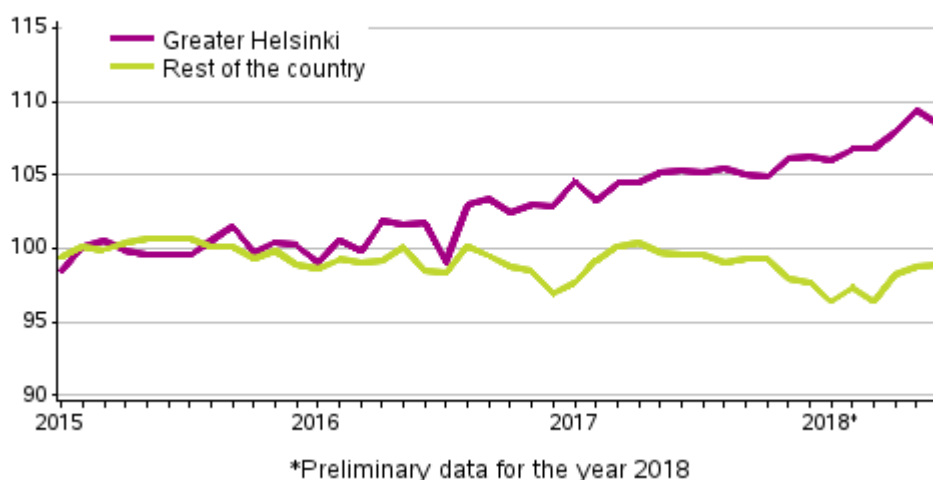
Compared with the same period in 2017, prices of new units in housing companies fell by 0.4 per cent in the whole country. Prices went down by 3.7 per cent in Greater Helsinki, while in the rest of Finland they went up by 1.5 per cent. The average price per square metre of new units in housing companies was EUR 3,722 in the whole country, EUR 4,920 in Greater Helsinki and EUR 3,300 in the rest of the country.

The information on old dwellings derive from the statistics on the prices of dwellings in housing companies compiled by Statistics Finland from the Tax Administration’s data. The preliminary data cover roughly two-thirds of completed transactions in old dwellings in blocks of flats and terraced houses. The data on new dwellings in blocks of flats are based on information on the transaction prices of the largest building contractors and estate agents. More detailed price data on dwellings in housing companies are available at http://tilastokeskus.fi/til/ashi/tau_en.html.

Prices of units in housing companies declined in June

According to Statistics Finland’s preliminary data, prices of dwellings in old blocks of flats and terraced houses went down by 0.4 per cent in the whole country from May to June. In Greater Helsinki, prices fell by 0.9 per cent while in the rest of Finland they remained nearly unchanged. Compared with June 2017, prices grew by 1.1 per cent in the whole country. In Greater Helsinki, prices went up by 2.9 per cent, while in the rest of Finland they went down by 0.7 per cent.

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



In June 2018, the average price per square metre of an old dwelling in a housing company was EUR 2,122 in the whole country, EUR 3,767 in Greater Helsinki and EUR 1,638 elsewhere in the country.

When the monthly statistics on prices of dwellings in housing companies are published they cover approximately 50 per cent of all transactions made in the latest statistical month. 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. For further information about data revisions, see separate tables.

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1. Prices of dwellings in blocks of flats rose in the April to June period

According to preliminary data, prices of old dwellings in blocks of flats rose by 1.8 per cent in the whole country compared to the previous quarter. In Greater Helsinki, as well as in the rest of Finland, prices rose by 1.8 per cent. Compared to the corresponding quarter of 2017, prices rose by 1.8 per cent in the whole country. In Greater Helsinki, prices went up by 3.6 per cent, while in the rest of Finland they went down by 0.4 per cent.

The prices of dwellings in old blocks of flats rose by 13.0 per cent in Kouvola, 8.7 per cent in Rovaniemi and 8.5 per cent in Pori. Prices fell by 3.3 per cent in Järvenpää and Porvoo compared with the previous quarter. Compared to the corresponding quarter of 2017, the prices rose by 7.2 per cent in Rauma, by 5.3 per cent in Tampere and by 4.1 per cent in Helsinki and Kajaani. Prices fell by 12.0 per cent in Järvenpää, by 6.1 per cent in Lappeenranta and by 5.8 per cent in Hyvinkää.

Viewed by type of apartment, prices of one-room flats went up by 1.2 per cent in Greater Helsinki and by 0.2 per cent in the rest of Finland from the previous quarter. Over the same period, prices of two-room flats rose by 1.1 per cent in Greater Helsinki and by 0.7 per cent in the rest of the country. Prices of three-room and larger flats went up by 2.2 per cent in Greater Helsinki and by 2.8 per cent in the rest of the country.

In the second quarter of 2018, the average price per square metre of an old dwelling in a block of flats was EUR 2,204 in the whole country, EUR 3,873 in Greater Helsinki and EUR 1,605 elsewhere in Finland.

Prices of new dwellings in blocks of flats went up by 3.1 per cent in the whole country from the previous quarter. Prices went up by 2.6 per cent in Greater Helsinki and by 3.5 per cent in the rest of Finland. Compared with the corresponding period of 2017, prices of new dwellings in blocks of flats went down by 0.7 per cent in the whole country. In Greater Helsinki, prices went down by 5.5 per cent, whereas in the rest of Finland they rose by 2.6 per cent.

In the second quarter of 2018, the average price per square metre of a new dwelling in a block of flats was EUR 4,094 in the whole country, EUR 5,201 in Greater Helsinki and EUR 3,611 elsewhere in Finland.

2. Prices of dwellings in terraced houses rose in the April to June period

According to preliminary data, prices of old dwellings in terraced houses rose by an average of 1.8 per cent from the previous quarter in the whole country. In Greater Helsinki, prices went up by 1.8 per cent and in the rest of the country by 1.9 per cent. Compared to the same period in 2017, prices of dwellings in terraced houses fell by 0.5 per cent in the whole country. In Greater Helsinki, prices went up by 0.9 per cent, while in the rest of the country they went down by 1.5 per cent.

The prices of dwellings in old terraced houses rose by 16.6 per cent in Kajaani, 10.9 per cent in Porvoo and 9.4 per cent in Rauma. Prices fell by 7.3 per cent in Seinäjoki, by 7.1 per cent in Hämeenlinna and by 3.6 per cent in Pori compared with the previous quarter. Compared to the corresponding quarter of 2017, the prices rose by 9.2 per cent in Rauma, by 5.6 per cent in Porvoo and by 3.0 per cent in Tampere. Prices fell by 12.6 per cent in Hämeenlinna, by 11.7 per cent in Mikkeli and by 8.5 per cent in of Seinäjoki.

In the second quarter of 2018, the average price per square metre of an old dwelling in a terraced house was EUR 1,981 in the whole country, EUR 3,363 in Greater Helsinki and EUR 1,653 elsewhere in Finland.

Prices of new dwellings in terraced houses rose by 3.1 per cent from the previous quarter in the whole country. Prices went up by 1.1 per cent in Greater Helsinki and by 3.8 per cent in the rest of Finland. Compared with the corresponding period of 2017, prices of new dwellings in terraced houses rose by 0.5 per cent in the whole country. In Greater Helsinki, prices went up by 3.1 per cent, whereas in the rest of Finland they fell by 0.4 per cent.

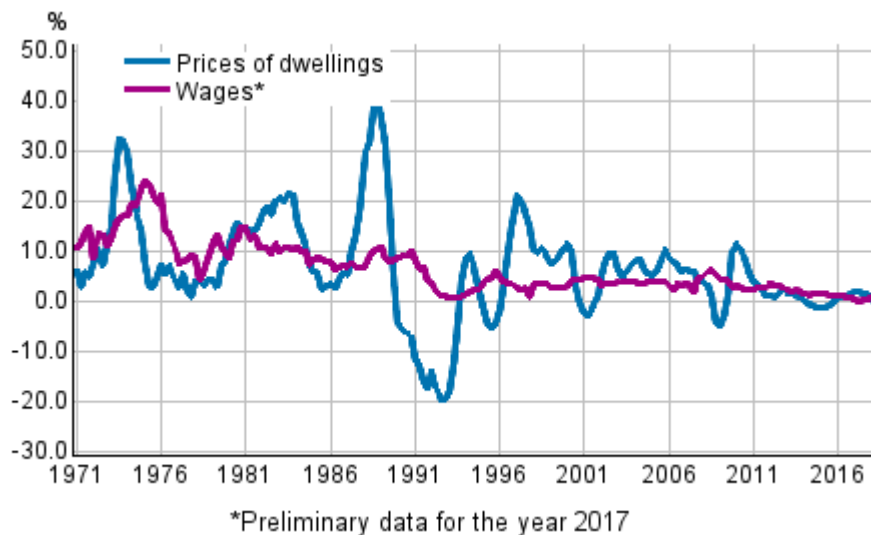
In the second quarter of 2018, the average price per square metre of a new dwelling in a terraced house was EUR 3,052 in the whole country, EUR 4,080 in Greater Helsinki and EUR 2,821 elsewhere in the country.

3. Changes in prices of dwellings and in earnings level

The price development of dwellings has varied much within the last 40 years or so. During the overheating of the housing market, prices rose by over 40 per cent in the last quarter of 1988 compared with the previous year. Correspondingly, during the recession of the early 1990s, prices of dwellings fell by as much as 20 per cent from the year before. From 1996 dwelling prices rose up to the middle of the year 2008, with the exception of the year 2001. The outbreak of the international financial crisis in autumn 2008 slowed down the housing market and prices fell by five per cent from the third quarter of 2008 until the first quarter of 2009. From the middle of 2009 onwards, prices of dwellings have continued to grow again. The rise in dwelling prices has clearly slowed down from year 2011 and in 2014, the prices of dwellings made a temporarily downturn.

Over the same time period changes in wages and salaries have been more moderate than changes on the housing market, except for the mid-1970s, when the earnings level rose by over 20 per cent per year due to the great inflation. Over the 2000s wages and salaries have gone up yearly by an average of 3.0 per cent. The average annual rise in prices of dwellings has been about 0.4 percentage point faster, which has undermined the purchasing power of wages and salaries on the housing markets.

Figure 1. Year-on-year changes in prices of dwellings and in wages and salaries 1971–2018, 2nd quarter



Appendix tables

Appendix table 1. Unencumbered average prices per square metre of old dwellings in housing companies, June 2018¹⁾

| Area | Price, EUR/m ² | Index 2015=100 | Monthly change, % | Yearly change, % |
|--|---------------------------|----------------|-------------------|------------------|
| Whole country | 2,122 | 103.4 | -0.4 | 1.1 |
| Greater Helsinki | 3,767 | 108.4 | -0.9 | 2.9 |
| Rest of the country (whole country - Greater Helsinki) | 1,638 | 98.9 | 0.1 | -0.7 |
| Satellite municipalities ²⁾ | 2,174 | 101.3 | 2.3 | 1.9 |
| Southern Finland | 2,558 | 105.6 | -0.7 | 2.0 |
| Western Finland | 1,685 | 100.2 | -0.1 | -0.6 |
| Eastern Finland | 1,424 | 91.4 | 1.8 | -2.7 |
| Northern Finland | 1,525 | 98.9 | 0.4 | -1.1 |
| Helsinki | 4,418 | 110.3 | -1.2 | 2.9 |
| Espoo-Kauniainen | 3,401 | 106.2 | -0.3 | 2.9 |
| Vantaa | 2,686 | 104.1 | -0.5 | 3.2 |
| Tampere | 2,528 | 106.5 | -2.3 | 3.3 |
| Turku | 2,067 | 106.2 | -1.6 | 0.2 |
| Oulu | 1,766 | 103.1 | 2.8 | -0.4 |

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, June 2018¹⁾

| Area | Price, EUR/m ² | Index 2015=100 | Monthly change, % | Yearly change, % |
|--|---------------------------|----------------|-------------------|------------------|
| Whole country | 2,264 | 104.9 | -1.5 | 1.1 |
| Greater Helsinki | 4,026 | 110.2 | -1.2 | 3.1 |
| Rest of the country (whole country - Greater Helsinki) | 1,641 | 98.6 | -1.9 | -1.4 |
| Satellite municipalities ²⁾ | 2,042 | 101.5 | 3.4 | 1.1 |
| Southern Finland | 2,690 | 107.2 | -1.4 | 1.7 |
| Western Finland | 1,688 | 99.2 | -4.4 | -1.1 |
| Eastern Finland | 1,582 | 93.2 | 1.8 | -0.1 |
| Northern Finland | 1,631 | 100.5 | 4.3 | 0.0 |
| Helsinki | 4,749 | 111.7 | -1.0 | 3.1 |
| Espoo-Kauniainen | 3,279 | 107.6 | -2.5 | 3.2 |
| Vantaa | 2,470 | 104.1 | -1.2 | 3.1 |
| Tampere | 2,536 | 106.6 | -3.7 | 4.6 |
| Turku | 1,946 | 103.8 | -4.2 | -0.7 |
| Oulu | 1,941 | 103.2 | 4.1 | -2.2 |

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, June 2018¹⁾

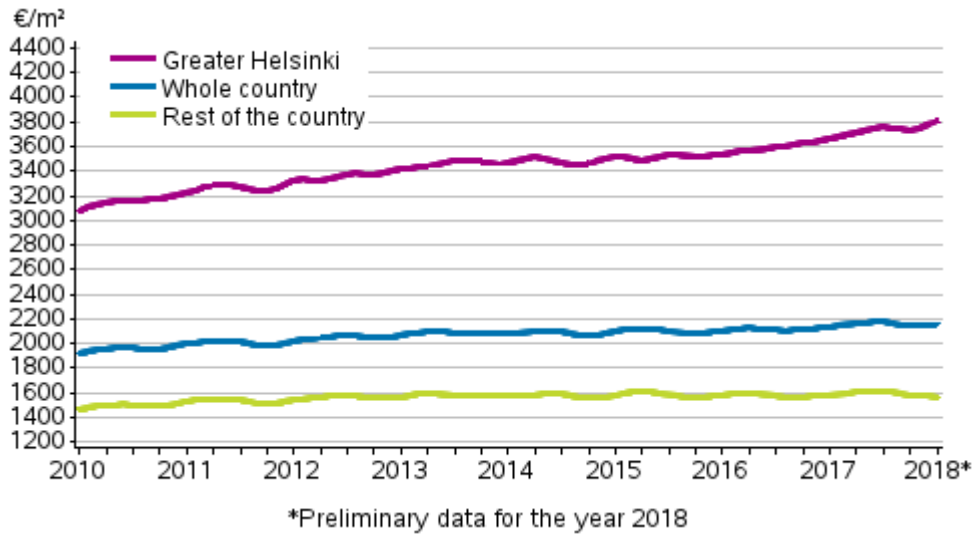
| Area | Price, EUR/m ² | Index 2015=100 | Monthly change, % | Yearly change, % |
|--|---------------------------|----------------|-------------------|------------------|
| Whole country | 1,966 | 101.3 | 1.1 | 1.0 |
| Greater Helsinki | 3,373 | 104.8 | -0.2 | 2.6 |
| Rest of the country (whole country - Greater Helsinki) | 1,634 | 99.2 | 2.1 | 0.0 |
| Satellite municipalities ²⁾ | 2,265 | 101.3 | 1.7 | 2.5 |
| Southern Finland | 2,390 | 103.1 | 0.5 | 2.4 |
| Western Finland | 1,682 | 101.1 | 4.6 | -0.1 |
| Eastern Finland | 1,286 | 89.4 | 1.7 | -5.5 |
| Northern Finland | 1,449 | 97.8 | -2.5 | -2.0 |
| Helsinki | 3,518 | 104.6 | -2.3 | 1.9 |
| Espoo-Kauniainen | 3,490 | 105.3 | 1.3 | 2.8 |
| Vantaa | 2,954 | 104.2 | 0.1 | 3.3 |
| Tampere | 2,514 | 106.5 | 0.4 | 1.1 |
| Turku | 2,396 | 111.2 | 4.1 | 1.7 |
| Oulu | 1,626 | 103.0 | 1.5 | 1.3 |

1) Preliminary data

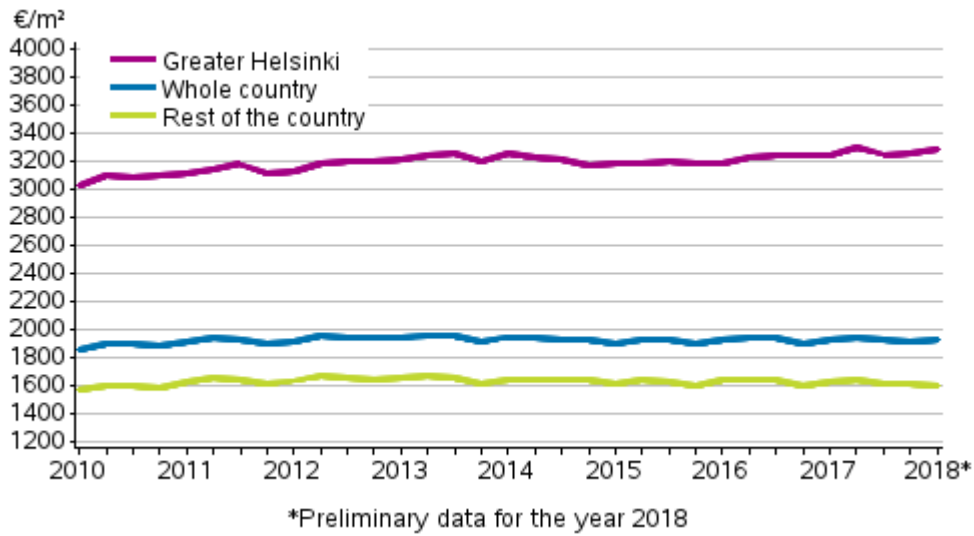
2) Satellite municipalities = Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti

Appendix Figures

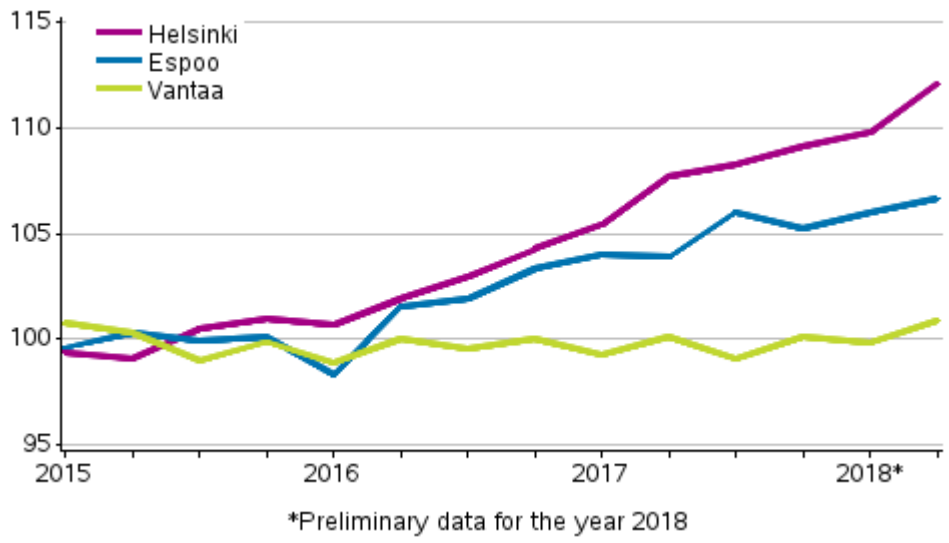
Appendix figure 1. Average prices per square meter of dwellings in old blocks of flats



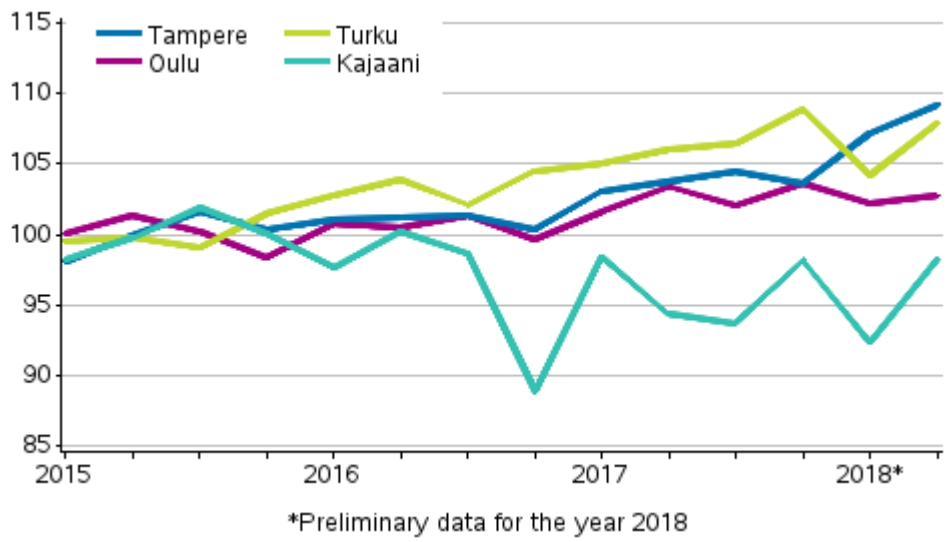
Appendix figure 2. Average prices per square meter of dwellings in old terraced houses



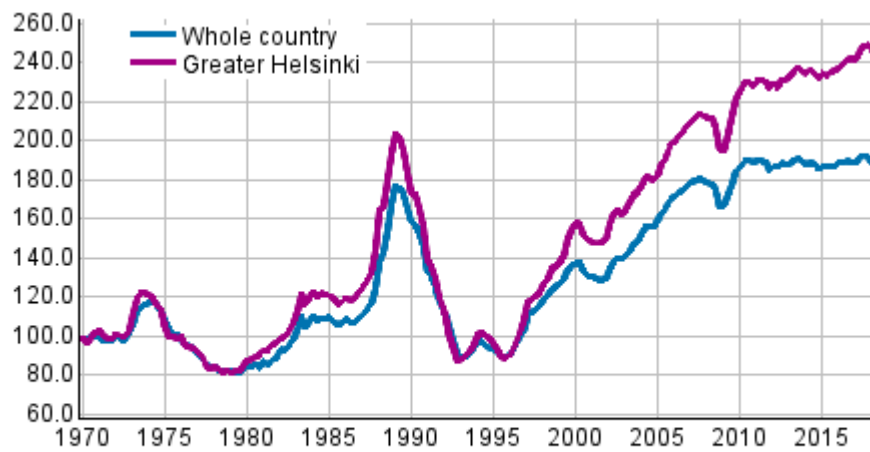
Appendix figure 3. Price development of old dwellings in blocks of flats in Helsinki Metropolitan Area, index 2015=100



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



*Preliminary data for the year 2018

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 statistics¹⁾

| Area and reference time | | Monthly change, % | | Revision, percentage point |
|-------------------------|---------|--------------------------|-------------|----------------------------|
| | | Latest release 31.7.2018 | 1st release | |
| Whole country | 02/2018 | 0.8 | 0.6 | 0.2 |
| | 03/2018 | -0.5 | -0.6 | 0.1 |
| | 04/2018 | 1.5 | 0.9 | 0.6 |
| | 05/2018 | 1.0 | 0.2 | 0.8 |
| Greater Helsinki | 02/2018 | 0.7 | 0.7 | 0.0 |
| | 03/2018 | 0.1 | 0.4 | -0.3 |
| | 04/2018 | 1.0 | 1.3 | -0.3 |
| | 05/2018 | 1.4 | 0.6 | 0.8 |
| Rest of the country | 02/2018 | 1.0 | 0.5 | 0.5 |
| | 03/2018 | -1.0 | -1.6 | 0.6 |
| | 04/2018 | 1.9 | 0.6 | 1.3 |
| | 05/2018 | 0.6 | -0.2 | 0.8 |

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 statistics¹⁾

| Area and reference time | | Annual changes, % | | Revision, percentage point |
|-------------------------|---------|--------------------------|-------------|----------------------------|
| | | Latest release 31.7.2018 | 1st release | |
| Whole country | 02/2018 | 0.6 | 0.9 | -0.3 |
| | 03/2018 | -0.8 | -1.2 | 0.4 |
| | 04/2018 | 0.5 | -0.1 | 0.6 |
| | 05/2018 | 1.5 | 0.8 | 0.7 |
| Greater Helsinki | 02/2018 | 3.4 | 2.9 | 0.5 |
| | 03/2018 | 2.3 | 2.2 | 0.1 |
| | 04/2018 | 3.3 | 3.2 | 0.1 |
| | 05/2018 | 4.0 | 3.5 | 0.5 |
| Rest of the country | 02/2018 | -1.9 | -0.9 | -1.0 |
| | 03/2018 | -3.7 | -4.3 | 0.6 |
| | 04/2018 | -2.1 | -3.2 | 1.1 |
| | 05/2018 | -0.9 | -1.7 | 0.8 |

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 statistics¹⁾

| Area and reference time | | Quarterly change, % | | Revision, percentage point |
|-------------------------|--------|--------------------------|-------------|----------------------------|
| | | Latest release 31.7.2018 | 1st release | |
| Whole country | 2/2017 | 1.1 | 1.5 | -0.4 |
| | 3/2017 | -0.3 | 0.1 | -0.4 |
| | 4/2017 | -0.3 | 0.0 | -0.3 |
| | 1/2018 | -0.4 | -0.4 | 0.0 |
| Greater Helsinki | 2/2017 | 1.3 | 1.9 | -0.6 |
| | 3/2017 | 0.2 | 0.3 | -0.1 |
| | 4/2017 | 0.4 | 0.4 | 0.0 |
| | 1/2018 | 0.3 | 0.2 | 0.1 |
| Rest of the country | 2/2017 | 0.8 | 1.2 | -0.4 |
| | 3/2017 | -0.7 | -0.1 | -0.6 |
| | 4/2017 | -1.0 | -0.5 | -0.5 |
| | 1/2018 | -1.0 | -1.0 | 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 quarterly change percentages between the latest and first release.

Revisions to data on yearly changes in prices of dwellings in housing companies, quarterly statistics¹⁾

| Area and reference time | | Annual change, % | | Revision, percentage point |
|-------------------------|--------|--------------------------|-------------|----------------------------|
| | | Latest release 31.7.2018 | 1st release | |
| Whole country | 2/2017 | 1.9 | 1.2 | 0.7 |
| | 3/2017 | 1.4 | 1.0 | 0.4 |
| | 4/2017 | 1.4 | 1.5 | -0.1 |
| | 1/2018 | 0.1 | 0.0 | 0.1 |
| Greater Helsinki | 2/2017 | 3.4 | 2.7 | 0.7 |
| | 3/2017 | 3.2 | 2.6 | 0.6 |
| | 4/2017 | 2.9 | 2.8 | 0.1 |
| | 1/2018 | 2.2 | 2.1 | 0.1 |
| Rest of the country | 2/2017 | 0.5 | -0.1 | 0.6 |
| | 3/2017 | -0.3 | -0.4 | 0.1 |
| | 4/2017 | 0.0 | 0.4 | -0.4 |
| | 1/2018 | -1.9 | -1.9 | 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.

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/m²). The published prices per square metre are weighted geometric means of prices of square metre

Floor area of dwelling: The floor area (m²) of a dwelling is calculated from the inner surfaces of the walls enclosing it. The floor areas of auxiliary spaces (utility space, walk-in wardrobe, etc.), bathroom, hobby room, fireplace room, sauna in 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 dwelling. Garage, cellar, sauna space in unoccupied basement, unheated storage space, balcony, porch, veranda, vestibule and unoccupied attic space are not included in the floor area of a 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).

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. The base period for the indices of old dwellings in housing companies are 1970, 1983, 2000, 2005, 2010 and 2015. The base period for new dwellings are 2005 and 2010.

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.

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.

Classifications:

Annual and quarterly statistics:

Regional division, old dwellings: The statistics use diverse area combinations, such as Greater Helsinki Area, satellite municipalities around the Greater Helsinki Area, regions and urban sub-areas. The Greater Helsinki Area comprises Helsinki, Espoo, Vantaa and Kauniainen, which in statistics is included in Espoo. The satellite municipalities are Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti. Regions are defined according to the decision of the Council of State. The urban sub-areas are formed of postal code areas using price level and location as the criteria. Details of the used regional classifications are appended to this publication and can be found on Statistics Finland's website.

Regional division, new dwellings: Due to the low number of transactions, the statistics on the prices of new dwellings are compiled according to a less detailed regional division than the statistics on the prices of 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 uses the division into major regions. The area categories are Whole country, Greater Helsinki, Rest of Finland (the same as with old dwellings, Whole country exclusive of Greater Helsinki), Rest of Uusimaa (exclusive of Greater Helsinki) and major regions Southern Finland, Western Finland, Eastern Finland, and Northern Finland.

Monthly statistics:

Regional division: 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.

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. The weights of new dwellings are the consumption expenditure weights of the dwellings purchased in 2008 to 2012. The data of five years surrounding the base year are utilised in the calculation of the weights of new dwellings because the number and sizes of purchased new dwellings vary much by year and region.

A more detailed methodological description 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)).

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. Many purchasers pay the tax faster than this and in transactions intermediated by real estate agents the tax is paid at the time of transaction.

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 become revised](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.

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.

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. Preliminarity 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. Statistics Finland's data derive from the Tax Administration's comprehensive files, and thus cover exhaustively all 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.

Inquiries

Petri Kettunen 029 551 3558

Elina Vuorio 029 551 3385

Director in charge:

Mari Ylä-Jarkko

asuminen.hinnat@stat.fi

www.stat.fi

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