

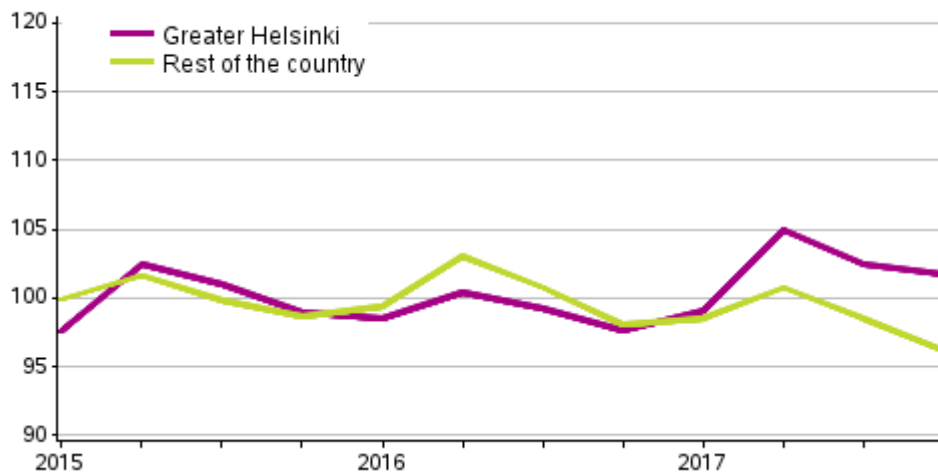
# Real estate prices

2017, 4th quarter

## Prices of old single-family houses fell by 1.3 per cent year-on-year in October to December

In the fourth quarter of 2017, prices of old single-family houses fell by an average of 1.3 per cent from the previous year in the whole country. In Greater Helsinki, prices went up by 4.2 per cent while in the rest of the country they fell by 1.9 per cent compared with the corresponding period of the previous year. Compared with the previous quarter, prices of old single-family houses decreased by an average of 2.2 per cent in the whole country. These data derive from Statistics Finland's Index of real estate prices, which is compiled by utilising data from the real estate transaction register of the National Land Survey of Finland.

### Development of prices in old detached houses, index 2015=100



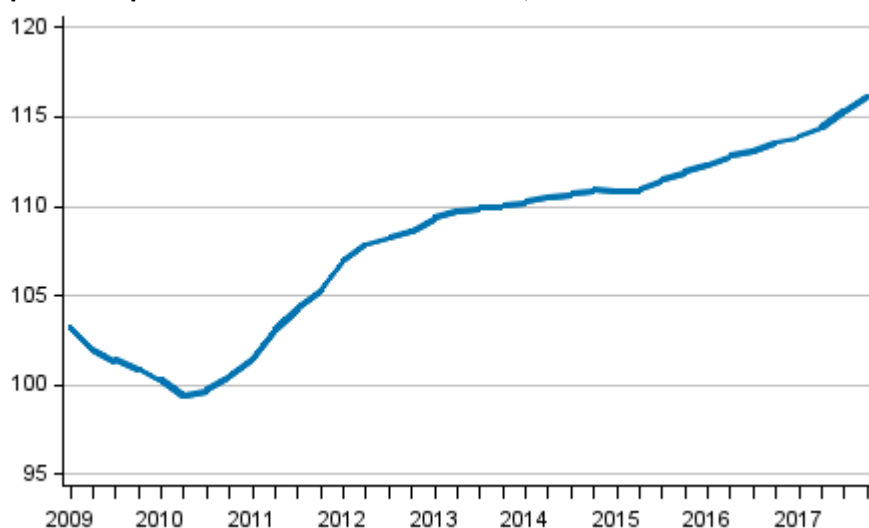
In the whole country, the average price per square metre of old single-family houses was EUR 1,543 in the fourth quarter of 2017. In Greater Helsinki, the average price per square metre of single-family houses was EUR 3,083. In the rest of the country, the average price per square metre was EUR 1,438.

In the fourth quarter of 2017, prices of single-family house plots fell by 0.1 per cent in the whole country from the year before. From the previous quarter, prices of plots increased by 0.7 per cent. The average

price per square metre for a single-family house plot was EUR 23.7 in the whole country and the average plot size was 2,658 square metres.

In the fourth quarter of 2017, prices for new single-family houses rose by 2.3 per cent from the previous year in the whole country. Compared with the previous quarter, prices rose by 0.7 per cent. The data for new single-family houses are based on the building cost index and price data describing professional and own-account construction.

**Development of prices in new detached houses, index 2010=100**



In 2017, prices of old single-family houses fell by 1.3 per cent in the whole country. In Greater Helsinki, prices went up by 3.1 per cent, while in the rest of the country they went down by 1.8 per cent. In 2017, the average price per square metre for a single-family house was EUR 3,087 in Greater Helsinki and EUR 1,464 in the rest of the country. Prices of new single-family houses went up by 1.8 per cent in the whole country in 2017.

In 2017, prices of new single-family house plots fell by 0.2 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 1.4 per cent. In 2017, the average price per square metre for a single-family house plot was EUR 158.3 in Greater Helsinki and EUR 16.0 in the rest of the country.

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# Appendix tables

**Appendix table 1. Price index for old detached houses, 4th quarter 2017**

Region	Average price, EUR/m <sup>2</sup>	Index 2015=100	Quarterly change	Yearly change	Number
Whole country	1,543	96.7	-2.2	-1.3	3,113
Greater Helsinki	3,083	101.7	-0.8	4.2	171
Rest of the country (whole country - Greater Helsinki)	1,438	96.2	-2.3	-1.9	2,942
Satellite municipalities <sup>1)</sup>	1,997	97.4	-4.2	-2.7	285
Municipalities under 20000 inhabitants	1,212	94.7	-2.9	-4.1	1,312
Municipalities 20000-59999 inhabitants	1,671	98.0	-2.7	1.1	962
Municipalities 60000-100000 inhabitants	1,278	94.2	-5.9	-4.6	338
Municipalities over 100000 inhabitants	2,210	99.9	1.6	2.0	501
Southern Finland	1,786	98.8	-1.9	1.2	1,519
Eastern Finland	1,187	94.5	-2.3	-2.9	326
Western Finland	1,353	93.9	-3.9	-5.5	875
Northern Finland	1,231	97.5	0.5	0.2	393

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

**Appendix table 2. Price index for single-family house plots, 4th quarter 2017**

Region	Average price, EUR/m <sup>2</sup>	Index 2015=100	Quarterly change	Yearly change	Number
Whole country	23.7	96.8	0.7	-0,1	799
Greater Helsinki	192.2	105.0	5.9	3,2	58
Rest of the country (whole country - Greater Helsinki)	15.6	94.1	-1.0	-1,2	741
Satellite municipalities <sup>1)</sup>	38.4	99.6	-4.3	-4,7	84
Municipalities under 20000 inhabitants	8.3	88.5	-8.7	2,6	369
Municipalities 20000-100000 inhabitants	21.8	95.1	1.8	-6,7	282
Municipalities over 100000 inhabitants	108.7	104.8	6.3	5,8	148
Southern Finland	38.7	99.3	0.7	-1,3	368
Eastern Finland	6.7	78.9	-1.6	0,0	64
Western Finland	18.2	97.0	3.8	9,2	249
Northern Finland	7.8	91.5	-6.4	-15,4	118

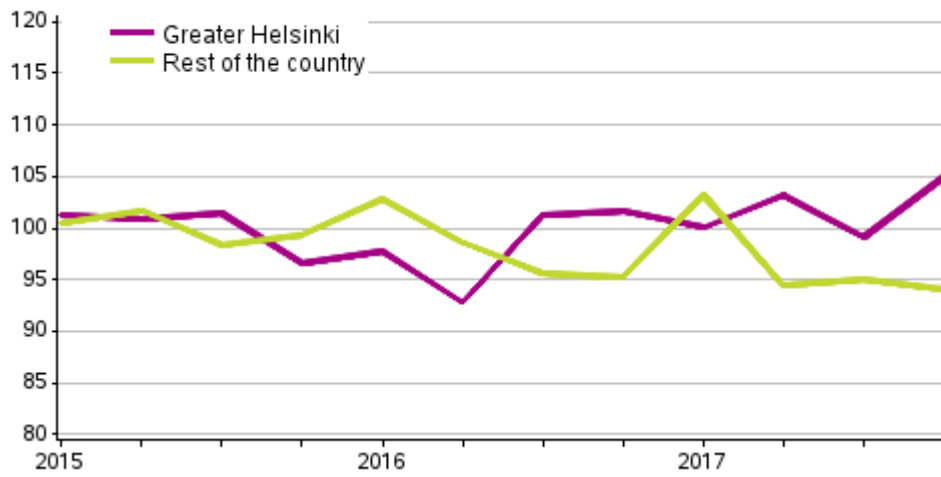
1) Satellite municipalities = Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti

**Appendix table 3. Price index for new detached houses, 2010=100**

Year / Quarter	Index 2010=100	Quarterly change, %	Yearly change, %
2009	1st quarter	103,2	.
	2nd quarter	102,0	-1.2
	3rd quarter	101,4	-0.6
	4th quarter	100,9	-0.5
	Year	101,9	.
2010	1st quarter	100,3	-0.6
	2nd quarter	99,4	-0.9
	3rd quarter	99,8	0.3
	4th quarter	100,5	0.7
	Year	100,0	-1,8
2011	1st quarter	101,4	0.9
	2nd quarter	103,1	1.7
	3rd quarter	104,3	1.2
	4th quarter	105,3	0.9
	Year	103,5	3,5
2012	1st quarter	107,0	1.6
	2nd quarter	107,9	0.9
	3rd quarter	108,2	0.3
	4th quarter	108,6	0.4
	Year	107,9	4,3
2013	1st quarter	109,4	0.7
	2nd quarter	109,8	0.4
	3rd quarter	109,9	0.1
	4th quarter	110,0	0.1
	Year	109,8	1,7
2014	1st quarter	110,2	0.2
	2nd quarter	110,6	0.3
	3rd quarter	110,7	0.1
	4th quarter	110,9	0.2
	Year	110,6	0,8
2015	1st quarter	110,9	-0.0
	2nd quarter	111,0	0.1
	3rd quarter	111,5	0.5
	4th quarter	111,9	0.4
	Year	111,3	0,6
2016	1st quarter	112,3	0.3
	2nd quarter	112,8	0.4
	3rd quarter	113,1	0.2
	4th quarter	113,6	0.5
	Year	113,0	1,5
2017	1st quarter	113,9	0.3
	2nd quarter	114,4	0.4
	3rd quarter	115,4	0.8
	4th quarter	116,2	0.7
	Year	115,0	1,8

# Appendix figures

**Appendix figure 1. Price development for single-family house plots, index 2015=100**



# Quality description: Real estate prices

## 1. Relevance of statistical information

### 1.1. Data content and purpose of use

The statistics on real estate prices describe the prices of single-family houses and single-family house plots and their quarterly and annual changes and price levels. Data on old single-family houses and plots are available with different classifications starting from 1985.

The price index for newly built single-family houses describes how much the price of building an average single-family house has developed. Data on new single-family houses on the level of the whole country are available starting from 2009.

### 1.2. Concepts, classifications and data

#### **Concepts**

*Professional construction:* Professional construction refers to commercial building, i.e. building that is carried out against payment, cf. own-account construction.

*Floor area:* Floor area includes all spaces intended for continuous living use of a building. Floor area is the area remaining between the inner surfaces of walls confining the building. Data on floor area are derived from the Population Register Centre's Building and Dwelling Register.

*Real estate:* A real estate is a unit of ownership in a land or water area with a specific code entered in the Tax Administration's real estate register. The real estate includes the buildings and fixtures located there and owned by the owner of the real estate.

*Average price:* The average prices published in the statistics are floor area-weighted arithmetic averages of prices per square metre (EUR per m<sup>2</sup>).

*Average area:* The area of single-family houses refers to floor area (m<sup>2</sup>) and the area of single-family house plots to the total area of the plot.

*(Nominal) price index:* Indicates the change in prices compared with the index base time period (2005=100, 2010=100, 2015=100).

*Single-family house real estate:* A real estate whose use purpose is a residential building area and which has only housing buildings and ancillary buildings, and it is not located in the shore plan area. If the real estate is in a building plan or town plan area it is also required that the nature of the plan is a residential building or detached house area.

*Single-family house plot:* A real property whose use purpose is a residential building and has no buildings. The real estate must not be situated in a shore plan area either. If the real estate is in a town plan area it is also required that the nature of the plans has to be a residential detached house area.

*Own-account construction:* Own-account construction refers to building projects carried out by households, which include building of detached houses without using paid labour force, cf. professional construction.

*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.

*Real price index:* Real price change compared to the base period of the index (2005=100, 2010=100, 2015=100). The real price index is derived by dividing the point figure of the nominal price index with the point figure of the Consumer Price Index of the corresponding time period.

#### *Distribution parameters*

Lower quartile = 25 per cent of prices per square metre are lower than or equal to the lower quartile.

Median = Middle price per square metre in order of size.

Upper quartile = 75 per cent of prices per square metre are lower than or equal to the upper quartile.

### **Classifications**

Regional division: The regional classification used in the statistics on single-family houses and single-family house plots contains data on the following areas: whole country, Greater Helsinki, rest of Finland, satellite municipalities, and major regions. Data are also calculated classified by the number of inhabitants. For the index of newly built single-family houses, data are published only on the level of the whole country.

The Greater Helsinki area includes Helsinki, Espoo, Vantaa and Kauniainen. The satellite municipalities are Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula and Vihti. The division of major areas is the NUTS2 division into major regions that came into force in 2003 where Eastern Finland and Northern Finland are separate areas. Åland is not included in the statistics.

### **Data**

The statistics on real estate prices are based on the data in the transaction prices in the National Land Survey's purchase price register, which is supplied to Statistics Finland quarterly. In addition, background information is searched for the transaction price data from the Population Register Centre's Building and Dwelling Register.

For the price index for newly built single-family houses, prices are collected on materials, prefabricated houses, and connection and official charges, and on planning and monitoring costs.

## **2. Methodological description of survey**

Indices of real estate prices are indices standardised for quality based on hedonistic regression analysis. Indices standardised for quality describe pure price change, that is, the effect on prices of qualitative differences of single-family houses/single-family house plots sold at different is removed. Before index calculation, the data have been limited so that single-family house plots of size 450(town plan)/1,000(other than town plan) to 20,000 m<sup>2</sup> and single-family houses with a floor area of 40 to 440 m<sup>2</sup> are included. In addition, clearly deviating price observations are removed from the calculation based on annual updated price limits. Indices are calculated according to the classification of area and population as the fixed-weight Log-Laspeyres index. Weights of the 2015=100 series are based on the data of the register of buildings and dwellings for 2015.

The statistical model, review procedures, weight structure and classifications used in the calculation of old single-family houses and single-family house plots were renewed in 2017. In addition, the new base year 2015=100 was taken into use.

In the index regression models, the explanatory factors in the model of single-family houses are the house's age, the square of age, abutting a shoreline, floor area and in Greater Helsinki the distance to Helsinki and elsewhere in the country the distance to a big, medium size and small town. The model renewed in 2017 takes better into account the distance of the real estate to the town or municipality centres.

In the regression model of plots, the explanatory factors are the quality of the plot plan (town/master, sparsely populated), nature of conveyance (municipality/other), abutting a shoreline, size of the plot, plot efficiency, and in Greater Helsinki the distance to Helsinki and elsewhere in the country the distance to a big, medium size and small town. In addition, the plot model takes into account the effect of the plot area separately in town plan area vs. other area. The model renewed in 2017 takes better into consideration the distance of the plot, plot efficiency and the quality of the plan in the plot area.

In the renewed statistics, plots located in a master plan area are also included, while before they were excluded from the statistics. Observations are not limited based on the distance of municipality/Employment and Economic Development Centre or building efficiency, as in the previous statistics. Changes in data limitations have a lowering effect on plots' prices per square metre.

In the renewal of 2017, the area classification and the classification based on population were also updated. In the classification based on population, the main change is that Kuopio moved to the category of over 100,000 inhabitants.



The methodological description depicting the previously published series of the statistics can be read under the Methodological description section of the statistics.

The aim of the price index of newly built single-family houses is to follow the development of the prices of single-family housing construction. The index is formed by using the Building Cost Index and the indices describing professional and own-account construction. The sub-index describing construction of detached houses is derived from the Building Cost Index to the statistics. The price index for professional construction is a construction sale price index with variable weights and prices. For own-account construction, the development of total costs is followed from planning to yard work.

The index for newly built single-family houses is calculated according to the Laspeyres price index. In addition to the weight structure of the base year, the index calculation requires monthly price monitoring of selected commodities.

The weights of newly built single-family houses are formed for four components. The mode of building is a detached house built on-site or from prefabricated elements and the constructor is a professional or own-account builder. The price index for newly built single-family houses is calculated by weighting these together.

### **3. Correctness and accuracy of data**

#### **3.1 Reliability of statistics**

The price statistics of old single-family houses and single-family house plots are based on the National Land Survey's purchase price register which contains all real estate transactions. The data are checked before the statistics are calculated and the observations which have clearly deviating prices or areas or are otherwise deficient are removed from the calculations.

The data for new single-family houses are based on the construction price index and the development of prices of professional and own-account construction. Prices are measured by means of materials, wages and salaries, and prefabricated houses, and connection and official charges.

#### **3.2. Accuracy of the statistics**

When viewing regional price indices of old single-family houses and plots, attention should be paid to the number of transactions in the area. If only a few transactions are made in the area, a few deviating cases can have a significant effect on the development of the index in the area. Then it would be advisable to examine longer term development instead of quarterly changes. The statistics do not include single-family houses on rented plots.

### **4. Timeliness and promptness of data**

The statistics on real estate prices are published quarterly in approximately 10 weeks from the end of a quarter. The released data are final data. Annual data are released in connection with the publication for the fourth quarter.

### **5. Accessibility and transparency/clarity of data**

The basic publication and database tables of the index of real estate prices are available on Statistics Finland's website ([http://tilastokeskus.fi/til/kihi/index\\_en.html](http://tilastokeskus.fi/til/kihi/index_en.html)).

Data on transactions and other detailed information on the realised transaction prices of real estate can be had from the National Land Survey's ([www.maanmittauslaitos.fi/en](http://www.maanmittauslaitos.fi/en)) Official Purchase Price Register, Customer Service tel. +358 29 530 1110.

### **6. Comparability of statistics**

#### **6.1. Comparability with other data**

The National Land Survey of Finland publishes the purchase price statistics based on purchase price data. The main difference between the price index compiled by Statistics Finland and the National Land Survey's purchase price statistics is that the purchase price statistics present primarily the distribution data of transactions and prices at a given period, while the price index focuses on measuring changes in prices from one period to another. The latter takes account of price differences caused by real estate properties sold in different periods and their effect is removed in the index calculation.

## 6.2. Comparability over time

For old single-family houses and plots, data are available starting from 1985. Data on the index of real estate prices 1985=100 are available with a more detailed classification between 1985 and 2009. In addition, there is a long time series on the index of real estate prices 1985=100 on level of the whole country, Greater Helsinki and the rest of Finland. This time series is always chained with the newest index, whereby the changes in the index correspond to the changes in the newest index. In connection with changing the base year, the methodological changes made are also reflected in the annual changes of the long time series.

The statistical model, review procedures, weight structure and classifications used in the calculation of old single-family houses and single-family house plots were renewed in 2017. The base year of the index was changed into 2015=100. Due to the changes, retrospectively calculated series for 2015 and 2016 differ from the previously published indices (2005=100 series, 1985=100).

For new single-family houses, data are available from 2009 onwards.

## 7. Coherence and consistency/uniformity

In addition to quarterly statistics on real estate prices, Statistics Finland publishes monthly, quarterly and annual statistics on dwellings in housing companies. The National Land Survey also publishes data on real estate transactions. Data on real estate prices are part of the index of owner-occupied housing prices published by Statistics Finland.

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