

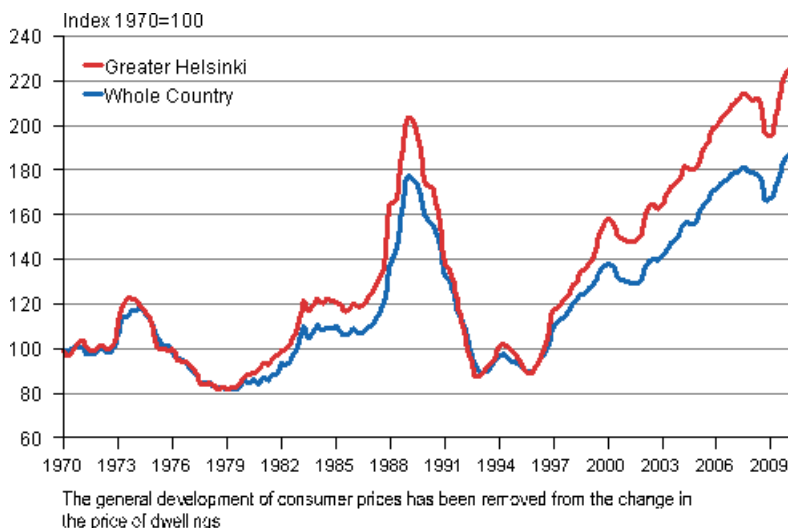
# Prices of dwellings

2010, 1st quarter

## Prices of dwellings rose in January to March

According to preliminary data, prices of dwellings in old blocks of flats and in terraced houses went up by 2.2 per cent in the whole country compared with the previous quarter. In Greater Helsinki, prices went up by 2.8 per cent and in the rest of the country by 1.7 per cent. Compared with the corresponding period of the year before, prices went up by 11.3 per cent in the whole country. In Greater Helsinki the growth amounted to 15.7 per cent and in the rest of the country to 7.7 per cent.

### Real price index\* of dwellings in old blocks of flat quarterly I/1970 —I/2010, index 1970=100



In the first quarter of 2010 the average price per square metre of an old dwelling in a block of flats was EUR 2,071 in the whole country, EUR 3,169 in Greater Helsinki and EUR 1,576 elsewhere in the country. These data derive from the statistics on the prices of dwellings compiled by Statistics Finland on the basis of the Tax Administration's data. The preliminary data comprise roughly two-thirds of completed transactions of dwellings in old blocks of flats and in terraced houses.

From the previous quarter prices rose by 2.9 per cent in Helsinki, by 2.3 per cent in Espoo and Kauniainen, and by 3.3 per cent in Vantaa. Prices went up by 2.1 per cent in Tampere, by 3.2 per cent in Turku and by 1.0 per cent in Oulu. Prices declined by 0.4 per cent in Turku. Compared with the corresponding period

of the previous year, prices rose by 16.4 per cent in Helsinki, by 15.4 per cent in Espoo and Kauniainen, and by 12.9 per cent in Vantaa. In Tampere they rose by 10.1 per cent, in Turku by 9.0 per cent and in Oulu by 6.6 per cent. When comparing annual changes of dwelling prices it should be noted that in the first quarter of 2009 prices were still falling.

When compared with the previous quarter, the prices of dwellings in new blocks of flats and terraced houses went up by 4.2 per cent in the whole country in January to March 2010. In Greater Helsinki, prices went up by 6.3 per cent and in the rest of Finland by 3.1 per cent. The average price per square metre of new dwellings was EUR 2,955 in the whole country, EUR 3,944 in Greater Helsinki and EUR 2,559 in the rest of Finland. Compared with the corresponding period of the year before, prices of new dwellings went up by 8.4 per cent in the whole country. In Greater Helsinki prices went up by 14.7 per cent and in the rest of Finland by 5.1 per cent. The data are based on the price information of the largest building contractors and estate agents.

### *Annual statistics for 2009*

In 2009 a total of 71,00 transactions of old dwellings in blocks of flats were completed in the whole country. The number of transactions increased in the whole country by slightly over one per cent from the previous year. In Greater Helsinki transactions increased by circa nine per cent, meanwhile in the rest of the country they decreased by over one per cent. Last year the average price per square metre of an old dwelling in a block of flats was EUR 1,934 in the whole country, EUR 2,895 in Greater Helsinki and EUR 1,501 elsewhere in the country. From 2008, prices of old dwellings fell by 0.3 per cent in the whole country. In Greater Helsinki prices remained unchanged, whereas in the rest of Finland they fell by 0.5 per cent.

In last year value of housing transactions was EUR 9.1 billion, which was circa EUR 0.4 billion more than 2008. In the region of Uusimaa transactions were made circa 35 per cent of all transactions and their value was almost one half of the total sum.

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## ***1. Prices of blocks of flats went up in first quarter***

According to preliminary data prices of old blocks of flats went up an average 1.9 per cent in the whole country from previous quarter. In Greater Helsinki prices went up by 2.4 per cent and in the rest of the country prices went up by 1.3 per cent. Average price per square metre in old blocks of flats was in whole country EUR 2,142, in Greater Helsinki EUR 3,204 euro and in the rest of country EUR 1,554. From previous year prices went up by 11.8 per cent in whole country. In Greater Helsinki prices went up by 15.7 per cent and in rest of country prices by 7.9 per cent. The information is from Statistics Finland's quarterly house price statistics based on data from the Tax Authorities. Preliminary data comprise roughly two-thirds of completed transactions in dwellings in old blocks of flats and in terraced houses.

From previous quarter prices of old apartments went up by 2.9 per cent in Helsinki, by 2.6 per cent in Vantaa and in Espoo-Kauniainen 0.2 per cent. Prices went up in Tampere by 0.8 per cent, in Jyväskylä by 3.0 per cent and in Oulu by 0.4 per cent. In Turku prices went down by 0.4 per cent. Compared with previous year prices went up in Helsinki by 16.4 per cent, in Espoo-Kauniainen by 13.5 per cent and in Vantaa 13.8 per cent. In Tampere prices went up by 11.0 per cent, in Turku by 9.0 per cent, in Jyväskylä by 8.8 per cent and in Oulu by 5.0 per cent. Average price per square metre in old blocks of flats was EUR 3,552 in Helsinki, EUR 2,732 in Espoo-Kauniainen, EUR 2,201 in Vantaa and EUR 2,049 in Tampere. From cities in statistics the cheapest average price per square metre was EUR 1,088 in Kouvola.

By type of apartment reviewed in Greater Helsinki prices of studios and multiple rooms flats went up more than prices of two room flats. In the first quarter of 2010 in Greater Helsinki prices of studios went up by 2.5 per cent and prices of multiple rooms flats by 3.2 per cent from previous quarter. During same time prices of two room flats went up by 1.0 per cent. Elsewhere in Finland prices of studios went up by 3.8 per cent, two room flats by 2.4 per cent and multiple rooms flats by 0.2 per cent from previous quarter.

The prices of dwellings in new blocks of flats in whole country went up by 3.3 per cent. In Greater Helsinki prices went up by 4.9 per cent and in the rest of the country by 2.2 per cent from previous quarter. In the rest of the country prices went up most in Rest of Uusimaa (exclusive of Greater Helsinki region) and Itä-Uusimaa by 5.3 per cent. In Greater Helsinki average price of square metre was EUR 4,151 and in the rest of the country EUR 2,849.

From the year before the prices of dwellings in new blocks of flats went up in the whole country by an average 8.7 per cent. In Greater Helsinki prices went up by 13.3 per cent and in the rest of country by 5.6 per cent. In the rest of the country prices went up most in Eastern Finland by 14.7 per cent. The data are based on the price information of the largest building contractors and real estate agents.

## *2. Prices of terraced houses went up in first quarter*

According to preliminary data prices of old blocks of flats went up by an average 2.7 per cent in whole country, in Greater Helsinki by 3.5 per cent and in the rest of country 2.2 per cent from previous quarter. Average prices of dwelling in old terraced house was EUR 3,101 in Greater Helsinki and EUR 1,601 in the rest of the country.

In Helsinki prices went up by 3.0 per cent, in Espoo-Kauniainen by 3.8 per cent and in Vantaa by 4.1 per cent. In Tampere prices went up by 4.8 per cent, in Jyväskylä by 3.6 per cent and in Lahti 0.2 per cent from previous quarter. In Kuopio prices went up by 2.9 per cent and in Oulu by 1.8 per cent. In Turku prices went down by 0.4 per cent. Average prices per square metre of apartment in old terraced house was EUR 3191 in Helsinki, EUR 2,137 in Tampere and EUR 1,613 in Oulu. From cities belong to the statistics the cheapest average price per square metre, as well as for blocks of flats, was EUR 1,306 in Kouvola.

From first quarter of 2009 the prices of dwellings in old terraced houses went up in the whole country on an average by 10.5 per cent. In Greater Helsinki prices went up 15.6 per cent and in the rest of country prices went up by 7.5 per cent. In Helsinki prices went up by 16.2 per cent, in Espoo-Kauniainen by 16.8 per cent and in Vantaa by 11.9 per cent. Prices went up in Turku by 9.0 per cent, in Tampere by 8.5 per cent, in Lahti by 6.5 per cent, in Jyväskylä by 9.5 per cent, in Kuopio by 6.2 per cent and in Oulu by 8.5 per cent. Prices went down in Kotka by 7.4 per cent, in Rovaniemi by 6.5 per cent and in Kokkola by 2.2 per cent.

The prices of dwellings in new terraced houses went up in the whole country by 5.7 per cent from previous quarter. In Greater Helsinki prices went up by 9.8 per cent and in the rest of country by 4.3 per cent. Prices went up most in East Finland by 17.5 per cent, meanwhile they went down in Western Finland by 1.1 per cent. The average price of dwelling was EUR 3,506 in Greater Helsinki and EUR 2,322 in the rest of country.

From the year before the prices of dwellings in new terraced house prices went up by 7.9 per cent in the whole country. In Greater Helsinki prices went up by 18.4 per cent and in the rest of country 4.4 per cent. In the rest of the country prices went up most in Eastern Finland by 13.8 per cent, meanwhile prices went down in Western Finland by 4.1 per cent.

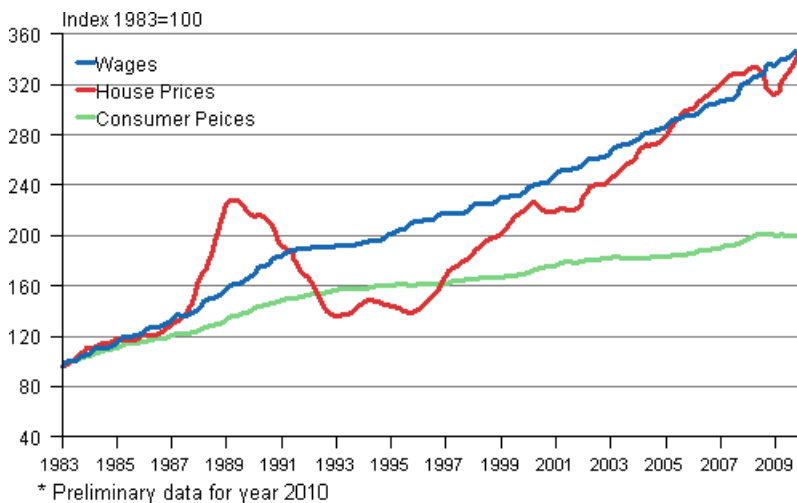
### 3. Changes in House Prices, Wages and Consumer Prices

From 1983 the prices of dwellings in old houses has risen 220 per cent. In the same time period wages went up almost by the same token and consumer prices has doubled. House market "overheated" from 1987 to 1989, when house prices went up extremely 72 per cent. In the same period wages went up 25 per cent. During depression of the begin of 1990s house prices went down nearly 40 per cent. In the same time wages went up by 19 per cent. Buying power to get a dwelling by earned income was largest year 1995.

The house prices began to go up in year 1996. During last year of 1990 the house prices went up nearly 50 per cent. Year 2001 the house prices temporarily went down by nearly one per cent. After that the house prices have risen to mid-2008. From 1996 to 2008 the house prices went up by 120 per cent. At the same time wages went up by 53 per cent and consumer prices 24 per cent.

During this decade buying power to get a dwelling by earned income has declined rapidly. "The price bubble" in house market was created 2006, when, house price curve has risen above wage curve (1983=100). House prices went down after mid-2008 which overhauled house market. After 1st quarter of 2009 house prices have risen rapidly, which have weakened bying power to get a dwelling by earned income.

#### Changes in House prices, Wages and Consumer prices, index 1983=100



## 4. House price development elsewhere

In Sweden real estate prices (cover real estates, terraced and linked houses) went up by 9.0 per cent during first quarter of 2010 compared to previous year. Prices went up by 1.0 per cent compared to last quarter 2009. In area of Greater-Stockholm prices went up by 15.0 per cent from previous year and from previous quarter by 3.0 per cent. On an average apartment cost 2.03 Mkrone (EUR 211,560) and in area of Greater Stockholm 3.63 Mkrone (EUR 378,932). From year 2005 house prices have risen by circa 32 per cent and in the area of Greater-Stockholm circa 4 percentage unit more than in whole Sweden. Used source is Statistics Sweden.

According to Statistics Norway in first quarter of 2010 house prices went up 10.8 per cent from previous year. Prices of blocks of flats went up on average by 11.0 per cent, terraced houses by 11.8 per cent and detached houses by 10.4 per cent from first quarter of 2009. From last quarter of 2009 prices went up by 3.9 per cent. Average price per square metre in Oslo NOK 28,407 NOK (EUR 3,598) in terraced houses and NOK 34,969 (EUR 4,429) in blocks of flats. From 2005 house prices have risen in Norway by 37 per cent.

In Germany prices of old houses went up by 0.9 per cent in the first quarter of 2010 from previous year. From last quarter of 2009 prices went up on average by 0.1 per cent. From 2005 prices have declined on average by 2.1 per cent. In the first quarter of 2010 average price per square metre in old apartment EUR 1,609 and EUR 1,832 in new apartment. Prices of new apartments fell by 0.1 per cent from previous year, but have risen by 1.3 per cent from previous quarter. Used source is Hypoport AG.

In Britain house prices went up by 0.3 per cent and in London by 1.5 per cent in the last quarter of 2009 from previous year. From third quarter of 2009 prices in Britain went up by 1.2 per cent and in London by 2.2 per cent. Average price of apartment in Britain was £ 160,961 (EUR 189,246) and in London £ 322,061 (EUR 370,611). House prices have risen by 10.6 per cent in Britain and by 19.2 per cent in London from 2005. Used source is Office of National Statistics and Land Registry.

In France prices of apartments in old blocks of flats and in terraced houses went up by 1.0 per cent during the first quarter of 2010 from previous year. From the last quarter of 2009 prices went down by 2.7 per cent. Average price per square metre of apartment in old blocks of flats and in terraced houses is EUR 2,880 in France and EUR 6,061 in Paris. Prices went up on average by 2.7 per cent from year 2005. Used source is the newest publication of Fédération Nationale de l'Immobilier (FNAIM).

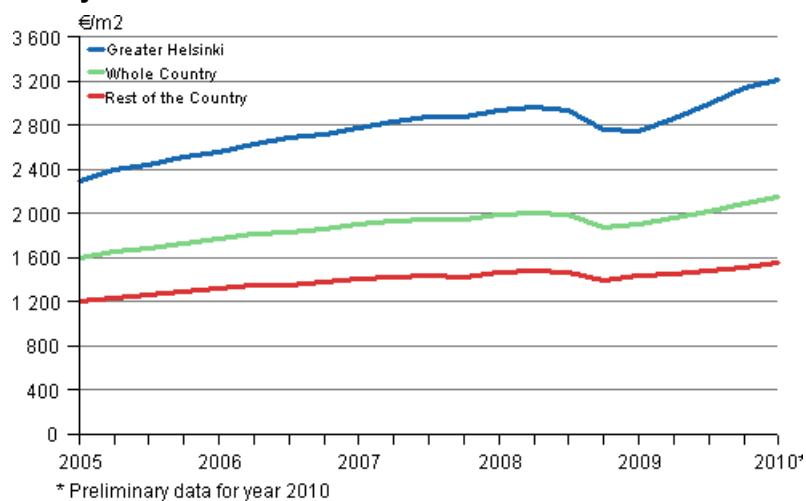
In Spain prices of old apartment went down by 3.5 per cent in the last quarter of 2009 from previous year. From third quarter of 2009 prices went up by 0.1 per cent. Prices of new apartments went down by 5.1 per cent from previous year and by 0.9 per cent from previous quarter. From 2007 prices of old apartments have fell by 9.5 per cent and prices of new apartment remained almost unchanged. Used source is Statistics Spain.

According to Federal Housing Finance Agency house prices went down by 1.2 per cent in the last quarter of 2009 in U.S. from previous year. From July-September 2009 prices went down by 0.1 per cent. From previous year prices went down in 31 states, most in Nevada by 17.3 per cent. Prices went up quickest in Oklahoma by 3.5 per cent. From biggest cities prices went down most in Miami by 12.9 per cent. In Washington, D.C. prices went up by 10.6 per cent from previous year. From 2005 prices have fallen by 3.8 per cent in national level.

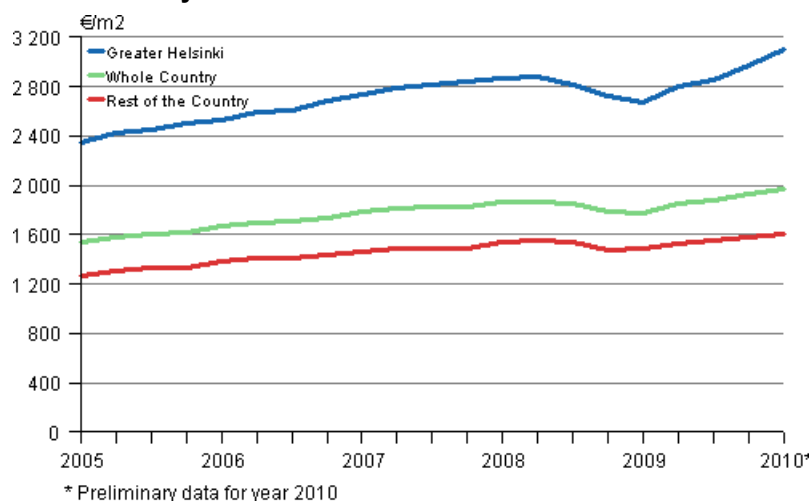
Compilation of House Statistics is object of developing in several member country of European Union. Information above are gathered in several sources, that's why those aren't necessarily comparables between countries or to house price data of Finland.

# Figures

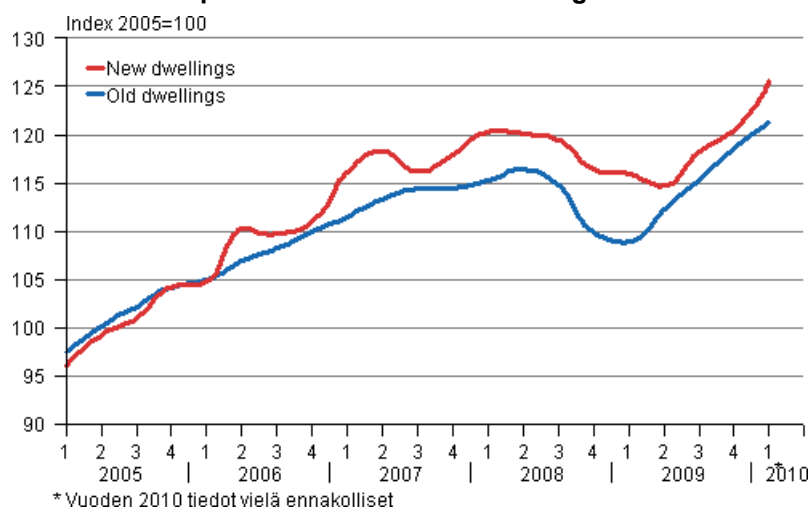
## 1. Average prices per square metre of dwellings in old blocks of flats from year 2005



## 2. Average prices per square metre of dwellings in old terraced houses from year 2005



## 3. Price development of old and new dwellings from 2005





# Quality Description

## 1. Relevance

### 1.1 Information content and purpose of use

Quarterly statistics on housing prices describe the unencumbered prices per square metre of old and new dwellings in housing companies, and year-on-year and quarterly changes in them. The statistics contain data classified by area - old dwellings also by sub-area - type of building and number of rooms from the examined quarter and from a longer period of time. The purpose of the statistics is to provide information about developments on the housing market to all interested parties.

### 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 National Board of Taxes for asset transfer tax calculation purposes. The real estate register of the National Board of Taxes and Statistics Finland's data file on the dwelling stock, which is derived from the Population Register Centre's register of buildings and dwellings, are also exploited as data sources for these statistics.

*New dwellings:* The data of the statistics on dwelling prices are based on 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

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 debt portion. The published price concept is price per square metre (€/m<sup>2</sup>).

*Floor area of dwelling:* The floor area (m<sup>2</sup>) 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 home transactions refer to the transactions entitled to first-time homebuyer's exemption from the asset transfer tax ([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. The data on terraced houses also cover detached houses whose tenure is based on ownership of housing company shares.

*Type of financing:* Dwellings financed with ARAVA 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 3+.

*(Nominal) price index:* Describes price change compared to the base year (old dwellings 2005, 2000, 1983 or 1970 and new dwellings 2005) of the index concerned.

*Real price index:* Describes real price change compared to the base year (old dwellings 2005, 2000, 1983 or 1970 and new dwellings 2005) of the index concerned. Real price index is calculated by dividing the point figure of the nominal price index by the point figure of the consumer price index of the corresponding point in time and base year.

*Distribution parameters:*

Q1 (lower quartile) = 25% of the prices per square metre are lower than or equal to the lower quartile.

Med (median) = Middle price of prices per square metre arranged in size order.

Q3 (upper quartile) = 75% of the prices per square metre are lower than or equal to the upper quartile.

Classifications:

*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 of 26 February 1998. 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 statistics on the prices of new dwellings are compiled according to less detailed regional division than 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 (1) Whole country, (2) Greater Helsinki Region (same as with old dwellings), (3) Rest of Finland (Whole country exclusive of Greater Helsinki Region), (4) Rest of Uusimaa (exclusive of Greater Helsinki Region), and Itä-Uusimaa and major regions: (5) Southern Finland, (6) Western Finland, (7) Eastern Finland and (8) Northern Finland.

## 2. Methodological description

The calculation method of the indices for old dwelling prices 2000=100 and new dwelling prices 2005=100 combines the classical classification approach and regression analysis (so-called hedonic method). The index aims at answering the question how much more/less a typical dwelling in a housing company costs now compared to before. Monitoring average price changes will not necessarily provide an adequate answer, since average prices change also because the composition of dwellings sold at different times varies. For example, the relative shares of different types of dwellings vary from quarter to quarter. The method aims at distinguishing better than before the true price developments from price effects arising from compositional changes.

Because location, type of building and number of rooms are the most important price determinants, the composition of sold dwellings is first standardised for these variables by classification. The regional classification has been constructed so as to be geographically meaningful and as homogeneous as possible in respect of price levels. In the statistics on old dwelling prices the largest municipalities are divided into several sub-areas, and the smallest municipalities where few transactions take place have been combined. In the statistics on new dwelling prices the regional classification has been formed according to six sensible geographical entities because due to the low number of observations in the data a more detailed classification cannot be used. In respect of both old and new dwellings, the dwellings within an area have been stratified by type of building into dwellings in blocks of flats, and dwellings in terraced and detached houses. Dwellings in blocks of flats have been classified further by number of rooms into dwellings with one room, dwellings with two rooms and dwellings with three or more rooms. Old dwellings in terraced houses have been divided by number of rooms into two categories — dwellings with fewer than, and dwellings with at least three rooms. New dwellings in terraced houses form one category.

The used classification does not necessarily homogenise the data sufficiently. Factors affecting price, such as micro-location, floor area, year of completion, and so on, are not controlled for by the classification.

The available data contains information on these characteristics, which can be used for adjusting the average price of a given category in the comparison period so that the obtained average price adjusted for quality takes into account compositional changes within the category in the base and comparison periods. The following regression equation model are specified:

### Regression model for average square metre

$$(1) \ln(p_{ij}) = \beta_0 + \sum_{i=1}^{L_1} \beta_i A_{ij1} + \gamma_1 (\text{pinta\_al } a_{ij}) + \gamma_2 \sqrt{(\text{pinta\_al } a_{ij})} + \delta_1 (2005\text{-valm.wuosi})_{ij} + \delta_2 \sqrt{(2005\text{-valm.wuosi})_{ij}} + \sum_{k=1}^3 \omega_k \text{huone}_{ijk} + \eta_1 RT_{ij} + \eta_2 (RT)_{ij} * (\text{huone}3)_{ij} + \varepsilon_{ij}$$

### The notation of model is standard

$\ln(p_{ij})$

is the logarithmic price per square metre of dwelling floor area of dwelling i in location j

$A_j$

is the micro area indicator (postal code areas in large urban centres and municipality indicators in combination areas). In model 1 the variable 'huone' indicates the number of rooms, RT indicates terraced house dwelling and (RT)\*(huone3) is the interaction term for a terraced house dwelling with at least three rooms..

The models are estimated using ordinary least squares (OLS) for each location separately. The models were not estimated for each class, because this would have lead to degrees-of-freedom problems. The functional form is standard semi-log and the square roots of dwelling floor area and, in respect of old dwellings, of construction year are included as explanatory variables to capture non-linear price effects. The 'huone' indicators are naturally strongly correlated with dwelling-floor area, but they are included for technical reasons, namely in this way it is guaranteed that the sum of residuals in the base period (year 2005) are zero in all index classes.

Let denote estimates of the model parameters,

$b_0, b_1, \dots, b_{L_1}, g_1, g_2, d_1, d_2, n_1, n_2, n_3, h_1, h_2$

in the index class of i by vector

### Estimator vector of model in class i

$\bar{x}_1^i$

and the sample characteristics (construction year, size, postal code area indicator) of the dwellings in the base and comparison periods respectively.

### Average price vector for base period

$\bar{x}_0^i$

### Average price vector for comparison period

$\bar{x}_1^i$

Then within each class the quality adjustment due to differences in construction year, dwelling floor area and location according to postal code area can be written as:

### Quality adjustment in index class i

$$b_0^i(\bar{x}_0^i - \bar{x}_1^i)$$

The quality adjustment works in the following way: If, for example, the average construction year of old dwellings is older in the comparison period than in the base period, the index must be corrected upwards, because otherwise lower prices due to earlier construction year would be wrongly interpreted as price fall. The size of the adjustment depends on the difference in the average construction year of the dwellings and on the estimated construction year coefficients in the regression.

The overall index point-number for the whole country is obtained via aggregated price changes in every index class and price adjustments so called log-Laspeyres formula

### Log-Laspeyres Index Formula

$$(2) \quad \log La_0^1 = \exp\left(\sum_{i=1}^N w_0^i \ln\left(\frac{\bar{P}_1^i}{\bar{P}_0^i}\right)\right) \exp\left(\sum_{j=1}^N w_0^j b_0^j (\bar{x}_0^j - \bar{x}_1^j)\right)$$

In model (2) is N number of index classes,

### Geometric price ratio in class i

$$\frac{\bar{P}_1^i}{\bar{P}_0^i}$$

and

### The weight in class i

$$w_0^i$$

Geometric prices are calculated for observations' prices per square metre via the following formula:

### Geometric average prices

$$(3) \quad \bar{P}_j^i = \sqrt[N_{it}]{\prod_{k=1}^{N_{it}} P_{jk}^i}$$

The weights for old dwellings are derived as value-shares of the stock of apartments in 2005.

### Calculation of weights

$$(4) \quad w_0^i = \frac{(\bar{a}a_0^i * n_0^i) * \bar{P}_0^i}{\sum_{i=1}^N (\bar{a}a_0^i * n_0^i) * \bar{P}_0^i}$$

,where

### **Average dwelling-floor area of the dwellings in class $i$ in year 2005**

$\overline{a}_{a0}^i$

and

### **Number of dwellings in the class concerned**

$n_0^i$

and

### **Average price of class concerned in year 2005**

$\overline{p}_0^i$

## **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 asset transfer tax data of the National Board of Taxes, 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 in the statistics, because the purchaser is allowed two months to pay the asset transfer tax. Many purchasers pay the tax more quickly than this and in transactions intermediated by real estate agents the tax is paid at the time of transaction.

When the statistics are published they cover approximately two-thirds of all transactions made in the latest statistical reference quarter. Statistics Finland receives the data on the remainder as they arrive at the National Board of Taxes. The quarterly data are updated retrospectively so that the final data for a given year are published with the data for the first quarter of the year following it.

The statistics describe the housing company share market by area 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.

The statistics on the prices of new dwellings are based on data obtained from the largest real estate agents and building contractors and is a final when first published.

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

Cases with missing information about transaction price 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 in statistics 2008 and 2009 are: €/m<sup>2</sup> 1,200–9,000 for the Greater Helsinki Area, €/m<sup>2</sup> 800–6,500 for Tampere, Turku, Jyväskylä, Kuopio, Oulu, Vaasa and the satellite municipalities surrounding the Greater Helsinki Area, and €/m<sup>2</sup> 500–5,000 for other areas.

Confidence interval of 95% has been calculated with the bootstrap method for the housing price index of old dwellings. For the whole country, the confidence interval is  $\pm 0.7\%$ , for the Greater Helsinki Area  $\pm 1.4\%$  and for the rest of the country  $\pm 0.8\%$ .

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

Because the index takes into account changes in the distribution of year of completion (for old dwellings only), 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. This has been done because 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**

Quarterly statistics on housing prices are compiled per quarter and published one month from the end of the examined quarter

### **4.2. Preliminarity of the statistics**

When the statistics are published they cover approximately two-thirds of all transactions in the latest statistical reference quarter. Statistics Finland receives the data on the remainder as they arrive at the National Board of Taxes.

The quarterly data are updated retrospectively so that the final data for year t are published with the data for the first quarter of the year following it.

## **5. Accessibility and transparency of the data**

A latest data release will be published from the statistics on Statistics Finland's website on the publication date of the quarterly statistics on dwelling prices. The entire publication can be ordered as a printed paper version or an electronic pdf version. Data concerning dwelling prices can also be found from Statistics Finland's web pages and database service.

The essential metadata have been described in this document, which is incorporated into the quarterly publication of statistics on dwelling prices. This document is also available on Statistics Finland's web pages.

This statistics covers only dwelling transactions in housing company shares. Especially in the Greater Helsinki Area, there are numerous real estate transactions that are not included in these statistics. Data on real estate transaction prices by municipality are available from the National Board of Survey (Tel.: +358 40 801 1204).

## **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 comprehensive files of the National Board of Taxes, and thus cover exhaustively all completed transactions.

### **6.2. Comparability over time**

Statistics compiled from the asset transfer tax data of the National Board of Taxes and classified according to these current quarterly statistics are available on the prices of old dwellings starting from the year 1987. Older data are available going back to 1970. The statistics for the 1970 to 1986 period are based on data provided by real estate agents and the used classification is much less detailed than the one used since 1987. For the prices on new dwellings time series have been calculated since 2002.

## **7. Coherence and consistency**

Statistics Finland published prices statistics of corporation flats and price statistics of real estate prices quarterly. Besides the data published by Statistics Finland, real estate agents, credit institutions and banks

also publish information concerning dwelling prices and their development. More on differences between the published data under section 6.1 above.

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