

**Documentation of statistics for  
Market Value for Households Real Estate 2015**

## **1 Introduction**

This is the first publication of the households' assets in real estate on individual level. The purpose is to follow the development of the households' real estate. Sector delimitation of units in the sector of households is defined in European system of national accounts (ESA2010). From this it appears that sole proprietorships are a part of the households' sector. Registers on individual level can be used for distribution analyses, e.g. in relation to income, financial liabilities or socioeconomic status.

## **2 Statistical presentation**

Statistics Denmark has established an individual-based register with market values of the households' real estate. The household's real estate consisting of owner occupied dwellings and co-operative dwellings. The calculation of the market value of real estate is based on actual sales on the market. All figures are reported in current prices. The valuation of households' assets in real estate covers the period since 2004.

### **2.1 Data description**

Statistics Denmark has established an individual-based register with market values of the households' real estate. The real estate consisting of owner occupied dwellings and co-operative dwellings. The calculation of the market value of real estate is based on actual sales on the market. All figures are reported in current prices. The valuation of households' assets in real estate covers the period since 2004. Figures concerning 2014 are preliminary. Registers on individual level can be used for distribution analyses, e.g. in relation to income, financial liabilities or socioeconomic status.

### **2.2 Classification system**

The definition of the household sector follows European system of national accounts (ESA2010). It shows that individuals and sole proprietorships are the population in the household sector. The value of co-operative dwellings is also included as a part of the assets in real estate in the statistics, even though co-operative dwellings are not considered as a real asset. Equity certificates are categorized as financial assets in ESA 2010.

### **2.3 Sector coverage**

Real estate includes occupied dwellings and co-operative dwellings. Property owners in the household sector can be both individuals and sole proprietorships. For owners of co-operative dwellings the statistics do not include sole proprietorships.

## 2.4 Statistical concepts and definitions

**Financial wealth and loans:** Individual data for financial wealth and loans are collected from the tax authorities. Not all financial wealth and loans are available at this level, for example, are financial wealth calculated exclusive pensions and unlisted shares. Totals for the household sector's financial wealth and loans can be found in Statistics Denmark's National Financial Accounts.

**Market value for owner occupied dwellings :** The official real estate valuations from the Danish tax authorities (Skat) do not reflect the market prices. The difference between the official real estate valuations and the market price depends on the market conditions, which are not described to a sufficient degree in Skats' official real estate valuations. By linking the actual real estate sales with the official real estate valuations, it is possible to calculate the average relationship between the actual price and the real estate valuation for the sold dwellings. This relationship is called the "Adjustment factor". In the model it is assumed that the adjustment factor between the actual purchase price (the market value) and the official real estate valuation is the same for individual types of real estate (e.g. one-family houses) within the same geographical area (e.g. a postal code). The market values of the dwellings that have not been sold are calculated by multiplying the adjustment factor with the official real estate valuation.

**Market value for co-operative dwellings:** Housing co-operative is a legal entity - usually a cooperation - that owns real estate, consisting of one or more residential buildings. The co-operative is membership based, with membership granted by way of a share purchase in the co-operative. Each shareholder in the legal entity is granted the right to occupy one housing unit (co-operatives dwellings). The model calculates the price represented by the individual co-operative dwelling, if the entire building was sold on market terms.

**Type of municipalities:** In the StatBank there is a classification of the municipalities in urban municipalities, intermediate municipalities, rural municipalities and outlying municipalities. The classification is used to illustrate the development of household real estate and debt of municipalities with different characteristics.

## 2.5 Statistical unit

The household wealth in real estate is published on property level and family level. Additional information is available by contacting Statistics Denmark.

## 2.6 Statistical population

Sector delimitation relative to households and non-households carried out by the national accounts definitions in the European system of national accounts (ESA2010). This indicates that sole proprietorships are part of the household sector, ie property owners in the household sector can be both individuals and sole proprietorships. The values of co-operative dwellings are also included as a part of assets in real estate, even though co-operative dwellings are not considered as a real asset. Equity Certificates are categorized as financial assets in ESA 2010.

## 2.7 Reference area

Denmark

## **2.8 Time coverage**

Data is available from 2004 and onward.

## **2.9 Base period**

Not relevant for this statistics.

## **2.10 Unit of measure**

The market value in the statistics are in 1,000,000 DKK and shown in current prices.

## **2.11 Reference period**

The statistic estimate the market value at the end of the years 2004-2015

## **2.12 Frequency of dissemination**

Annually

## **2.13 Legal acts and other agreements**

No EU regulation in this area. A wide range of register data collected via the tax authorities etc. based on the general Law for Statistics Denmark.

## **2.14 Cost and burden**

There is no response burden as the data are collected via registers.

## **2.15 Comment**

Additional information is available by contacting Statistics Denmark.

## **3 Statistical processing**

Data from the various registers are merged through property identification and personal identification. There are made classifications, aggregations and calculation of the market value. For publication there is added relevant background information about the families.

### **3.1 Source data**

The calculation of the market value of real estate is based on information contained in the Register with Official Real Estate Valuations. The Register with Official Real Estate Valuations and the Building and Real Estate Register and the Business Register are used to define data and to the calculation of the market value. Personal Data (PSD) is used to group owners in families.

### **3.2 Frequency of data collection**

Annually

### **3.3 Data collection**

Data from registers

### **3.4 Data validation**

Non-matched records are controlled in the merged registers. There are made tabulations at different levels of data to check the level of calculated market value on macro level. There are no similar estimates for the market value of real estate, so the results at the macro level cannot be compared with other sources. The project has emphasized the quality-control of data during the linkage of information from the four registers.

### **3.5 Data compilation**

*Owner occupied dwellings* Information about the official real estate valuations and the actual selling prices for the sold property makes it possible to calculate an average adjustment factor within a geographical area. The market value of the property that has not been sold is calculated by multiplying the adjustment factor with the official real estate valuations. In the model the adjustment factor is assumed to be identical for properties of the same type that are located within the same geographic area. The smallest geographic area in the model is the postal code. The model assumes the adjustment factor to depend on property type, geographic location and the property's price level.

*Co-operatives dwellings* The shareholders are not registered in any central register. The individual based statistics is based on those residents who are located in the buildings owned by the housing co-operatives. The relation between the square meters of the individual residence and the total square meters of the building are the key in distributing the official real estate valuations on the individual residences. The number of residents at each address can be determined from the address information. The residence's share of the official real estate valuation is divided equally between residents that are not children living at home. The market value of co-operative dwellings is not necessarily the same as the official real estate valuation from SKAT. Actual real estate sales are used to correct the official real estate valuations so that the market value can be estimated.

### **3.6 Adjustment**

Not relevant for this statistics.

## **4 Relevance**

The statistic has a lot of interested parties including ministries, politicians, organizations and the press..

#### **4.1 User Needs**

Ministries, political parties, non-governmental organizations, local government, public and private enterprises, and members of the general public.

#### **4.2 User Satisfaction**

This is a new statistic, and there is no knowledge about user satisfaction.

#### **4.3 Data completeness rate**

Real estate includes occupied dwellings and co-operative dwellings. For owners of co-operative dwellings the statistics do not include sole proprietorships.

### **5 Accuracy and reliability**

The adjustment factor is the same within a geographic area, even though the actual sales value can vary a lot due to e.g. differences in the location of the owner-occupied dwellings (amenity), which are not reflected completely in the official real estate valuations.

#### **5.1 Overall accuracy**

To calculate the market value of real estate, the statistics used a correction factor, which adjusts the level of the value, so it corresponds to the market value. Use of correction factors are an average which does not take into account the individual differences between the properties.

#### **5.2 Sampling error**

Not relevant for this statistics.

#### **5.3 Non-sampling error**

The market value may depend on factors other than the property's location and price level. Examples of other factors which affect the market value include distance to the coast (especially holiday cottages), distance to shops and public transport, the age and condition of the property

#### **5.4 Quality management**

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

## **5.5 Quality assurance**

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

## **5.6 Quality assessment**

The calculation of the market value of real estate is based on information contained in the Register with Official Real Estate Valuations, the Building and Real Estate Register, the Business Register and Register for Personal Data (PSD). The quality of data is high because the registers are validated and updated continuously.

## **5.7 Data revision - policy**

Statistics Denmark revises published figures in accordance with the [Revision Policy for Statistics Denmark](#). The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

## **5.8 Data revision practice**

Not relevant at this time

## **6 Timeliness and punctuality**

The statistics are published for the first time in June 2015 with figures from 2004 to 2015. It is expected to publish final figures for 2014 in January 2016. Afterwards it is expected to publish final figures for household wealth in real estate each year in January.

### **6.1 Timeliness and time lag - final results**

The statistics are published for the first time in June 2015 with figures from 2004 to 2015. It is expected to publish final figures for 2014 in January 2016. Afterwards it is expected to publish final figures for household wealth in real estate each year in January.

### **6.2 Punctuality**

Not known at this time.

## **7 Comparability**

The statistic is consistent over time. However, one must be aware that the figures are calculated at current prices. There is no knowledge of any individual based register of household wealth in real estate, which is comparable to the Danish. Figures for total household wealth in real estate are also published in the statistics concerning financial national accounts which is published in June and November.

### **7.1 Comparability - geographical**

There is no knowledge of any individual based register of household wealth in real estate, which is comparable to the Danish.

### **7.2 Comparability over time**

The statistic is consistent over time. However, one must be aware that the figures are calculated at current prices.

### **7.3 Coherence - cross domain**

Figures for total household wealth in real estate are also published in the statistics concerning financial national accounts which is published in June and November.

### **7.4 Coherence - internal**

Not relevant at this time.

## **8 Accessibility and clarity**

First publication in June 2015. The figures can be found in StatBank <http://www.Statbank.dk>.  
Table: EJDFOE1, EJERFOF1, EJERFOF2, EJERFOF3, EJERFOF4.

### **8.1 Release calendar**

The publication date appears in the release calendar. The date is confirmed in the weeks before.

### **8.2 Release calendar access**

The Release Calendar can be accessed on our English website: [Release Calendar](#).

### **8.3 User access**

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

### **8.4 News release**

Publication: News from Statistics Denmark

### **8.5 Publications**

Not relevant at this time.



### **8.6 On-line database**

www.Statbank.dk. Table: EJDFOE1, EJERFOF1, EJERFOF2, EJERFOF3, EJERFOF4.

### **8.7 Micro-data access**

Access to anonymized individual-based data is possible by contacting Statistics Denmark.

### **8.8 Other**

No

### **8.9 Confidentiality - policy**

Confidentiality policy in Danish only.

### **8.10 Confidentiality - data treatment**

Christiansø and Bornholm are merged.

### **8.11 Documentation on methodology**

No

### **8.12 Quality documentation**

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

## **9 Contact**

The administrative placement of this statistics is in the division of General government statistics. The persons responsible are: Kristina Stæhr Vest, tel. +45 3917 3462, e-mail: ksv@dst.dk

### **9.1 Contact organisation**

Statistics Denmark

### **9.2 Contact organisation unit**

Government finance statistics, Economic department

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