

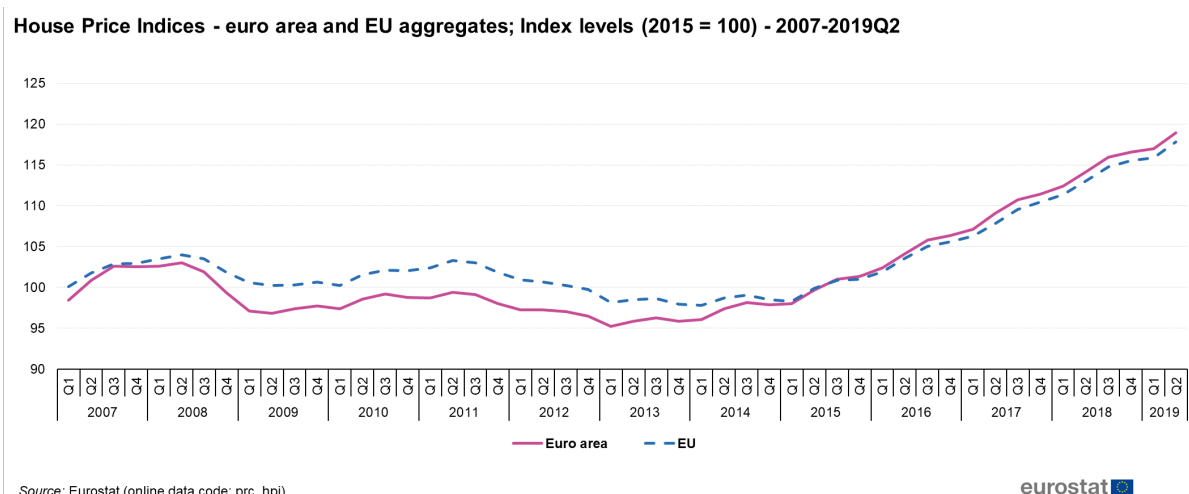
# EUROSTAT (07.10.19)

## Housing price statistics - house price index

Data from second quarter of 2019 – extracted on 7 October 2019.  
Next planned update: 16 January 2020.

### Highlights

**House prices rose by 4.2 % in both the euro area and the EU in the second quarter of 2019 compared with the same quarter of the previous year.**



House price indices - euro area and EU aggregates; index levels (2015 = 100), 2007-2019Q2 - Source: Eurostat ([prc\\_hpi\\_inx](#))

This article describes the [house price index \(HPI\)](#) in the [euro area](#) and the [European Union \(EU\)](#), presenting data on this indicator both at European and Member State level. It also provides examples of possible use of this indicator in relation to other statistics, such as [consumer price indices](#) and rent price indices. Finally, a summary description of the methodology used in the compilation of the HPI is given.

## Annual and quarterly growth rates

The HPI shows the price changes of residential properties purchased by [households](#) (flats, detached houses, terraced houses, etc.), both newly-built and existing ones, independently of their final use and independently of their previous owners. The Member States' HPIs are compiled by the national statistical institutes, while [Eurostat](#) calculates the euro area and EU HPIs.

The index levels (2015 = 100) for the euro area aggregate and EU aggregate house price indices are shown in Figure 1.

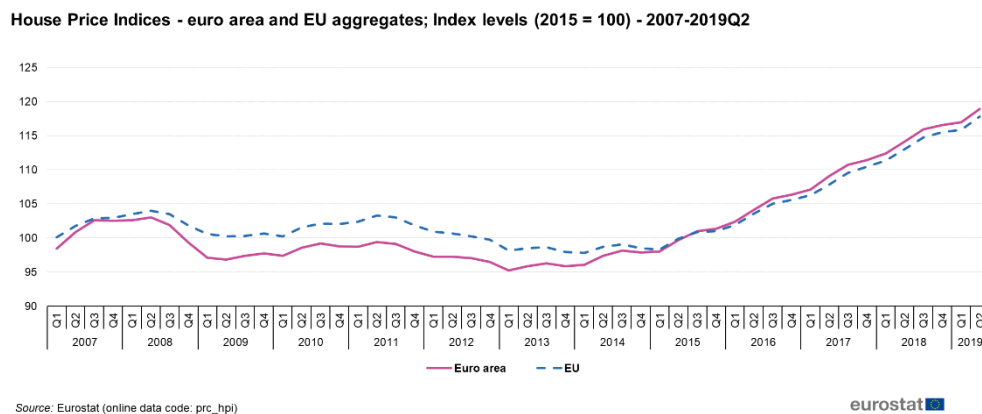


Figure 1: House price indices - euro area and EU aggregates; index levels (2015 = 100), 2007-2019Q2-

Source: Eurostat ([prc\\_hpi](#))

The annual growth rate of the euro area and EU HPIs is presented in Figure 2. Looking at the entire period, the annual growth rate of the EU HPI reached a maximum of 9.9% in the first quarter of 2007 and a minimum in the second quarter of 2009, with -6.0%.

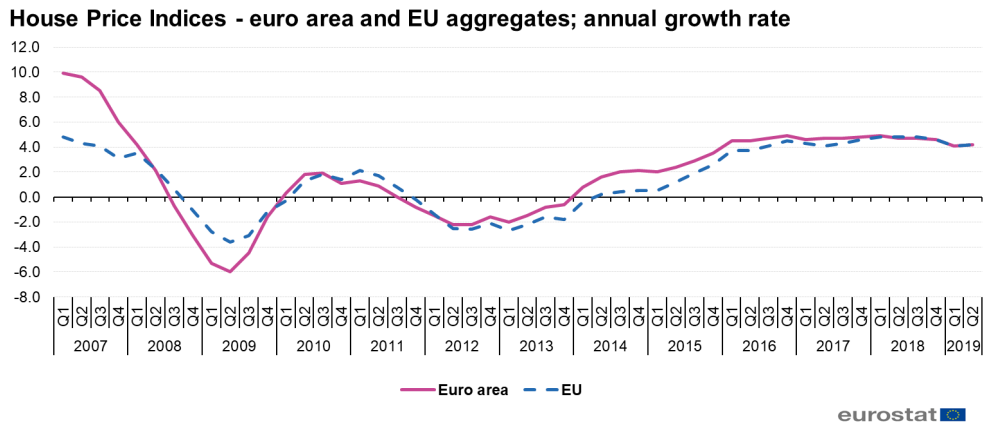


Figure 2: House price indices - euro area and EU aggregates; annual growth rate, 2007-2019Q2 -

Source: Eurostat ([prc\\_hpi\\_q](#))

Table 1 presents the quarterly and annual rates of change for the HPI for the most recent four quarters.

HPIs are computed as [Laspeyres](#)-type annual [chain indices](#) allowing weights to be changed each year.

The HPIs for the Euro area and EU aggregates are calculated as [weighted averages](#) of the national HPIs, currently using as weights the [GDP](#) at market prices (based on [PPS](#)) of the countries concerned.

The weights used in 2019 are based on data for 2018. These weights are illustrated in Figure 3 for the euro area.

**House Price Index - Quarterly and annual rates of change - 2018Q3-2019Q2**

	Change compared with the previous quarter, %				Change compared with the same quarter of the previous year, %			
	2018		2019		2018		2019	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Euro area <sup>p</sup>	1.6	0.6	0.3	1.7	4.8	4.6	4.1	4.2
EUP	1.6	0.6	0.4	1.6	4.7	4.6	4.1	4.2
Belgium	2.0	-0.5	1.1	0.5	2.5	2.5	3.6	3.1
Bulgaria	0.8	0.9	2.6	0.6	6.3	5.5	7.3	5.0
Czechia	2.5	1.9	1.9	2.1	8.8	9.9	9.6	8.7
Denmark	0.4	-2.2	2.2	2.6	3.7	3.3	1.8	2.9
Germany	2.1	1.2	-0.2	2.0	7.0	6.2	5.2	5.2
Estonia	0.2	2.8	1.7	0.9	4.1	5.7	5.9	5.8
Ireland	2.2	0.8	-1.0	0.5	9.1	7.2	4.4	2.5
Greece	:	:	:	:	:	:	:	:
Spain	2.2	0.4	1.6	1.1	7.2	6.7	6.9	5.4
France	2.3	-0.2	0.0	1.1	2.9	3.2	2.9	3.2
Croatia	2.8	1.1	3.5	2.6	6.8	4.7	7.4	10.4
Italy	-0.8	-0.1	-0.6	1.3	-0.8	-0.5	-0.9	-0.2
Cyprus	-0.7	3.5	0.8	4.2	0.8	1.6	4.3	8.0
Latvia	-1.2	3.6	0.8	5.6	7.2	11.1	6.4	9.0
Lithuania	1.1	1.0	2.9	1.5	6.6	7.4	7.9	6.6
Luxembourg	2.4	2.6	0.9	5.1	7.6	9.2	7.0	11.4
Hungary	4.2	2.6	5.0	1.6	14.9	15.4	15.3	14.0
Malta	3.3	3.8	-4.2	3.4	5.5	6.2	6.6	6.2
Netherlands	3.2	1.4	1.9	1.6	10.1	9.1	8.1	8.3
Austria	1.6	1.5	0.2	3.3	4.9	4.9	4.2	6.7
Poland	1.3	2.4	1.9	2.3	6.5	7.6	8.1	8.2
Portugal	1.0	2.0	3.6	3.2	8.5	9.3	9.2	10.1
Romania	-0.7	0.8	0.1	1.6	5.7	5.3	3.3	1.8
Slovenia	0.4	3.1	0.8	1.3	9.9	9.1	8.4	5.8
Slovakia	-0.3	2.8	1.9	3.7	4.4	6.8	5.7	8.3
Finland	-0.5	0.3	-0.6	1.7	1.0	1.7	1.0	0.8
Sweden	1.0	-0.2	0.0	1.4	-2.1	0.7	1.5	2.2
United Kingdom	2.0	-0.5	-1.1	1.0	2.8	2.4	1.5	1.4
Iceland	2.1	1.2	0.7	0.7	5.8	6.1	5.3	4.7
Norway	0.2	-0.1	2.0	2.6	3.5	3.5	4.4	4.8

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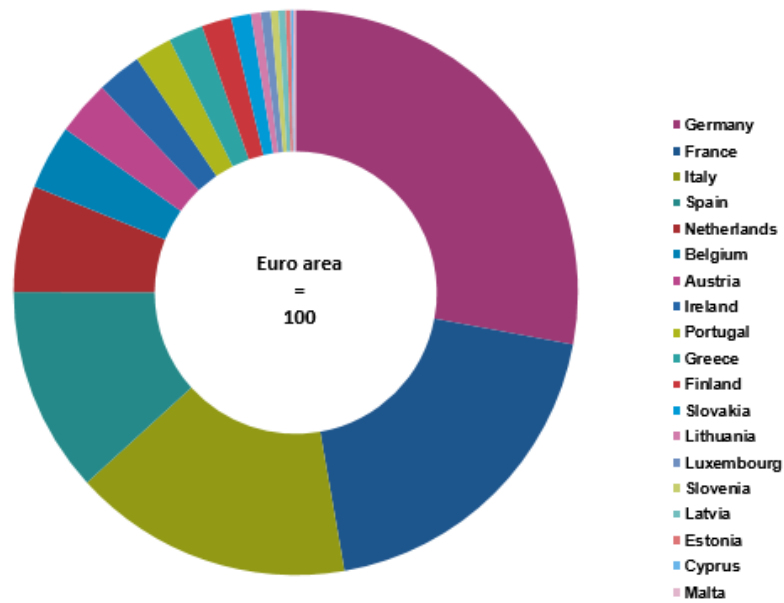
Source: Eurostat (online data code: prc\_hpi\_q)



Table 1: House price index - quarterly and annual growth rates, 2018-Q2-2019Q2 - Source:

Eurostat ([prc\\_hpi\\_q](#))

### Weights of Member States in the euro area HPI aggregate, 2018



Source: Eurostat (online data code: nama\_10\_gdp)



Figure 3: Weights of Member States in the euro area HPI aggregate, 2018 - Source:

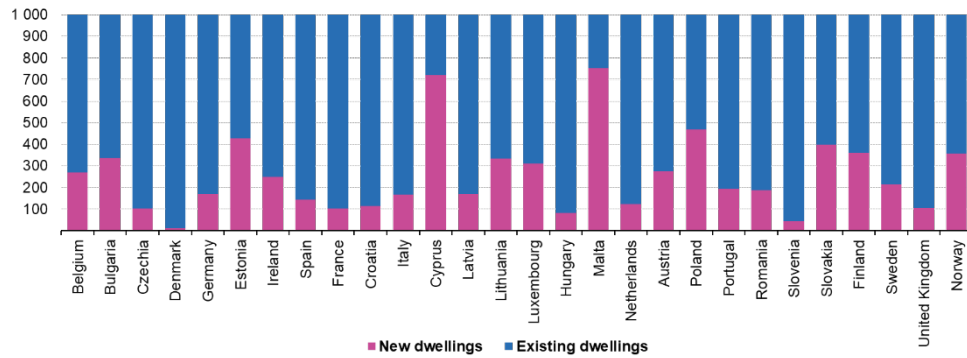
Eurostat ([nama\\_10\\_gdp](#))

## Sub-indices for new and existing dwellings

Since December 2014, in addition to the price index for total dwellings transacted in the market, Eurostat publishes separate indices for newly built and existing dwellings ([prc\\_hpi\\_a](#)). The separation of dwellings into newly built and existing is relevant due to their often different price evolutions. Due to limited data availability, no European aggregates are compiled for these sub-categories.

The weights of the indices for new and existing dwellings are disseminated as parts per thousand of the expenditure (with total dwellings = new dwellings + existing dwellings = 1 000) ([prc\\_hpi\\_q](#)). The weights for the 2019 indices are illustrated in Figure 4 for available countries.

**Weights of new and existing dwellings in total dwellings, for 2019 indices**



Source: Eurostat (online data code: prc\_hpi\_inw)



Figure 4: Weights of new and existing dwellings in total dwellings, for 2019 indices (total dwellings = 1 000) - Source: Eurostat ([prc\\_hpi\\_inw](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1))

## Dynamics in the housing market: uses of the house price index and policy implications

The HPIs has been used in conjunction with other macroeconomic statistics to build derived indicators for the analysis of the housing market dynamics.

A well-known example is the deflated (or real) house price index, which is part of the Scoreboard of indicators used in the Macroeconomic Imbalances Procedure (MIP) of the [European Commission](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1).

See the [dedicated section on Eurostat website](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1) and [ECFIN web page](https://www.ecfin.eu/en/press-releases/2018/04/2018-04-11).

The [deflated](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1) HPI is the ratio between the nominal HPI and an index of consumer price [inflation](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1). A consumer price index, such as the [HICP](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1), or a [national accounts](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1) final consumption [deflator](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1) can be used for stripping out consumer prices inflation from the HPI. The deflated HPI included in the MIP Scoreboard uses the national accounts final consumption deflator. The deflated HPI growth rate is a key variable for the analysis of house price cycles. In particular, a too high growth rate is considered an early warning indicator of tensions in the real estate market signalling the risk of price bubbles. The alarm threshold adopted in the context of the MIP is 6 % of annual growth rate in the deflated HPI. The level of the threshold was established by the [European Commission](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1). It was set on the basis of an analysis of historical data on past boom and bust cycles of house prices.

The deflated HPI for the euro area is presented in Figures 5 (quarterly index) and 6 (annual rate of change). There are significant differences between Member States, as it can be seen in Table 2 -

annual deflated HPI. Figure 7 illustrates well the magnitude of the differences among available countries in the annual rate of change, for the year 2018.

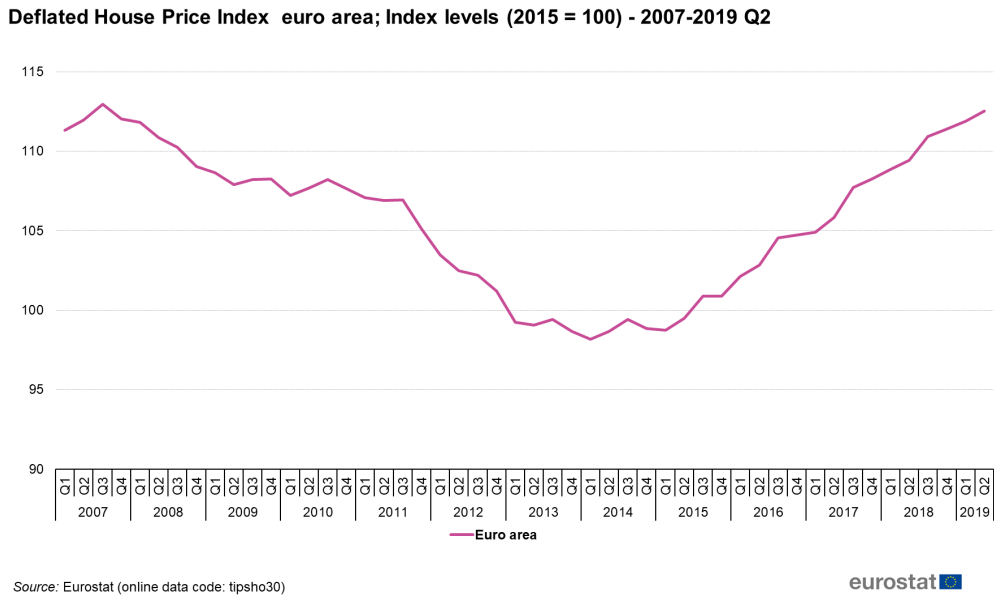


Figure 5: Deflated house price index euro area; index levels (2015 = 100) – 2007-2019Q2

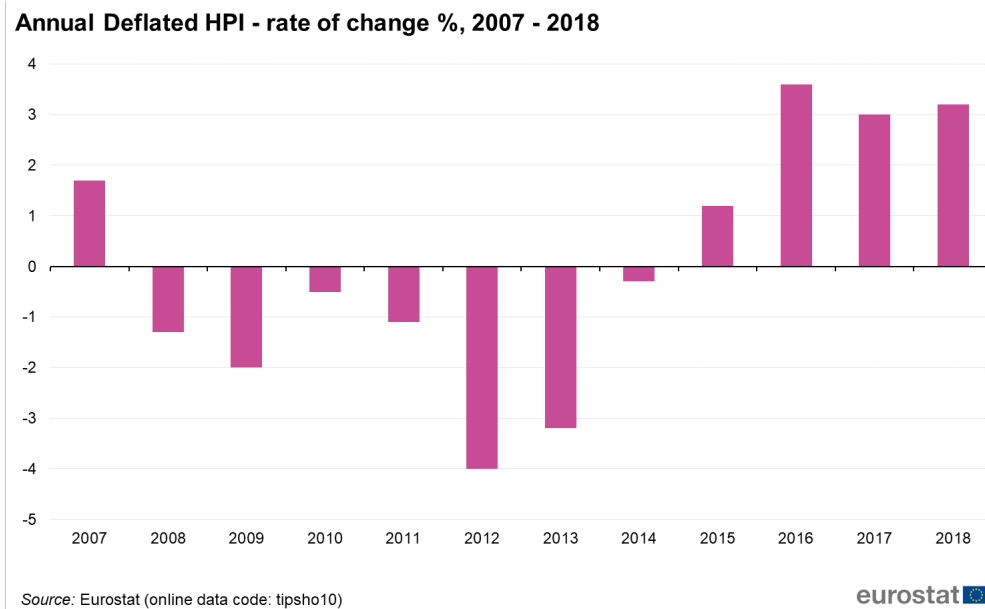


Figure 6: Annual deflated HPI - rate of change %, 2007-2018

Annual deflated HPI by Member States, rate of change %, 2007-2018

	DEFLATED HPI (1 year % change)											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Belgium	4.8	1.1	0.0	1.4	1.0	0.3	0.4	-1.1	1.0	0.9	1.7	1.1
Bulgaria	18.3	17.6	-21.0	-12.3	-8.7	-5.3	0.4	1.5	1.6	7.1	6.2	3.9
Czechia	16.0	7.7	-4.7	-2.2	-1.7	-3.6	-0.8	1.8	3.8	6.7	9.1	6.1
Denmark	0.9	-7.9	-13.0	0.3	-4.0	-4.9	3.1	3.2	6.5	4.7	3.3	3.5
Germany	-4.0	-0.5	0.7	-0.5	1.6	2.1	1.6	2.2	4.2	6.8	4.6	5.1
Estonia	12.0	-16.3	-36.3	1.8	3.1	3.1	7.3	12.9	7.3	4.0	1.8	2.1
Ireland	4.3	-8.4	-13.7	-11.6	-17.9	-14.6	-0.1	15.5	10.8	7.1	9.8	8.3
Greece	2.3	-2.5	-4.7	-8.0	-7.5	-12.1	-9.1	-5.1	-3.4	-1.7	-1.6	1.3
Spain	6.2	-4.8	-5.7	-3.7	-9.7	-16.5	-10.0	0.2	3.7	4.4	4.5	5.3
France	3.5	-1.9	-4.7	3.6	4.0	-2.0	-2.6	-1.7	-1.8	0.8	2.2	1.5
Croatia	8.9	-2.6	-8.0	-7.7	-2.1	-4.6	-5.8	-1.1	-2.4	2.1	2.8	4.8
Italy	2.6	-0.5	0.0	-0.9	-1.5	-5.0	-7.5	-4.9	-4.0	0.2	-2.3	-1.6
Cyprus	7.7	0.8	-6.9	-8.1	-4.4	-5.5	-3.8	-1.1	0.5	1.8	1.3	0.2
Latvia	22.0	-10.9	-34.9	-8.7	4.1	-0.4	6.5	4.3	-2.4	7.3	5.5	6.6
Lithuania	19.3	-1.7	-32.9	-8.6	2.2	-3.3	0.3	6.4	4.7	4.4	5.3	4.6
Luxembourg	4.7	0.2	-0.6	4.2	0.6	2.1	3.3	3.9	5.3	5.7	3.7	4.9
Hungary	-	-3.2	-8.9	-5.9	-6.9	-9.3	-4.3	3.4	13.3	13.6	9.4	10.8
Malta	19.6	7.1	-6.1	-1.0	-3.5	0.4	-1.4	2.1	4.0	4.8	4.1	5.1
Netherlands	2.8	0.1	-3.0	-3.3	-4.0	-7.9	-7.9	-0.1	3.4	4.4	6.1	7.4
Austria	2.1	-1.1	3.6	4.3	3.0	4.8	3.0	1.4	3.4	7.0	3.2	2.5
Poland	45.4	-4.6	-5.4	-6.0	-4.6	-6.6	-4.8	1.2	2.6	2.3	1.8	4.9
Portugal	-1.9	0.9	1.0	-1.0	-6.5	-8.7	-2.7	4.0	2.1	6.1	7.5	8.9
Romania	-	-	-26.5	-12.7	-15.6	-9.1	-2.8	-3.1	1.8	5.2	3.3	1.8
Slovenia	18.9	1.3	-10.2	-1.3	0.9	-8.4	-7.2	-6.2	1.4	3.9	6.2	7.4
Slovakia	25.7	12.9	-12.7	-4.9	-5.2	-6.0	-0.4	1.5	5.5	7.0	4.4	5.0
Finland	3.9	-2.4	-0.4	4.8	0.0	-0.5	-1.2	-1.7	-0.5	0.0	1.0	-0.1
Sweden	11.0	-1.8	1.1	6.5	1.2	0.7	4.5	8.5	11.9	7.3	4.8	-3.0
United Kingdom	7.8	-8.2	-9.7	4.0	-5.0	-1.7	0.3	6.0	5.4	5.4	2.4	0.9

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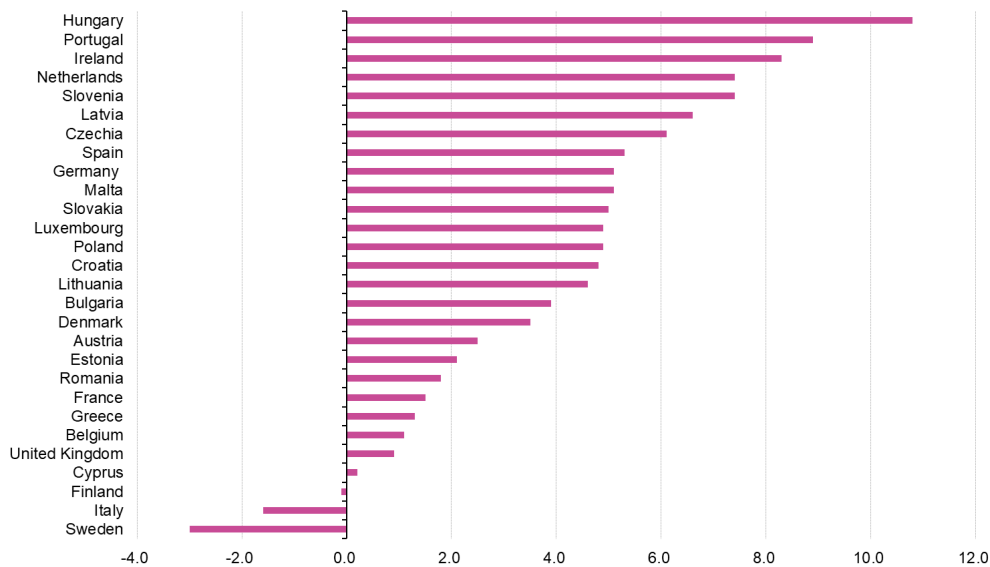
eurostat



Table 2: Annual deflated HPI by Member States, rate of change %, 2007-2018 - Source:

Eurostat ([tips10](#))

Annual deflated HPI by MS - rate of change % - EU, 2018



Source: Eurostat (online data code: tips10)

eurostat



Figure 7: Annual deflated HPI by Member State - rate of change % - EU, 2018 - Source:

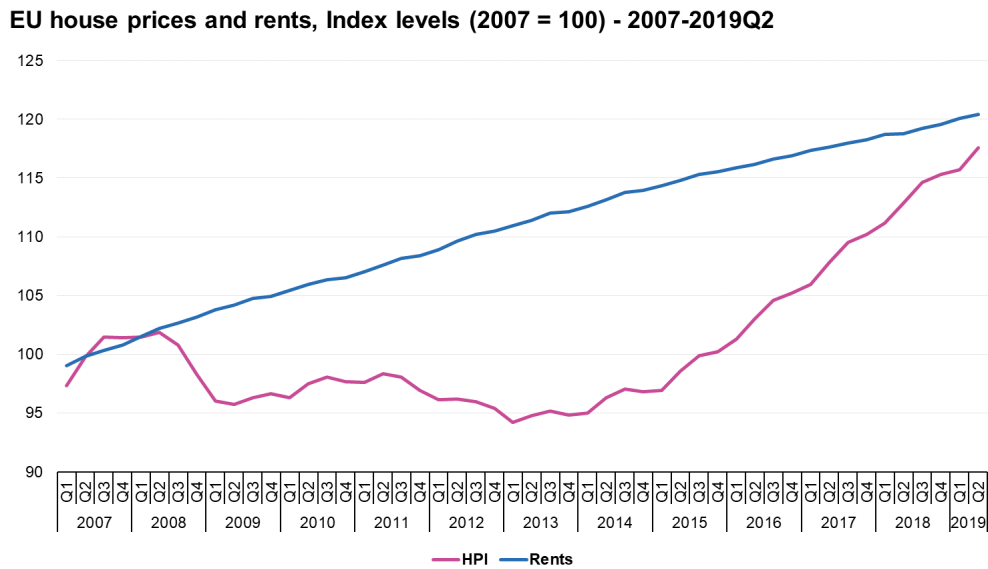
Eurostat ([tips10](#))



## Long term trends in House prices and rents

Figures 8 and 9 below show the long term trends of house prices and rents (since 2007).

The rent figures come from HICP category 'Actual rentals for housing'.



Source: Eurostat (online data codes: prc\_hpi\_a, prc\_hicp\_midx)

eurostat



Figure 8: EU house prices and rents, Index levels (2007 = 100) - 2007-2019Q2 - Source:

Eurostat ([prc\\_hpi\\_q](#)); ([prc\\_hicp\\_midx](#))

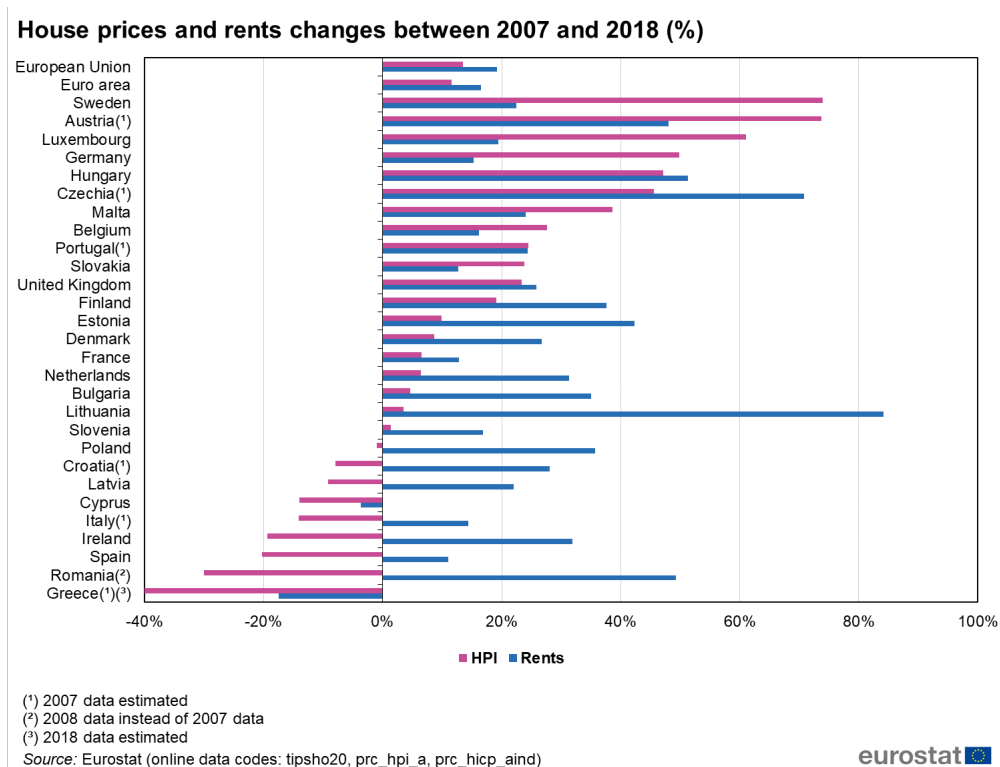


Figure 9: House prices and rents changes between 2007 and 2018 (%) - Source:

Eurostat ([tipsho20](#)); ([prc\\_hpi\\_a](#)); ([prc\\_hicp\\_aind](#))

## Handbook on Residential Property Prices Indices (RPPIs)

The financial and economic crisis has highlighted the importance of correctly measuring the prices of real estate properties. For most citizens, buying a residential property (dwelling) is the most important transaction during their lifetime. The House Price Indices (also named Residential Property Prices Indices - RPPIs) are index numbers measuring the rate at which the prices of residential properties are changing over time. Despite the importance of having official, comparable statistics on RPPIs, a common methodological framework at international level (similar, for example to the SNA for National Accounts or the ILO CPI manual for Consumer Price Statistics) was missing for residential property prices.

Given its position at the forefront of statistical developments in residential property prices since the early 2000's, in 2009 Eurostat launched an ambitious project to develop an International Handbook on RPPIs. The Handbook, released on 3 April 2013 electronically on Eurostat website, provides, for the first time, comprehensive guidelines for the compilation of RPPIs and explains in depth the methods

and best practices used to calculate a RPPI. The Handbook primarily addresses official statisticians in charge of producing residential property price indices; at the same time, it addresses the overall requirement on RPPIs by providing a harmonised methodological and practical framework to all parties interested in the compilation of such indices.

The development of the RPPIs Handbook benefitted from the collaboration of Eurostat with the members of the Inter-Secretariat Working Group on Price Statistics, currently chaired by Eurostat: International Labour Organization (ILO), International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), United Nations Economic Commission for Europe (UNECE) and the World Bank.

The Handbook is available on the dedicated [Housing statistics webpage](#).

## Data sources and availability

Methodological background information is given in the [Handbook on Residential Property Prices Indices \(RPPIs\)](#).

### Compilation

The first and most important issue in the compilation of HPIs is the availability of data on [dwelling](#) purchases. This refers to information about the price of the transaction and the dwelling characteristics. The dwelling characteristics which most influence price are the type of dwelling (flat, detached house, terraced house, etc.), its size and location. A second issue is the heterogeneity of the housing market, where virtually every dwelling bought and sold is different from the others in some respect. The consequent quality adjustment from one time period to the next is also a major methodological issue in compiling house price indices. The HPI should be seen as an independent price index aimed at measuring price developments for dwellings transacted in the market. The main technical characteristics of the HPI are:

- the price of land is included in the price and in the weight (gross acquisition concept);
- only actual transactions of dwellings are covered;

- market prices for residential properties are covered, while non-market prices are ruled out of the scope of the HPI; meaning that self-built dwellings are excluded, with the possible exception of turnkey pre-fabricated houses;
- the focus is on the measurement of price developments for all residential properties purchased by households, independently of their final use; so dwellings bought by households for uses other than owner-occupancy are included, for example for investment;
- all purchases of new and existing dwellings are to be considered, independently of their previous owner; so existing dwellings transacted between households are included.

Prices cover the acquisition cost of a property in itself, and not the total cost that is necessary to acquire, own and maintain a residential property; so other costs related to the acquisition of the property and major repairs are ruled out from its scope.

#### **Additional information on national house price data**

Below you can find the available links to the national statistical institutes' websites dealing with housing price statistics. These links contain, in some cases, additional data on housing or methodological notes regarding the compilation of house price indices. Where there is no specific link on housing, a general link to the NSI website is provided.

- **Belgium:** [data](#) provided by Statbel, the Belgian statistical office.
- **Bulgaria:** data based on OOH pilot study (complemented with estimates) provided by the [National Statistical Institute](#).
- **Czechia:** data provided by the Czech Statistical Office can be found [here](#).
- **Denmark:** data, based on OOH pilot study, provided by Statistics Denmark. Link to documentation of Statistics Denmark ['sales of real property' statistics](#).
- **Germany:** [German website on real estate prices](#).
- **Estonia:** Statistics Estonia (OOH project); link to the website of [Statistics Estonia](#) and to the [Dwelling Price Index](#).

- **Ireland:** Central Statistics Office Ireland (OOH project), Residential Property Price Index (RPPI); data can be accessed at the website of the [Central Statistics Office](#).
- **Spain:** data based on OOH pilot study, provided by INE (complemented with Eurostat estimates for 2005Q1-2005Q3 based on non-harmonised data); the link to the [INE website](#) dealing with housing price index: Methodology and results (press release, quarterly series, annual averages indices and weightings) are available therein.
- **France:** data provided by the [National Institute of Statistics and Economic Studies](#). For more information on the French HPI see [here](#). The French HPI can be found [here](#). You can also follow the quarterly publication on the French HPI [here](#). French OOH metadata can be found exclusively on the website of [Eurostat](#).
- **Italy:** provisional data provided by the Italian National Institute of Statistics; see press release and methodological note in [English](#) and [Italian](#) version.
- **Cyprus:** data based on OOH pilot study (complemented with estimates) provided by the [Statistical Service of Cyprus](#); link to [Construction and Housing Statistics publications](#) (for quarterly output prices index in construction – primarily used for self builders – and methodology); link to the [HPI statistics database](#), domain 'Harmonized Index of Consumer prices'.
- **Latvia:** data based on OOH pilot study provided by Central Statistical Bureau of Latvia (complemented with Eurostat estimates based on non-harmonised data for 2005); link to the website of [Central Statistical Bureau of Latvia](#); link to the [short-term data](#) and [annual data](#) - HPI statistics database, domain 'Consumer prices'.
- **Lithuania:** Statistics Lithuania data about Housing price statistics can be found in the [Database of indicators](#) => Economy and finance (macroeconomics) => Price indices, changes and prices => House price index (HPI), price changes and index weights => Owner-occupied housing price index, price changes and index weights.

- **Luxembourg:** data based on OOH pilot study (complemented with estimates) provided by the National Statistical Institute of Luxembourg (STATEC); methodological information available on [STATEC's website](#) for the HPI.
- **Hungary:** data provided by the Hungarian Central Statistical Office; a publication on home prices is available on the website of the Hungarian Central Statistical Office: [Housing prices, housing price index](#), a series of statistical tables are also published in the annex.
- **Malta:** experimental data provided by the [National Statistics Office of Malta](#); the HPI is an [All Property Index](#) that includes terraced houses in addition to apartments and maisonettes.
- **Netherlands:** data based on OOH pilot study, provided by Statistics Netherlands: Price index of existing dwellings for 2015=100, monthly [for Netherlands total](#), quarterly [by dwelling type](#), [by region](#); [HPI for existing and newly built dwellings](#), [OOH-figures](#); [Map Dutch housing market](#); publications on [Dutch construction and housing](#).
- **Austria:** data based on OOH pilot study, provided by [Statistics Austria](#) (complemented by Eurostat with non-harmonised estimates for the years 2005-2008).
- **Poland:** data provided by the [Central Statistical Office of Poland](#).
- **Portugal:** sources for 2009Q1-onwards, House Price Index ([Statistics Portugal](#)), methodology available on the website of [Statistics Portugal](#) (in Portuguese only); for 2008, price indexes estimated by Statistics Portugal using bank appraisals data; for the 2005Q1-2007Q4, Eurostat's estimates based on non-harmonised data.
- **Romania:** data based on OOH pilot study, provided by the National Statistical Institute of Romania (complemented by Eurostat with non-harmonised estimates for the years 2005-2008). The document on which HPI data are published is the '[Prices statistical bulletin](#)'; information and data on dwelling price indices can be found at the Methodological Note and in the table for 'Residential Property Price Indices'.

- **Slovenia:** data based on OOH pilot study, provided by the Statistical Office of the Republic of Slovenia; link to [regular housing price indices publishing](#); Slovenian HPI data are now available also through a new [web-based self-searching table](#).
- **Slovakia:** data based on OOH pilot study, provided by the Statistical Office of the Slovak Republic (complemented with Eurostat estimates for the year 2005 based on non-harmonised data); link to the website of the [Statistical Office of the Slovak Republic](#).
- **Finland:** data based on OOH pilot study, provided by Statistics Finland. Link to a web page containing all [housing related topics](#). Link for [prices of dwellings](#) in housing companies (multi-unit dwellings); link for [real estate prices](#) (single-unit dwellings).
- **Sweden:** data based on OOH pilot study, provided by Statistics Sweden can be found [here](#).
- **Iceland:** data provided by Statistics Iceland; currently Statistics Iceland doesn't have a special page or metadata for the house price index; the Icelandic house price index can be found [here](#).
- **Norway:** data provided by Statistics Norway. For more information on the Norwegian HPI see [here](#); Statistics Norway also has a [Construction and housing](#) theme page.
- **United Kingdom:** source: [Office for National Statistics](#).

## Context

In recent years, the analysis of housing markets has intensified as has the demand for high quality statistics on national, euro area and EU housing, in particular on residential property price indices. Eurostat and the national statistical institutes have been working together since 2002 on a series of pilot projects to set up a system to provide harmonised data for residential property prices at European level. Prior to this work, there was very little comparability between national data on housing prices within the EU. The development of comparable, timely and frequent statistics on changes in residential property prices has been considered an essential target for European statistics.

In this context, the terms 'residential property price', 'house price' and 'dwelling price' are used interchangeably to describe the price developments of all residential properties purchased by

households (flats, detached houses, terraced houses, etc.), both new and existing, independent of their final use and independent of their previous owners. The emphasis is on market prices, with non-market prices being ruled out from the scope of the house price indices (self-build dwellings are therefore excluded). The price of dwellings follows a gross acquisition concept, i.e. it includes the land price component.