

# Owner-Occupied Housing Price Index

The Owner-Occupied Housing Price Index is a price index, which measures development of the price level of costs/expenditure for an acquisition (purchase), quality improvement, and maintaining of an owner-occupied dwelling in the Czech Republic according to a single harmonized standard of the EU\*). It is internationally comparable statistics.

The concept of the index corresponds to that of the consumer price index (CPI/HICP). Measuring of changes in the price level of owner-occupied housing is therefore made by means of expenditure and prices related to the purchase of flats for own needs or goods and services necessary for an acquisition, quality improvement, and maintaining of an owner occupied dwelling of the household sector (so-called acquisition approach). The owner-occupied housing is treated here similarly as durables. Like in the consumer price index, only so-called net acquisitions of the household sector are taken into account, i.e. residential property transactions among individual households (usually older flats and family houses) are excluded. These transactions among households are included only in the House Price Index (HPI) – see below – but not in OOHPI.

Since the concept corresponds to that of the consumer price index, only financial transactions on the market are taken into account. Therefore, e.g. own work during self-help construction (of self-build dwellings) or a non-market price at a transfer of a flat from the ownership of a cooperative or a municipality to private ownership are excluded. On the contrary, at a sale of a residential property among households the OOHPI covers, for example, a payment to the intermediary real estate agency and a payment of a real estate transfer tax to the state (at present is zero), although the price of the flat itself does not enter the statistics (it is a transaction within the household sector).

Another criterion for a transaction to be included is whether a household purchased a flat for its own housing needs and not as an investment. Land should also be excluded if possible, because it is a non-reproducible asset. Price of insurance of owner-occupied housing is also included.

## **Basic breakdown of the Owner-Occupied Housing Price Index (published structure):**

- costs for an acquisition of a dwelling (relative weight 79.2 % for the year 2021);
- costs related to ownership of a dwelling (relative weight 20.8 % for the year 2021).

To calculate **costs for an acquisition of a dwelling**, a more detailed breakdown is used, which is not published:

- purchases of new dwellings (*market prices of new flats and family houses sold as a final product, i.e. turnkey constructions; prices of plots are excluded; only for own consumption – i.e. housing*):
  - o new flats;
  - o new family houses;
- self-help construction of new family houses (*all types – from a mere supervision of a company constructing the family house to self-help construction to the maximum extent*);
- renovations and reconstructions of family houses and flats (*the volume or quality of the dwelling stock is thus extended*)
  - o flats;

- family houses;
- net transfers of existing dwellings from other sectors to the households sector (*only market prices*);
- payment to an intermediary real estate agent/agency and real property sales tax.

To calculate **costs related to ownership of a dwelling** a more detailed breakdown is used, which is not published:

- repairs and maintenance of flats and family houses (*the volume or quality of the dwelling stock is thus maintained*)
  - flats;
  - family houses.
- insurance of owner-occupied housing.

On all of the above-mentioned levels, indices are chained every year, i.e. the internal weight structure is updated based on data from national accounts. Currently used data are from preliminary results for the year 2020.

Detailed price indices of construction works (including material), price indices of material inputs in residential buildings, and price surveys (prices of new flats and family houses; payments to intermediary real estate agents/agencies) are a source for calculation of price indices.

The index represents price level movements on the whole territory of the Czech Republic. Price indices are quarterly; they are published by the end of the following quarter; time series exists since 2008. The current index base is 2015=100 and 2010=100. The index is revisable; usually, at least one preceding quarter is revised.

## House Price Index

The House Price Index (HPI) is a synthetic price index, which measures the price level development of all residential properties in the Czech Republic according to the single harmonised standard of the EU\*). It is thus internationally comparable, which is an advantage of this index.

Main conceptual methodological aspects of the HPI are as follows:

- It measures development of prices of flats and family houses including prices of related plots.
- It applies to overall purchases of households regardless of the final use of residential property (i.e. for own housing and also for renting or as an investment).
- It includes purchases among households.
- Purchases of other sectors than households are excluded.
- It applies to acquisitions of dwellings regardless their previous owner; therefore, it includes both the new and older (already previously occupied) residential property.

- The accent is on costs for acquisition of real estates including related fees and taxes, however, not on total costs necessary to maintain these real estates.
- The weights reflect relative proportions of real market transactions; non-market prices are excluded.
- Self-help construction (of self-build dwellings) is excluded.
- Indices are calculated from prices of real estates, which were truly realised.
- The index represents price level movements on the whole territory of the Czech Republic.
- The index is chained every year, i.e. the internal weight structure is updated. Currently used data (for reference year 2021) are from preliminary results of national accounts and data from Czech Office for Surveying, Mapping and Cadastre for the year 2020.
- Indices undergo backward revisions – there is usually one refinement concurrently with publication of the index for the following period.

The HPI has the following published structure:

- purchases of residential real estates in total
  - purchases of new dwellings (relative weight 16.0 % for the year 2021);
  - purchases of existing dwellings (relative weight 84.0 % for the year 2021).

To calculate it, a more detailed breakdown is used, which is not published:

- purchases of new dwellings (*virtually only in Prague and in the surroundings of Prague*)
  - *new flats;*
  - *new family houses;*
  - *related building plots.*
- purchases of existing dwellings
  - *Prague*
    - *flats;*
    - *family houses;*
    - *related building plots.*
  - *Czech Republic (excluding Prague)*
    - *flats;*
    - *family houses;*
    - *related building plots.*

The index is chained every year, i.e. the internal weight structure is updated based on data from national accounts

Price indices are quarterly; they are published by the end of the following quarter; time series exists since 2008. The current index base is 2015=100 and 2010=100. The index is revisable; usually, at least one preceding quarter is revised.

A questionnaire (statistical form) sent to developers so that they report on realized sales of flats and family houses (turnkey constructions) is a source of data for a price index of new dwellings.

A survey on prices among real estate agencies and administrative data from Czech Office for Surveying, Mapping and Cadastre are a source of data for the index of prices of existing dwellings.

When calculating detailed price indices, mainly a more detailed categorization is used, which is based on an analysis of the variation in prices and price fluctuations. This categorization is

above all regional, the municipality size and other available characteristics of real estates are also taken into consideration. To calculate detailed price indices, dynamically modified filters are used to delete improbable extremes.

The prices entering the calculation of the OOH and HPI include all the taxes paid by households, except property tax (a capital tax on property imposed by municipalities).

*\*) Commission Regulation (EU) No 93/2013 laying down detailed rules for the implementation of Council Regulation (EC) No 2494/95 concerning harmonised indices of consumer prices as regards establishing owner-occupied housing price indices.*