

BE – Belgium

Directorate General of Statistics and Economic Information (DGSEI) (part of Federal Public Service (FPS) Economy), also known as Statistics Belgium, publishes a nationwide house price index for existing, single-family dwellings. Statistics Belgium gathers data from all registered sales. The aggregation of this data and construction of the index is performed by Stadim, a group of real estate analysts. The index is constructed using the mix-adjusted method.

Registered sales data is used to gather information on average price and number of existing homes at the district level. Dwellings are categorized according to type and location. Average price for each group is calculated; average prices that are unrealistic or based on less than six transactions are eliminated. The data is transformed into a Laspeyres chained price index, where districts are aggregated based on number of dwellings in the base period (the year 2005).

In 2005, the categories for dwelling type expanded. Specifically, single-family dwellings were divided into three separate categories: small, average and large. This methodological change caused a break in the series between 2004 and 2005, but affects mainly the Brussels region index and the indexes for the single-family sub-divisions. The aggregate index that we use is minimally affected. Data is reported at a quarterly frequency.

The house price series is not seasonally-adjusted by the source. We seasonally-adjust the data using a BSTS model and re-base the series to 2005=100. We deflate this house price series using the Personal Consumption Expenditure (PCE) deflator obtained from the OECD Economic Outlook database.

We complete the Belgium data by reporting Personal disposable income (PDI) on a *per capita* basis, which we computed by dividing the interpolated (and seasonally-adjusted) PDI by the quarterly working-age population series. Both series were originally obtained through the OECD Economic Outlook database. The source of the PDI and working age population data changed, with the 2012 first quarter update, affecting all subsequent updates. Gross disposable income and consumption of fixed capital for households is collected from Statistics Belgium. The gross disposable income series is reported at a quarterly frequency and begins in 1999. The consumption of fixed capital is reported at an annual frequency, starting in 1996. This annual consumption of fixed capital series is interpolated to a quarterly frequency using the quadratic-match average method. The resulting series is subtracted from the gross disposable income series to compute net disposable income. The net disposable income series from Statics Belgium is largely influenced by seasonal factors, so we use a BSTS model in state-space form to identify and systematically extract the seasonal and excessively volatile components of the data. Prior to 1999, annual data for net household disposable income is obtained from the OECD Outlook database 86. This series is interpolated to a quarterly frequency using the quadratic-match average method. The resulting quarterly growth rates are used to extend the “smoothed” data from Statistics Belgium to the first quarter of 1975.

Because the consumption of fixed capital series is annual, we use a BSTS model to estimate a value for the current year. The quarterly series obtained using interpolated nowcast will be

subsequently replaced as the official annual data becomes publicly available. We use the same approach in subsequent updates of the dataset.

Current working age population data is now obtained from the OECD Main Economic Indicators database. It is reported at a quarterly frequency and begins in the first quarter of 1995. We use the quarterly growth rates of the discontinued working age population series from the OECD Outlook 90 database to extend the series to the first quarter of 1975. We use the PCE deflator to express the PDI *per capita* series in real terms. Both nominal and real PDI measures are re-based to 2005=100.

Information Resources:

Statistics Belgium (in French) Data

http://statbel.fgov.be/fr/modules/publications/statistiques/economie/ventes_de_biens_immobiliers.jsp

Stadim Data

<http://www.stadim.be/index.php?page=stadimindexen&hl=en>

National Bank of Belgium Data

<http://www.nbb.be/belgostat/DataAccesLinker?Lang=E&Code=Natrek>
<http://www.nbb.be/belgostat/DataAccesLinker?Lang=E&Code=fedplan>

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