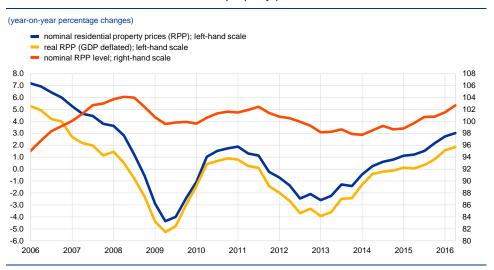
3 Recent developments in euro area residential property prices

The upturn in euro area house prices has continued in the first half of this year. According to the ECB's aggregate residential property price indicator, the annual growth rate in euro area house prices was 3.0% in the second guarter of 2016, up from 2.7% in the previous quarter and 2.2% in the last quarter of 2015. 19 This points to a continuation of the upturn that started in early 2014 after the house price index reached a low (see Chart A). The annual growth rates are now back to the longer-term average. 20 Measured in real terms – here adjusting house prices with the GDP deflator as a measure of underlying inflation – annual real house price growth has in fact moved above longer-term averages.

Euro area nominal and real residential property prices



Source: ECB calculations based on national data Note: The latest observations are for the second guarter of 2016.

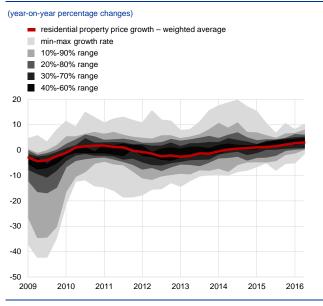
Developments in euro area residential property prices are still heterogeneous across countries, but the differences are narrowing. The dispersion appears to have diminished over time, reflecting the fading-out of adjustments and corrections in housing markets in a number of countries after the 2007-08 financial crisis. This narrowing dispersion not only reflects the fact that fewer countries have recorded extreme high or low growth rates than previously, but also that the core of the distribution of residential property price growth rates is more compact (see Chart B). Nevertheless, the upturn in house prices has been taking place at different growth rates across countries. Looking beyond shorter-term volatility in house price growth, countries that have been at the upper end of the spectrum of average annual growth rates in nominal house prices since early 2014 include Germany, Estonia, Ireland,

According to Eurostat's House Price Index (HPI) released in October, house prices in the euro area increased by 2.9% year on year in the second quarter of 2016, decelerating slightly from 3.1% in the first quarter. While Eurostat's HPI is broadly similar to the ECB's residential property price indicator, the HPI refers to different country indicators for some euro area countries.

The average has been calculated over the period since 1999.

Luxembourg, Austria and Portugal (see Chart C). Overall, this upturn is currently supported by strong growth both in countries that did not experience a collapse in the housing market in the aftermath of the financial crisis (e.g. Germany, Austria) and in countries that did suffer from such a bust but that have in the meantime seen corrections that facilitate a recovery going forward (e.g. Ireland, Spain, Latvia and Lithuania). In Greece, Italy and Cyprus, however, average growth has remained negative even after 2014.

Chart BCross-country dispersion of euro area residential property price growth rates over time

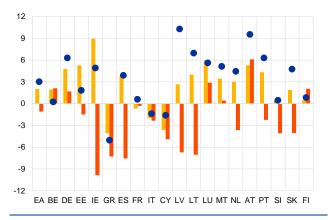


Source: ECB calculations based on national data.

Note: Shaded areas denote the band of house price growth rates by country in a given growth decile. The deciles are based on the house price growth rates in the respective quarter. The latest observations are for the second quarter of 2016 for all countries apart from Greece, Cyprus and Lithuania, where they are for the first quarter of 2016.

Chart C Residential property price growth rates across euro area countries





Source: ECB calculations based on national data. Note: The latest observations are for the second quarter of 2016 for all countries apart from Greece, Cyprus and Lithuania, where they are for the first quarter of 2016. Euro area (EA) is aggregated based on GDP weights.

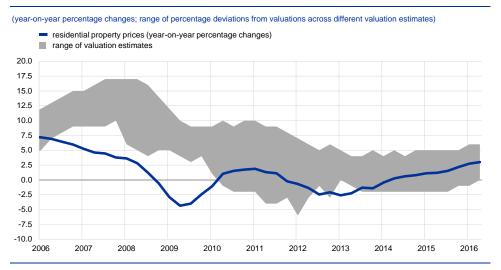
The current recovery has lasted for just over two years and so is still at a fairly early stage. The average duration of major upturns in historical data is close to nine years. ²¹ Upturns in house price cycles have often come to an end because expansions developed into outright booms with unsustainable valuations. Valuation measures applied to euro area aggregate data suggest that prices are currently broadly in line with fundamentals and show no signs of the excess seen in 2007, i.e. at the end of the previous major upturn (see Chart D). ²² However, this aggregate perspective does not rule out excessive valuations and corresponding vulnerabilities

This calculation applies a standard methodology to detect peaks and troughs in real house prices. The peak/trough identification uses the "BBQ" algorithm of Harding, D. and Pagan, A., "Dissecting the cycle: a methodological investigation", *Journal of Monetary Economics*, Vol. 49, Issue 2, 2002, pp. 365-381. See also the article entitled "The state of the house price cycle in the euro area", *Economic Bulletin*, Issue 6, ECB, 2015.

Estimates of valuations tend to be surrounded by considerable uncertainty and large differences across approaches. For further details see the box entitled "Tools for detecting a possible misalignment of residential property prices from fundamentals", *Financial Stability Review*, ECB, June 2011, and the box entitled "A model-based valuation metric for residential property markets", *Financial Stability Review*, ECB, November 2015.

at the country or regional level, especially when house price dynamics are combined with strong mortgage growth and high leverage. In the context of the current low-yield environment and the related ongoing search for yield, such vulnerabilities should be carefully monitored.²³

Chart DValuation estimates of residential property prices



Source: ECB calculations based on national data.

Note: Estimates are based on four different valuation methods: the price-to-rent ratio, the price-to-income ratio, an asset pricing approach and an inverted demand model.

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²³ See also the *Financial Stability Review*, ECB, May 2016.