## 3 Recent house price increases and housing affordability

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Euro area residential property price dynamics gained further momentum in 2017. In the third quarter, the annual rate of change in the ECB's residential property price indicator was 4.4%, up from 3.9% in the previous quarter (see Chart A). This acceleration is fairly broad based across euro area countries, albeit at different levels of house price growth, with two countries still exhibiting negative annual rates of change in the third quarter and another two with rates of more than 10%. The house price increases over the past few years may have implications for housing affordability. This box discusses some selected indicators of affordability.

**Chart A**Euro area nominal residential property prices

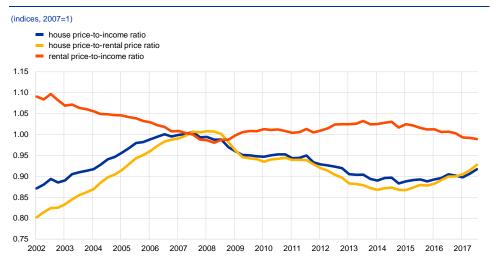


Source: ECB calculations based on national data.

## The notion of affordability varies for different groups of households.

Affordability essentially concerns housing costs relative to income. Whether these costs are affected by house price increases typically depends on how a household describes itself, be it as a buyer, an owner, or a tenant. At the aggregate level, house prices have recently increased slightly faster than household disposable income, suggesting a worsening of average affordability (see Chart B). However, this would apply in the first instance to those who have recently bought, or plan to buy, a house or a flat at the higher prices.

**Chart B**Euro area aggregate affordability indicators



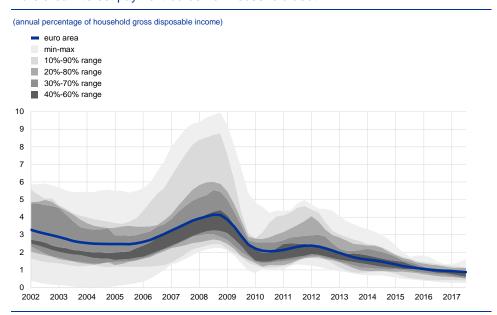
Sources: Eurostat and ECB calculations.

Notes: Income refers to household gross disposable income. The latest observations are for the third quarter of 2017.

Affordability for homeowners depends to a large extent on whether they have debt servicing obligations. At the aggregate level, the debt servicing burden can be gauged by the ratio of interest payments to disposable income. <sup>16</sup> Reflecting low interest rates, this ratio has gradually decreased in the past few years across euro area countries (see Chart C). The effect of higher house prices has thus been alleviated by lower interest burdens. For households that already own a home, the rise in house prices may even have increased affordability if the higher collateral value of the property reduces borrowing costs when housing loans are renegotiated.

The ratio of interest payments to disposable income disregards subsidies and tax allowances, which can have the effect of reducing the cost of housing.

**Chart C**Euro area interest payment burden on household debt



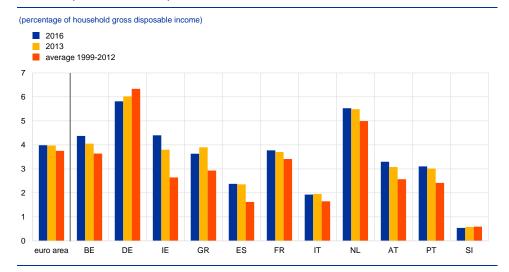
Sources: Eurostat and ECB calculations.

Notes: Shaded areas denote the deciles of interest payment burden by country, over one year. The deciles are based on the interest payment burden in the last four quarters. This chart depicts the interest payment on household debt, since the breakdown of interest payment by loan purposes (housing, consumption, others) is unavailable in the national accounts. No data are available for Estonia, Cyprus. Latvia. Lithuania. Luxembourg. Malta and Slovenia. The latest observations are for the third quarter of 2017.

How much of an impact the increase in house prices has on tenants depends on whether there are spillovers to rental prices. House price increases do not generally fully pass through to rents. 17 At the aggregate level, rental prices have increased to a lesser extent than house prices and disposable income in recent years (see Chart B for the house price-to-rental price ratio and rental price-to-income ratio). This suggests that, thus far, tenants have on balance experienced an improvement in housing affordability. However, over time, owners who have bought their houses and flats for letting out will want to recover the higher purchase price or the higher costs for repair and maintenance that may arise in a tightening housing market. The recent increase in house prices may hence yet negatively impact the housing affordability of tenants when they enter into a new tenancy agreement or their existing leases are renegotiated. Furthermore, euro area housing affordability for tenants, measured by the share of income devoted to rental expenditures, hovered around 4% between 2013 and 2016 (see Chart D). This stability, at a time when the rental price-to-income ratio declined (see Chart B), indicates the effects of higher demand, reflecting a greater share of tenants in the population.

For a more in-depth discussion, see the box entitled "House prices and the rent component of the HICP in the euro area", *Monthly Bulletin*, ECB, August 2014. A more muted response could, for instance, be explained by a relatively large share of euro area households who rent at reduced prices – for instance households in social housing (accounting for around 10% of all households, according to microdata from EU Statistics on Income and Living Conditions – EU-SILC).

**Chart D**Rental expenditures-to-disposable income ratio, in selected euro area countries



Sources: Eurostat and ECB calculations.

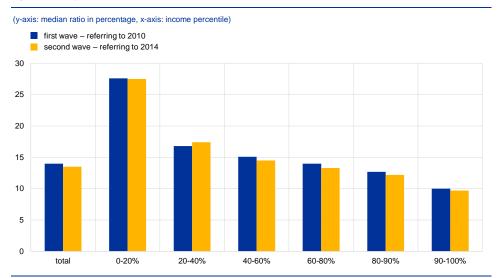
Notes: Data are available only for the 11 countries contained in the chart. The rental expenditures presented above are based on actual rents.

Affordability is ultimately better assessed by means of individual household data. Aggregate data, as presented above, can thus only provide likely average trends, while more in-depth assessments need to be based on microdata. For example, whereas the ratio of aggregate interest payments to aggregate income for the euro area in Chart C has declined to 0.9%, microdata from the 2016 Household Finance and Consumption Survey<sup>18</sup> for households that actually hold debt suggest a much higher debt service-to-income ratio. Half of the indebted households exhibited a debt service-to-income ratio higher than 14% (see "total" in Chart E). The median ratio was above 27% for households with an income in the bottom quintile of the distribution and around 10% for the highest decile group. This ratio declined somewhat for most income deciles compared with the previous wave of the survey.

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<sup>18</sup> Results from the second wave of the Household Finance and Consumption Survey were published in 2016, and refer to the year 2014.

**Chart E**Debt service-to-income ratio, among households with debt payments – breakdown by income percentile



Sources: Eurosystem Household Finance and Consumption Survey (HFCS) and ECB calculations.

Notes: The debt service is the set of payments, including the principal amount and interest, to be made by the debtor over the life of a debt. The household disposable income includes the income from its activity (after deduction of social security contributions), the income from its assets, the transfers from other households, and social benefits, net of direct tax.

## Microdata from EU Statistics on Income and Living Conditions point to minimal changes in households described as "overburdened" by housing

costs. In the statistics available, households are considered "overburdened" if their costs ("net" of housing allowances) for rentals, mortgage interest payments and the cost of utilities amount to more than 40% of their disposable income. The share of households falling into this category has remained around 11% (see Chart F). The "overburden rate" is somewhat higher and slightly increasing for tenants (especially when they rent at market price) than for owners. This is likely to be related to a slightly increasing proportion of tenants in segments of the population with the lowest incomes.

**Chart F**Housing cost overburden rate by tenure status



Source: Eurostat, EU Statistics on Income and Living Conditions (EU-SILC).

In conclusion, aggregate data suggest that the recent acceleration in euro area house prices currently implies a slight worsening of housing affordability for buyers. For owners, whose debt servicing burdens have declined, the opposite is true. For tenants, rental prices have remained relatively subdued and, to date, have not significantly changed affordability. The latest available microdata do not point to increases in the share of households "overburdened" by housing costs. This offers another perspective that affordability may, thus far, have been little affected.