Box 4

HOUSE PRICES AND THE RENT COMPONENT OF THE HICP IN THE EURO AREA

According to the ECB residential property price indicator, euro area house prices decreased by 0.5% year on year in the first quarter of 2014, and thus by less than in the previous quarter (-1.6%). Developments in the individual euro area countries by and large point in the same direction, with either stronger positive growth or less negative growth. For the euro area as a whole, the latest figures imply an annual average decline of 1% since the start of the recession in early 2008. At the same time, the rent component of the euro area HICP has increased in a fairly stable manner, by an annual average of 1.4% over the same period, thereby mitigating the recent disinflation in the services component of the HICP. This box reviews developments in house prices and the rent component of the HICP in the euro area and across euro area countries, examining to what extent the two series move together or movements in house prices anticipate movements in rents, which could then be relevant to overall HICP developments.[1]

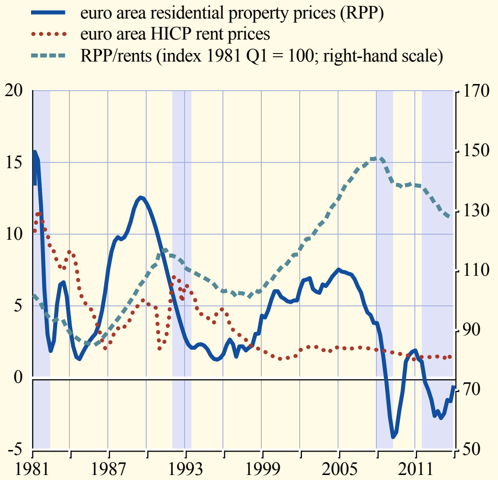
Limited co-movement of euro area house prices and rents over business cycles

The notion that house prices and rents should not move too far out of line from one another rests on the idea propagated in the asset pricing theory that the value of an asset equals the discounted value of the stream of dividends it generates. By analogy this would imply that the higher the rents and their discounted values, the higher the price of the property, and vice versa.

Data since the early 1980s indicate that this theoretically suggested co-movement is very limited. Annual changes in euro area residential property prices exhibited a much larger cyclical variation than the annual changes in the rent component of the euro area HICP, and there have also been clear time shifts between the movements in the two series, implying an overall low correlation (Chart A). Since the early 2000s, the lack of co-movement has been particularly apparent, with euro area house prices following a sustained acceleration up to 2007/8 and an extended correction thereafter; in the same period, rents increased steadily at annual rates of between 1.5% and 2%. While the two series have thus tended to move apart for protracted periods of time, they tend to realign during recessions (shaded areas), when the annual rates of change in house prices tend to fall below those in rents. This is also evidenced by the ratio between house prices and rents,

Chart A Residential property prices, rents and house price-to-rent ratio in the euro area

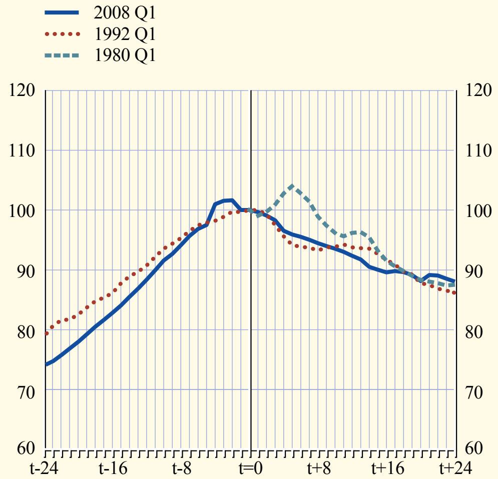
(annual percentage changes, quarterly data)



Sources: Eurostat and ECB calculations based on national data.
Note: Shaded areas indicate recession periods based on CEPR.

Chart B House prices-to-rent ratio in the euro area around recession episodes

(index = 100 at start of the recessions (t = 0); quarterly data)

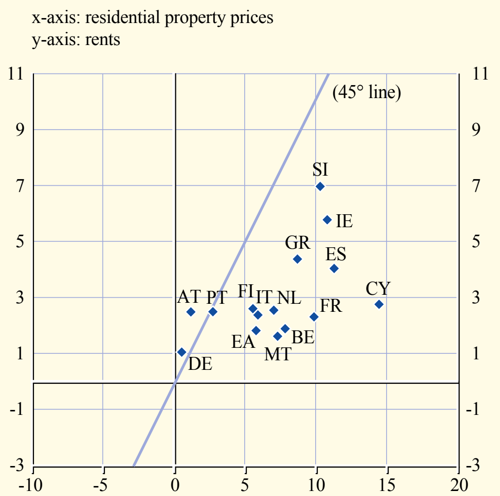


Sources: Eurostat and ECB calculations based on national data.
Notes: Timing of recessions based on CEPR. Data prior to 1980 are not available.

1 For a discussion, see also the box entitled "Euro area house prices and the rent component of the HICP", *Monthly Bulletin*, ECB, August 2010.

Chart C Residential property prices and rents in the euro area countries – pre-2008 recession period

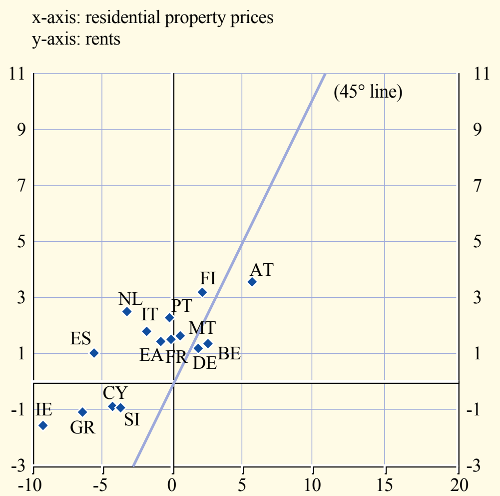
(annual averages 1999 Q1 - 2008 Q1; percentage changes)



Sources: Eurostat and ECB calculations based on national data.
Notes: Estonia and Latvia are not included in the sample due to their late membership of the euro area compared with the sample examined. Data for LU and SK are not available.

Chart D Residential property prices and rents in the euro area countries – post-2008 recession period

(annual averages 2008 Q1 - 2014 Q1; percentage changes)



Sources: Eurostat and ECB calculations based on national data.
Notes: For comparison, the same group of countries shown in Chart C are presented. Data for Belgium are up to Q4 2013 inclusive.

which generally peaks before recessions and corrects thereafter, mainly on account of movements in house prices rather than in rents (Chart B). These adjustment processes characterising house price cycles tend to be longer than growth and business cycles but have never fully realigned the level of house prices with that of rents, as shown by the secular increase in the house price-to-rent ratio in recent decades (Chart A).

The picture of strong and protracted house price cycles around more stable rent developments is pervasive across euro area countries. Between 1999 and the start of the recession in 2008, changes in house prices clearly exceeded those in rents (Chart C), except in Austria, Germany and Portugal. In addition, with the exception of Slovenia, Ireland, Greece and Spain, countries had relatively similar annual average rent growth of between 1% and 3%.

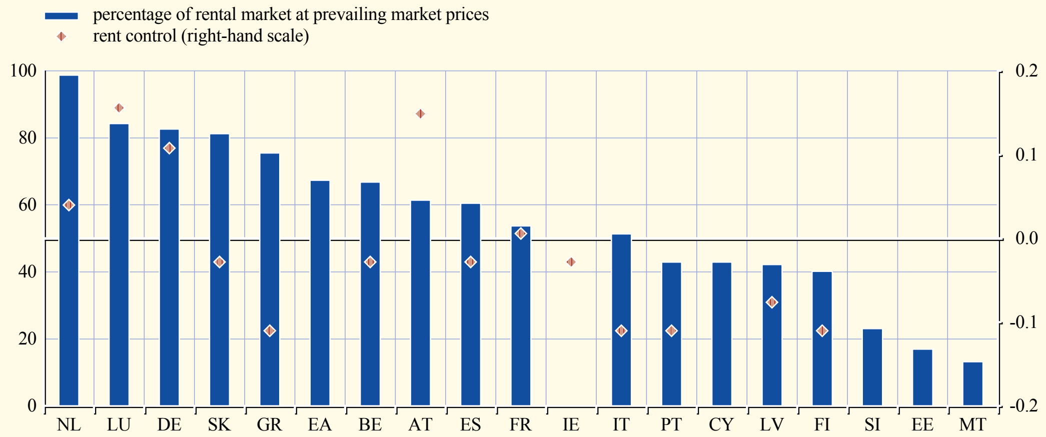
In the period since the 2008 recession (Chart D), the situation has reversed, with average annual house price growth typically lower than rent growth in most countries that had previously seen higher house price growth, while house price growth has been stronger than rent growth in countries such as Austria and Germany, where the opposite had been observed before the recession. Moreover, in some countries, such as Ireland, Slovenia and Greece, where average rent growth had been clearly higher than elsewhere in the euro area before the recession, it was visibly lower (in negative territory) after the recession.

Features of the housing market explaining misalignment of rents and house prices

There are many reasons why house prices and rents should not be expected to strongly co-move – even in the long run[2] – and why rents may generally evolve in a more stable

2 Statistical tests indicate that house prices and rents are generally not co-integrated in the majority of euro area countries, in other words they do not co-move over time and there is generally no stationary linear combination of the two series.

Chart E Percentage of rental market at prevailing market prices (2012) and rent control (end-2012)



Sources: EU SILC database, Cuerpo et al. (2014) and ECB calculations.
Note: For rent control a higher index indicates a higher degree of rent control.

fashion than house prices. In particular, there are additional variables playing a role in the interaction between house prices and rents which could trigger lasting misalignments between the two variables.[3] This section focuses on two features of the housing market: rent control and the degree of home ownership.

One reason why rents can evolve in a relatively stable manner and show little reaction to developments in house prices is regulation and the control of rental prices. The share of the rental market for which tenants pay a rent at prevailing market prices (so-called "private sector renters") versus a reduced rent (such as for social housing) differs widely across euro area countries (Chart E)[4]. The relative size of the market for private sector renters is, for instance, largest in the Netherlands, Luxembourg, Germany and Slovakia, but even this market is often subject to regulation, either in the form of rent indexation and/or in the case of a cap on rent increases and/or long rental agreements, which would imply only a limited adjustment of rents to general demand and supply conditions and to house prices in particular. According to one measure of the degree of rent control, with a higher index pointing to higher rent control,[5] Luxembourg, Austria, Germany and the Netherlands exhibit the highest degree of rent control. Indeed, rent control seems to be positively correlated with the relative size of the private rental market and negatively related to the degree of home ownership (Chart F). Generally, countries where the home ownership ratio is high tend to be characterised by a comparatively small proportion of the rental market which is of the "private sector renter" type, but this then tends to be subject to relatively little control.

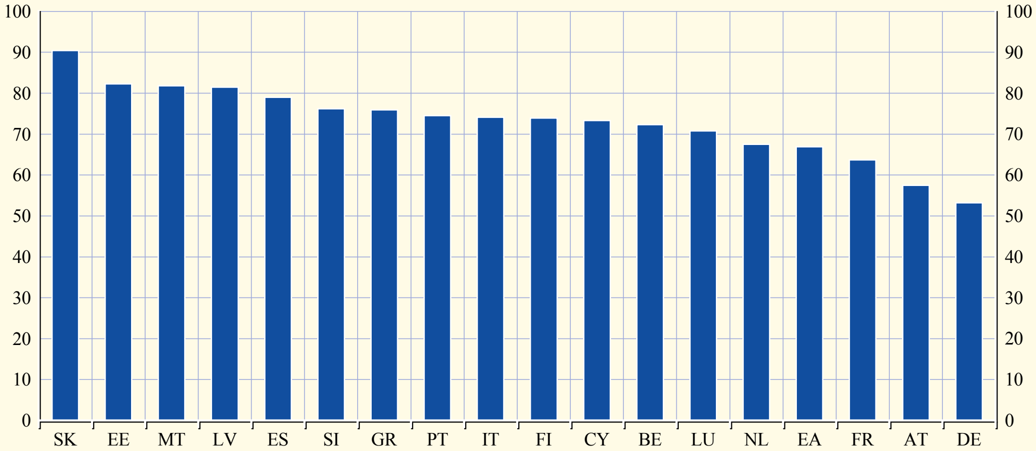
3 In a simplified user cost of housing framework the ratio between rent and house prices equals the sum of the nominal interest rate plus the property tax rate plus the rate of maintenance and depreciation minus the expected capital gains. In fact, numerous factors may cause house prices to fall relative to rents: (i) higher interest rates/stricter financing conditions; (ii) higher property taxes; (iii) higher maintenance and depreciation costs; (iv) expectations of house price depreciations postponing decisions of house purchases in favour of renting; and (v) increased down payments.

4 EU Statistics on Income and Living Conditions (SILC). Reduced-rate renters would include those (a) renting social housing, (b) renting at a reduced rate from an employer, and (c) in accommodation where the actual rent is fixed by law.

5 Cuerpo, C., Kalantaryan, S. and Pontuch, P., "Rental Market Regulation in the European Union", *Economic Papers*, No 515, European Economy, Brussels, April 2014.

Chart F Home ownership (2012)

(percentages)



Sources: EU SILC database and ECB calculations.
Note: Data for Ireland are not available.

In conclusion, house prices and rents in the euro area can exhibit divergent developments for protracted periods of time, and both the misalignment and realignment tend to be driven by house prices rather than rental prices. The reasons for divergent developments can be both structural and macroeconomic in nature, including – on the rent side – different degrees of regulation and control across euro area countries, which tend to dampen potential reactions of rents to house prices. In this respect, it is not being assumed either that a turning point in house price growth will put significant upward pressure on euro area HICP inflation via the rent component or that a lagged response of rents to the house price declines in past years will, conversely, put downward pressure on inflation.