Housing prices in Portugal: solid foundations or feet of clay?

Contrary to other economic sectors, some of which have registered 70% declines in their turnover, when we look at the housing market we see that the pandemic crisis seems to have passed it by. In Q4 2020, the number of sales already exceeded that of the same period in 2019, and in the first half of 2021 sale transactions exceeded those of the same period in 2019 and 2020. Housing prices have also maintained the upward trajectory which began in 2015, both according to the National Statistics Institute's index and per the index produced by Confidencial Imobiliário. This price trend is also evident in the median value per square metre according to bank valuations carried out for mortgage applications, which in October 2021 registered the highest value in the series and stood 17% higher than in October 2019. At a time when all the variables (sales, price and value) are on the rise, it is worth considering whether this growth is sustainable. Are the foundations that underpin these valuations sound?

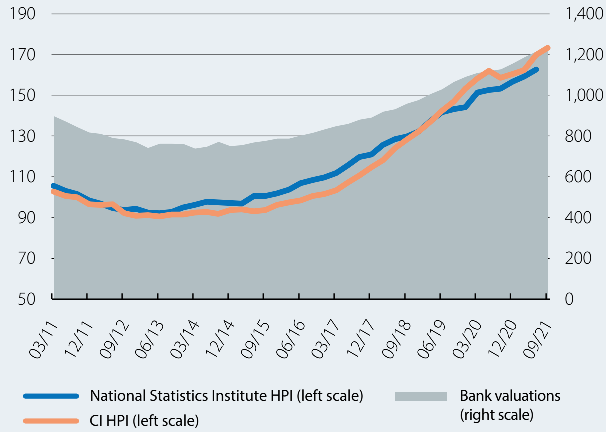
It would be reasonable to think that an increase in the price of buildings would serve as an incentive for increased supply and greater investment in building construction for housing. Such a development could lead to oversupply. Despite this, given the long production period in the housing construction sector, this excess supply is not generated in one or two years.

To assess whether or not we are facing a situation of property overhang,[1] we can compare the difference between the current residential GFCF[2] (expressed as a percentage of GDP) and the average of the past 20 years. Since 2015, investment in housing has been falling short of its historical average of the past 20 years (5.5% of GDP) resulting in the accumulation of a 17-point gap in terms of GDP. This suggests that there has not been an oversupply of residential property in recent years (quite the contrary).

Another way to estimate whether the current pace of housing construction is sustainable in the long term is to compare the number of homes built with the pace of household creation. Assuming properties have a 2% depreciation rate (and implicitly assuming that a home lasts 50 years), a construction rate of 20 homes per 1,000 households would keep the stock of homes per household constant. Being more restrictive and considering a depreciation rate of 1%, a construction rate of 10 homes per 1,000 households is required to keep the

Portugal: housing price and bank valuation indices

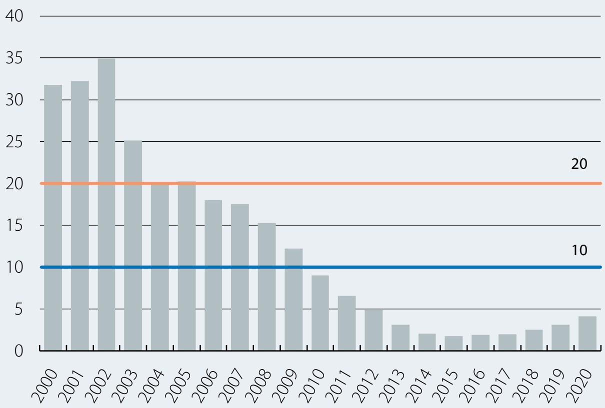
(Level 100 = 2011) *(Euro/m²)*



Source: *CaixaBank Research, based on data from the National Statistics Institute of Portugal and Confidencial Imobiliário.*

Portugal: supply of new housing

(Number of new homes per 1,000 households)



Source: *CaixaBank Research, based on data from the National Statistics Institute of Portugal and Pordata.*

stock of housing unchanged.[3] In the case of Portugal, the construction index has been below these benchmark values: below 20 since 2006 and below 10 since 2010, suggesting that there has not been any excess supply of new housing applying downward pressure on prices.

Similarly, the percentage of sales transactions that correspond to new housing, which has fallen from over 30% up to 2011 to somewhere on the order of 15% today, seems to confirm this idea.

1. See the article by D. Gros (2007). «Bubbles in Real? A longer-term comparative analysis of housing prices in Europe and the US». CEPS Working Document, nº 276, October.
2. Gross fixed capital formation.

3. This construction index can be adjusted taking into account, for instance, the annual population growth rate. Since Portugal's annual population growth rates over the last decade have been residual/zero, we chose not to make any adjustment.

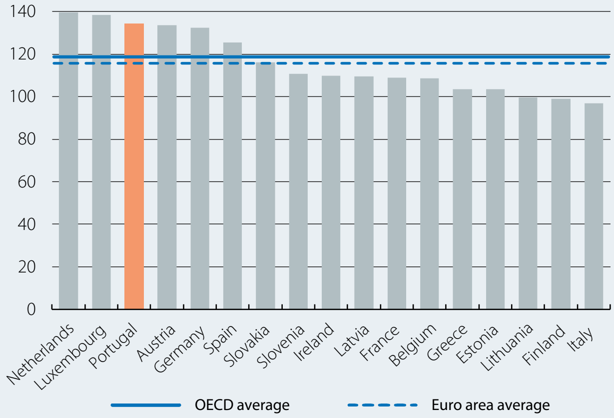
However, the scenario is not so encouraging when we look at the factors that determine demand, particularly household incomes. The OECD develops an accessibility indicator which compares the price of housing to disposable income per inhabitant,[4] and according to the latest available data (Q2 2021) Portugal (with a ratio of 134) fares poorly compared to other euro area countries, ranking third worst, as well as compared to the OECD average (= 118.7).

If we interpret the difference between the current house price-to-income ratio and the historical average as an indicator of overvaluation, the current indicator is 12% above that average and has followed a strong growth trend since 2015, meaning that housing is becoming less and less accessible relative to people's incomes. In fact, between 2015 and 2020 the growth in housing prices averaged around 9% per year, while average household disposable income grew at a rate of just 3% per year. In other words, in 2015 the average value of housing in the Lisbon metropolitan area was equivalent to 5 and a half years' worth of the average income of a Portuguese household, while by 2020 this value had risen to 6.5 years.

Could we be facing a speculative bubble? Bubbles occur in the housing market when prices move away from their fundamentals and a spiral of expectations of rising prices is generated. This leads market participants to engage in «over activity» in an attempt to obtain future gains from the expected increase in values. This behaviour leads to an explosive increase in prices which temporarily dominates the dynamics of the time series. To clarify this possibility, we apply an econometric methodology[5] to the HPI in order to detect and delimit periods that may be associated with bubbles. The result of this statistical test is expressed in the last chart: after Q3 2017 there may be indications of the formation of price exuberance in the housing market in Portugal. Only the reversal of the low-interest-rate cycle, which is increasingly looking like a not-so-distant reality, will confirm whether or not we will see a cooling off of demand, especially in the appetite for real estate as an investment.

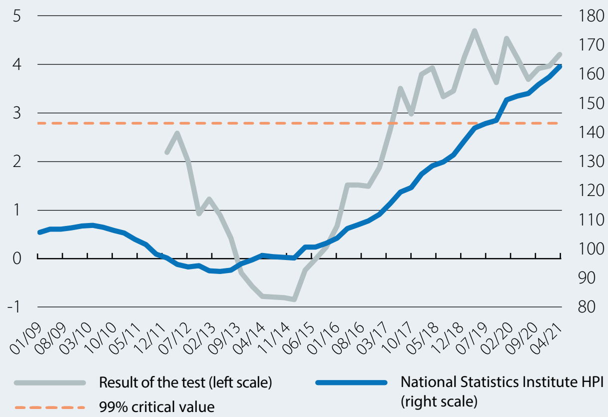
Tiago Belejo Correia

Portugal: housing prices over incomes in Q2 2021
(As a % of incomes)



Source: *CaixaBank Research, based on OECD Price-to-income data.*

Portugal: econometric test applied to the price index



Source: *CaixaBank Research, based on National Statistics Institute.*

4. House price-to-income ratio.
5. Generalized Supremum Augmented Dickey-Fuller (GSADF). See the article by P.C.B. Phillips, S. Shi and J. Yu (2015). «Testing for multiple bubbles: Historical episodes of exuberance and collapse in the S&P 500». International Economic Review, 56 (4): 1043-1078.