

Advanced economy housing markets in a scenario of tighter monetary policy (part II)

Sensitivity exercises for international housing markets

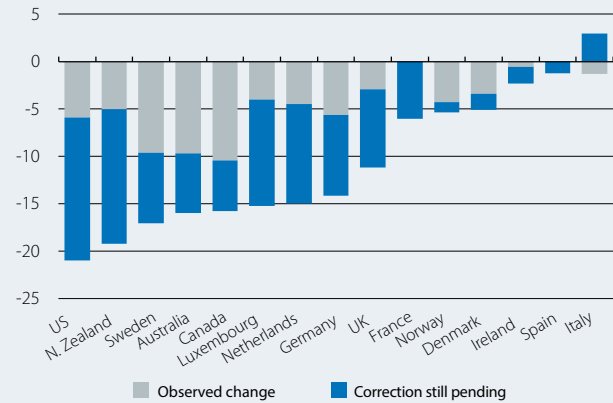
In the Focus «[Advanced economy housing markets in a scenario of tighter monetary policy \(part I\)](#)» we have documented signs of overvaluation in various international housing markets. While some of them have already begun to experience corrections, stress in housing affordability ratios and tighter monetary policy highlight the challenge posed by the current economic environment. In order to gauge the impact of these forces on real estate markets, we carried out two complementary exercises which give us clues as to the potential correction they could experience in their housing prices.

Firstly, we estimated the fall in housing prices which would be required for the housing affordability ratio (housing prices to household disposable income) to return to pre-pandemic levels within the next two years. Secondly, we estimated an econometric model which reveals the sensitivity of housing prices to an interest rate shock for each of the countries.

According to the first methodology,¹ and for all 25 countries analysed, the average correction in nominal housing prices over the next two years relative to their peak could be around 13%.² However, the differences between countries are significant. The US and New Zealand are the markets that could experience the biggest correction in housing prices (around 20% peak-to-bottom) in order to recover the affordability ratio of late 2019. In both countries, prices began to fall mid-last year, but some two-thirds of the total estimated correction is yet to occur. On the other hand, in Italy the exercise suggests that the price of housing has room for growth in the next two years, since the expected increase in household incomes alone would lead the affordability ratio to converge with the Q4 2019 level by the end of 2024. For Spain, it is estimated that a material correction in housing prices would not be necessary. Sweden, Australia and Canada, which are among the

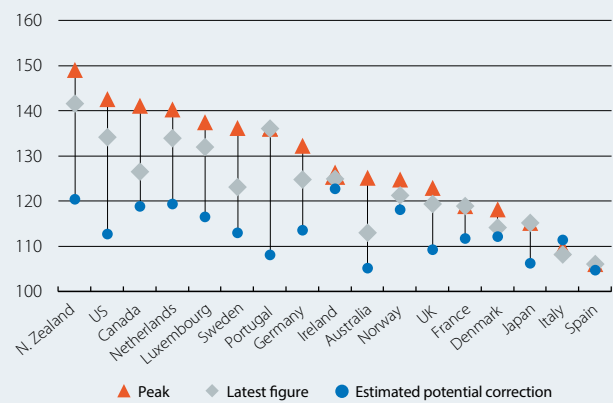
1. This calculation assumes that household income in 2023-2024 (the denominator of the affordability ratio) will grow at the same rate as real GDP and in line with the IMF's projections (October 2022 WEO). We have also performed alternative calculations using forecasts for GDP per capita and nominal GDP. The results are qualitatively similar. In other words, the correction required in order to recover the affordability ratio of Q4 2019 is achieved, in part, thanks to the improvement in the denominator (income).
 2. We consider a period of eight quarters for this correction to take place, since this is the average transmission lag from monetary policy to housing prices.

Potential correction in housing prices (Percentage drop versus the peak previously reached)



Source: CaixaBank Research, based on the International Housing Observatory database, described in Mack and Martínez-García (2011), and data from Refinitiv.

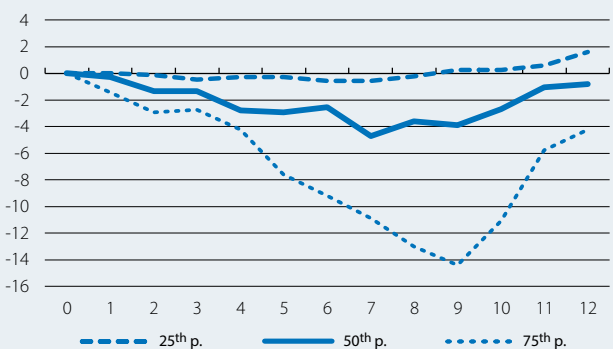
Evolution of housing prices since 2019 and estimated potential correction (100 = December 2019)



Source: CaixaBank Research, based on the International Housing Observatory database, described in Mack and Martínez-García (2011), and data from Refinitiv.

Impact of the rate rises observed in 2022 on housing prices

Deviation (%)



Notes: 1) Deviation versus the price level that would prevail in the absence of any changes in rates. 2) We show the 25th, 50th and 75th percentiles of the average price response in a sample of countries comprising the US, the euro area aggregate, Germany, France, Italy, Spain, the Netherlands, Ireland, Finland, Norway, Denmark, the UK, Canada and Australia.
 Source: CaixaBank Research.

markets which overheated the most, stand out as having already experienced more than half of the anticipated total correction. In contrast, it is estimated that Luxembourg and the Netherlands, which have a similar correction potential (around 15%), have only experienced a quarter of the total.

Although the estimated potential corrections are significant, it is also important to note that, at the end of 2024, housing prices would nevertheless remain above the levels of December 2019 in all countries. In other words, this is a partial correction in housing prices following the sharp rallies registered during the pandemic (see second chart).

The second methodology³ indicates that the tightening of monetary policy observed in recent quarters has a potential to cause a median price correction of around 5%.⁴ This analysis suggests that rate hikes take around eight quarters to be fully transmitted to housing prices, suggesting a gradual cooling in housing markets which could last throughout 2023 and 2024. Furthermore, this exercise allows us to separate the final impact of the monetary tightening process between two forces: on the one hand, the sensitivity of each economy to a particular rise in rates; and, on the other, the rate increase actually observed in recent quarters. Thus, and much like in the first exercise, in some economies we estimate a potential impact of around 15%, while in others the effect is barely noticeable.

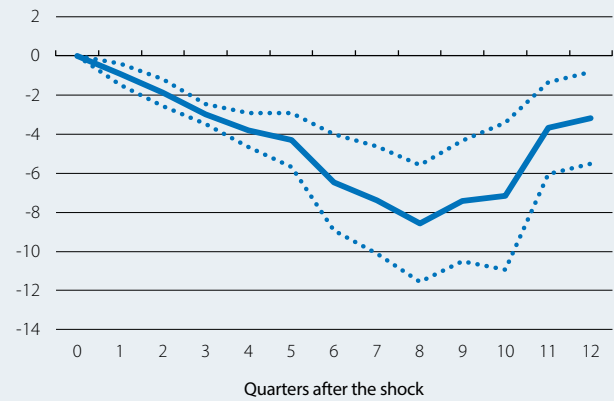
For instance, in the US, the estimated sensitivity of housing prices to interest rates is not among the highest in the sample, but the monetary tightening process has been one of the most pronounced, thus translating into a relatively high potential for correction (around 20%). The picture for the euro area as a whole is similar, albeit somewhat more moderate due to the lower stress in interest rates (potential of just under 15%). However, the estimated impact among the major European economies is clearly lower (between -2% and -10%). In the sample as a whole, the markets which stand out the most in this exercise are those of the Anglo-Saxon countries, with Canada, Australia and the aforementioned case of the US, in addition to the Netherlands in Europe.

3. We reproduced the model for the euro area used by Battistini *et al.* (2022), in «The impact of rising mortgage rates on the euro area housing market», ECB, Economic Bulletin 6/2022, and extend it to the rest of the countries analysed. Specifically, we use a vector autoregression to estimate the relationship between housing prices, residential investment and mortgage rates, adding control variables (real GDP, the CPI, the short-term interbank interest rate and housing credit), for the period 2003-2022. The impulse-response functions are estimated using the local projections method.

4. We analysed a group of Anglo-Saxon countries (the US, UK, Canada and Australia), a group of European countries (euro area aggregate, Germany, France, Italy, Spain, the Netherlands and Ireland) and another comprising Scandinavian countries (Norway, Denmark and Finland).

Euro area: impact of a 1 pp increase in interest rates on housing prices

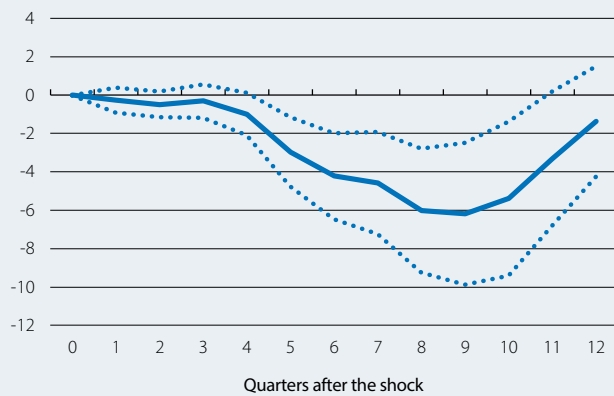
Deviation (%)



Note: Deviation versus the price level that would prevail in the absence of any changes in rates. Source: CaixaBank Research.

US: impact of a 1 pp increase in interest rates on housing prices

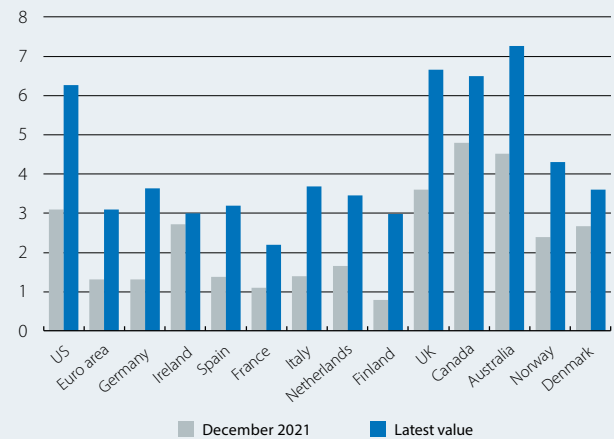
Deviation (%)



Note: Deviation versus the price level that would prevail in the absence of any changes in rates. Source: CaixaBank Research.

Mortgage rates

(%)



Source: CaixaBank Research, based on data from the Fed, ECB, BoE (Bank of England), Bank of Canada, RBA, Norges Bank and Danmarks Nationalbank.