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# How tightening mortgage credit raises rents and increases inequality in the housing market

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Housing affordability is a hot topic in many euro area countries. Steadily increasing rents and historically high house prices are forcing many households – particularly young people and city-dwellers – to devote ever more of their income to housing<sup>[2]</sup> and to move to smaller homes or increase their commuting times. This is taking place in an environment of tighter housing market regulations in the aftermath of the global financial crisis, which led many authorities to tighten credit conditions by introducing limits to mortgage debt for banks or for borrowers. While these interventions were successful in improving financial stability, which was their key objective<sup>[3]</sup>, we point to an overlooked potential downside of these policies and other restrictive shocks to credit. We explore how limiting access to mortgage credit, and therefore to homeownership, can push up rents and reduce welfare for renters and prospective buyers. .

## The role of credit in housing and rental markets

The mortgage, housing and rental markets are all interconnected. Most people rent accommodation when they first leave home. Many save for a downpayment, eventually buy residential property with a mortgage and progressively pay it off, accumulating wealth. The wealthiest may even become landlords and supply rental housing by investing in “buy-to-let” properties – frequently borrowing again to do so.

Getting a mortgage becomes much more difficult if credit supply is constrained. Constrained prospective mortgagors are now faced with two options. The wealthier households can opt for a cheaper property than they originally planned – perhaps smaller, of lower quality or in a cheaper area – reducing the amount they borrow to satisfy the tighter constraints. However, those already hunting for more affordable properties may find themselves priced out of the market altogether. Therefore, they stay tenants for longer, either buying property later in life or not at all.

In equilibrium, these developments mean that the demand for rental accommodation goes up, and the demand for most owner-occupied housing goes down. But where can the additional homes for rent come from? More buy-to-let investors need to enter the market and rent out additional properties. But in order to entice new investors into the market, rents will have to go up. This is particularly so when we acknowledge the underlying heterogeneity of prospective investors. Those who stayed out of the market under the old regime typically did so because they were more constrained and their resources were less liquid than was the case for the incumbent landlords and so only greater compensation will draw them into the market.<sup>[4]</sup>

In parallel, the total amount of demand from households for housing – adjusted for quality – also decreases. This tends to reduce house prices, but not enough to offset the welfare effects of tighter credit.

The would-be buyers still need somewhere to live and someone must own that property.<sup>[5]</sup> Accordingly there is a shift from owning your own home to renting and a concentration of housing ownership among the rich. However, this does not affect aggregate house prices, but rather the wealth distribution.

## How limits to mortgage credit impact house prices and rents

We study these effects quantitatively in Castellanos, Hannon and Paz-Pardo (2024) by analysing a credit shock due to a borrower-based macroprudential intervention. We look at borrowing limits similar to those imposed in Ireland in 2015, namely a minimum 20% downpayment and a loan-to-income ratio of 3.5. The 20% limit implies that a household with financial savings of €100,000 can borrow a maximum of €400,000, while the loan-to-income ratio of 3.5 means a household with an annual gross income of €100,000 can only borrow up to €350,000.<sup>[6]</sup>

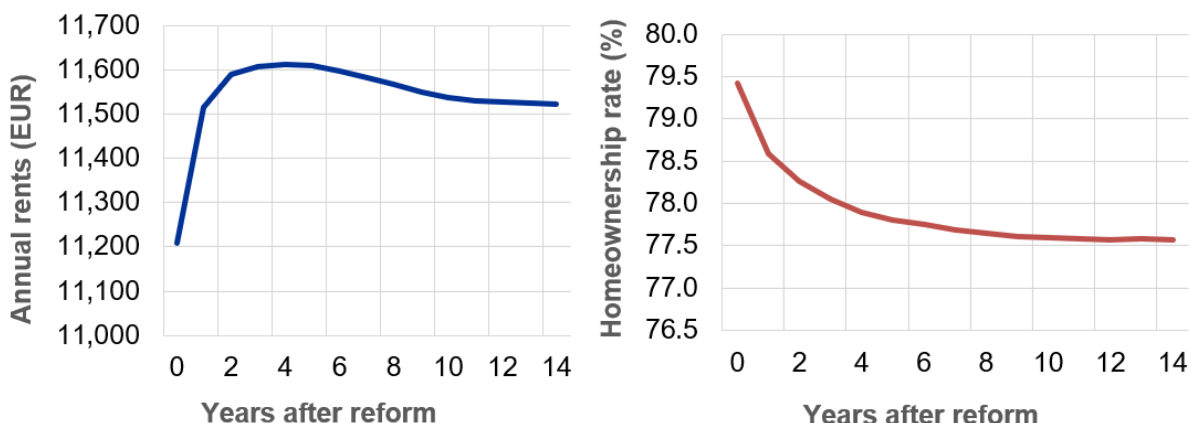
Using a life-cycle model of homeownership where house prices and rents are determined by relationships within the model (i.e. endogenously), we find that these borrowing limits increase rental prices. They are 4% higher four years after the intervention, with a new stable equilibrium level of rents that is 3% higher (Chart 1). By contrast, house prices are virtually unchanged, dropping only very slightly (-0.01%). The homeownership rate decreases substantially, by around 2 percentage points – and, as a result, the ownership concentration in the housing market increases.

These model implications are consistent with our empirical findings that the areas in Ireland in which the limits were most binding not only saw larger reductions in house prices, but also larger increases in rents.

<sup>[7]</sup>

## Chart 1

Evolution of annual average rents (left) and homeownership rates (right) after the mortgage credit reform



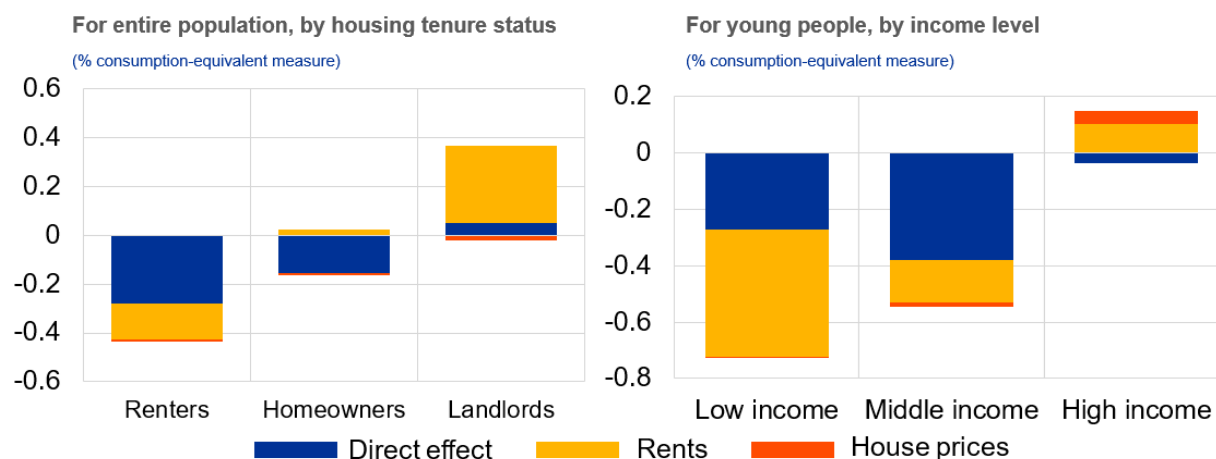
Sources: Authors' calculations using the structural model in Castellanos, Hannon and Paz-Pardo (2024) calibrated to Irish data and the 2015 macroprudential reform in Ireland.

These changes in financial constraints, rents and house prices impact different households in different ways. As Chart 2 shows, the biggest losers are those who are not currently homeowners and will need credit to access homeownership. They are mostly young households in the lower or middle part of the income distribution. While the reduced access to credit lowers welfare substantially, higher rents have an even larger negative welfare effect on low-income households. In contrast, households who already own their homes are largely unaffected by the reform, while owners of rental properties benefit.

In our results, the drop in house prices as a result of the reform is small because relatively few households choose to downsize and so the aggregate housing stock is mostly unchanged. Alternative versions of the model can generate stronger downsizing reactions, implying that more lower-quality houses are built and that house prices drop more, but it is not enough to offset the direct effect of the tougher credit limits and higher rents on tenants and younger households. <sup>[8]</sup>

## Chart 2

### Welfare impact of mortgage market regulations



Sources: Authors' calculations using the structural model in Castellanos, Hannon and Paz-Pardo (2024) calibrated to Irish data and the 2015 macroprudential reform in Ireland.

Notes: Welfare is expressed in terms of a consumption-equivalent measure, i.e. how much consumption households are willing to give up in order to avoid experiencing the limit (if negative) and how much extra consumption they are willing to accept in order to avoid experiencing the reform (if positive). Low-income households are defined as the lowest 15% of the income distribution in the 26-30 age group, high-income households as the top 15% and the remainder are classified as middle income. Note that these calculations do not include gains from increased financial stability.

## What about higher interest rates?

We also study the effect of an unexpected increase in the real interest rate, in order to capture the direct effects on the housing market of a monetary policy rate hike. Overall, we find similar effects to those of the tighter credit limits: rents rise, house prices go down and homeownership rates drop. However, there are a few important differences. First, the rate hike makes saving in financial assets more attractive relative to investing in housing. As a result, rents need to go up even further to keep small housing investors in the market. Second, higher interest rates also make it easier to save for a downpayment, though we find this effect is minimal so tenants are still worse off. Third, this shock reduces the welfare of current borrowers, if their mortgage has a variable rate, as well as that of would-be mortgagors.

These results suggest real interest rate rises have a direct impact on rents that can dampen the cooling effect of monetary policy on inflation as measured by the Harmonised Index of Consumer Prices, as rents form a part of households' consumption baskets.

We also study the differential impact of an interest rate increase with and without macroprudential credit limits in place. We find that house prices and rents react less to higher interest rates if credit limits are in place, which confirms that macroprudential measures help to curtail the transmission of shocks to and from the housing market.

## Conclusion

We find that shocks that reduce households' access to mortgage credit, including both macroprudential borrower-based limits and increases in the real interest rate, negatively impact lower-income and/or young households. Not only can these shocks close the door to buying a home altogether, they can also increase the rents – in equilibrium – that tenants have to pay.

The ECB is a strong supporter of macroprudential tools in the housing market, and several national central banks in the European System of Central Banks have introduced borrower-based measures similar to those that we study in Ireland. Although further work is needed to compare the negative impacts we describe with the benefits from increased financial stability, we argue that policymakers should take the costs of these policies into account, including both macroprudential authorities, when designing and calibrating these tools, and fiscal authorities, who could appropriately adjust fiscal instruments to minimise their unintended distributional consequences.

In general, our results highlight the multifaceted nature of the housing affordability crisis. In the long run, excess profits to be made in the housing and rental markets should boost construction and letting activity, compensating for short-run credit fluctuations. But pervasive barriers to increasing the housing supply in many countries and cities might frustrate this. As a result, credit constraints may turn out to matter for longer – especially for younger or lower-income households.

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2.

Kouvavas and Rusinova (2024) provide a detailed overview of the latest evolution of housing costs in the euro area for households with different housing tenure status.

3.

These benefits have been established in several studies, from the academic literature in the post-global financial crisis period, such as Lambertini, Mendicino and Punzi (2013) or Farhi and Werning (2016), to recent reviews of the macroprudential frameworks, see for instance Lo Duca et al. (2023).

4.

In Ireland, data from the Residential Tenancies Board show most of the rental stock is owned by relatively small investors who own just one or few properties, similarly to other European countries.

5.

There are exceptions to this reasoning. For example, an additional channel, which we do not explicitly study, is that people might react to the shock by delaying the formation of households, for example by staying longer at their parental homes.

6.

However, the Irish policy incorporated exemptions to mitigate its negative impacts: the downpayment requirement was reduced to 10% for first-time buyers and banks had additional discretion to grant up to 15% of their loans outside of the limits. Additionally, the loan-to-income ratio was raised from 3.5 to 4 for first-time buyers in 2023.

7.

Acharya et al. (2022) use the heterogeneous geographical impact of the reform in Ireland as a way of identifying its effects on house prices, and conclude that house price growth is comparatively lower in areas in which the reform had stronger effects. In Castellanos, Hannon and Paz-Pardo (2024) we replicate their analysis with rents and find that in those same areas in which house prices grew less, rental rates increased more.

8.

Van Bakkum, Gabarro, Irani and Peydró (2024), studying a loan-to-value regulation for mortgages in the Netherlands, find empirically that households reduce leverage mostly by reducing their cash balances, and to a lesser extent through buying cheaper houses.

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