Summary: Empirically, this paper follows the methodology of Acharya, et al (JF 2022) to study a tightening of lending standards (LTV and LTI) in Ireland in 2015. Acharya, et al show that this caused prices to fall more in more affected areas. The paper under review shows that unlike prices, the tightening caused rents to rise. The paper then builds a model with owners and renters, with the model's key feature being a cost of converting rental to owner-occupied housing, and vice versa. In such a model, a tightening of lending standards is likely to lead to lower prices and higher rents – as in the data – because (due to the conversion cost), supply of rental housing is upward sloping in the rent/price ratio. They calibrate the model to Ireland and use the model to study two different shocks: i) a tightening of LTV and LTI, ii) an exogenous increase in interest rates. Both shocks lead to a fall in prices, and home ownership but an increase in rents.

Opinion: I like the idea of the paper, however given the existing literature I am not sure it meets the high bar of the AER. Having said that, I do encourage the authors to revise the paper and I think it should be published in a good econ or finance journal. I provide comments and suggestions below that will hopefully strengthen the paper.

I'll start with the negative. On the empirical side, Gete and Reher (RFS 2018) already document that rents rise after a credit expansion using U.S. data. Appendix table B.1 in Greenwald and Guren (2024) also has a similar result (though not statistically significant). While there is value in confirming important findings in alternative settings, I think their results set the bar higher for a paper that does something similar. On the modeling side, while some of the modeling details are different from Greenwald and Guren (2024), my intuition is that the key mechanism is identical in both models – there is a cost of switching supply from rental to owner-occupied or vice versa. I conjecture that in that model, rents also go up after a contraction (they do not report rents, but Rent/Price goes up after a contraction). Despite this, I think it's a nice paper. I propose several ways to strengthen it.

1) Empirics: I think you could add value by showing that your key finding – rents going up (down) after a credit tightening (expansion) is a robust finding that happens in various settings. You could do this by following Greenwald and Guren's strategy. They use three different IVs for credit shocks that have been previously used in the literature: Loutskina and Strahan (JFE 2015), Di Maggio and Kermani (RFS 2016), Mian and Sufi (RFS 2022) to check how a credit expansion affects house prices and home ownership. You could do the same for rents. Perhaps you could identify even more similar IVs. I think there would be a lot of value in showing that this effect exists and how strong it is across settings.

A separate thought I had: How quickly do rents rise after a credit contraction? If it's a slow reaction, maybe it has more to do with aggregate supply growth slowing due to lower house prices rather than the channel you have in mind?

2) Model: My overarching comment is that the model is more complicated than necessary and there would be value in simplifying it. I think you would get similar results but it would be more transparent.

2A) I don't understand the purpose of different housing qualities, especially if their prices all perfectly scale. For example, in Landvoigt, Piazzesi, Schneider (AER 2015) there are different qualities, but their relative prices change with the local supply/demand for each. I guess this is to have renters and owners? But I believe you could do this in a simpler way by having a single housing type and a utility preference for owning. In this case, people with high expected income growth and low current wealth will choose to rent because they cannot meet the LTV and LTI requirements. In fact, you already have the utility boost theta. Furthermore, since there are just two property types, is there any difference at all between your model and one where there is simply a preference for ownership in the utility function and one type of housing? I conjecture that not really.

2B) I find the way you model depreciation cumbersome and I doubt doing this is important for your result so you should simplify. Why not just have a single type of depreciation delta_{h}, that is get rid of 1/J?

2C) Do you need the housing transaction costs? I agree that housing is illiquid and transaction costs are realistic, but if they are not central to your model's results, I think you may be better off getting rid of them to make it easier for the reader to understand what is going on in the model. Same for housing quality types.

2D) The effect on prices is surprisingly small. For example, Greenwald and Guren have a much larger effect of credit conditions on prices in a model that should have the same key features. I don't fully understand what is going on.

I think one thing that might be driving this is the assumptions on the functional form of construction firms, combined with there being no risk, and a constant housing supply is constant. This is what allows you to have an analytic solution for the house price as a function of just quantity of housing and housing sector productivity Ah. I suspect this drives some of the results. For example if the return on housing must be equal to r, and if pH is fixed, then rent must rise when r rises. But in alternative specifications, you might get rent staying constant and pH falling instead. For example, imagine a very simple model where housing expenditures are always a fraction alphaH of income, income is constant, and there is no depreciation. Then rent is constant and the house price is simply PV of future rents, which falls when rates rise. Furthermore, equation 20 would be different if the housing stock was changing. In that case d_{h}*H would be replaced by d_{H}*H+(Hnext-H) so if interest rates are rising and investment in housing becomes less attractive, the housing supply will fall, this quantity would be smaller than d_{H}*H, and the price would fall as well.

2E) The interest rate rising experiment.

2E.i) When interest rates rise, why does rent rise instead of prices absorbing everything? For example, consider a model where rates have no effect on supply / demand and therefore on rent. In this model, the price is the present discounted value of rents, and it would fall, absorbing 100% of the rate rise. Consider a more complicated model where rent is determined

by supply/demand. Supply is unchanged in short run. Demand will rise or fall depending on whether income or substitution effects dominate. Thus, the change in rent will fully depend on whether IES is above or below one (I solved a simple 2-period model and confirmed this).
2E.ii) What causes the rise in rates? The effect on endogenous quantities may differ depending on the reason for the rise. Is this a sufficiently interesting experiment? I think for an open economy like Ireland its fine, for the US maybe not

2F) Calibration
2F.i) Living with certainty until age 95 seems unrealistic. You should have a shorter lifespan or a probability of death.
2F.ii) You are targeting a rental supply elasticity of 1.4, but you get 3.5. I don't understand why you miss by so much. I presume that the higher the cost of switching from owner-occupied to rental, the lower the elasticity will be. I didn't see this parameter discussed anywhere. So all you need to do is raise that cost. Or maybe I am missing something.

3) Exposition

3A) Through at least the end of section 2.3, it is unclear to me if you have aggregate shocks in the model or not. I think you do not, but you should clarify. If you do not have aggregate shocks, then Ac and Ah are constants and you do not need both of them, or maybe you need neither, in either case you should specify that they are constants.

3B) It appears that the housing stock in the model is constant. In this case, you are confusing the reader when you talk about housing output being used for new construction. Related to this, I don't know how exactly you do the MIT shock transition. However, if you are using equation 20 then you have a mistake. This is because equation 20 is derived by assuming that construction demand is just equal to depreciated capital, which is not true when the housing stock is changing.

3C) There is no difference in housing size, just quality. This is explained in the housing choices section on pg 10, however it would have been helpful to at least mention earlier (when you introduce quality) that there is no size. I was confused and trying to figure out how housing works between pages 8 and 10. You talking about price per square foot on pg 8 made this extra confusing.

3D) I am confused by the utility function for housing. You write f(h,h_hat) where h is houses owned, and h_hat is the house you live in, but then when you define f(h,h_hat) in equation 10, it seems to not depend on h, only h_hat – this makes sense utility should not depend on the kinds of investment assets you own. So if I am understanding this correctly, you should just write f(h_hat).

3E) You introduce depreciation on pg 8 and then basically repeat yourself on pg 10, I suggest deleting this on pg 10

3F) footnote 2 mentions that the LTV and LTI constraints may potentially be different for first time buyers vs investors. I don't know about Ireland, but in the US, the mortgage interest investors pay is typically much higher than owner-occupiers, so if you allow LTV and LTI to differ, kappa should differ to. Having said that, I am encouraging you to simplify the model to the simplest you can get that still delivers the result, so I am by no means insisting you add all these differences to the baseline model. Perhaps you can have an appendix model where everything is more realistic (differing kappa, LTV, LTI; transaction costs; different house qualities …)

3G) The intuition in section 2.4 is wrong. You write that an increase in the rent/price ratio shifts landlords' curve up. No! It shifts landlords up the curve (that's what a supply curve is, you supply more when the price is higher). It shifts the households' curve not because it changes prices, but because for the same price, renting becomes more attractive.

3H) You make a point of your model having endogenous landlords, etc. However, this is less of an innovation than you let on. Your model isn't quite GE or PE because the housing market clears but the interest rate is exogenous. Since there is no risk, landlords must earn r on their real estate investments. This means landlords are indifferent about investing in real estate or in liquid assets. So it doesn't matter whether you model endogenous landlords (as you do) or if you had an alternative model where households only have access to a liquid asset and all landlords are outside of the model, as long as the rate of return on housing is r, I conjecture you will get exactly the same result.

3I) In intro, I don't understand their explanation ii). If everyone moves to smaller properties, that will reduce rents and prices if there are no other frictions.