

[Monetary Transmission in a HANK Model with Housing and Rental Sectors](#)

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The Question

When the central bank raises interest rates to control inflation, what happens to house prices and rents? And why do these two prices behave so differently? This is an important question because housing costs affect everyone, and understanding these dynamics helps policymakers make better decisions.

What We Found

Using UK data from 1997-2023, we discovered a striking pattern:

- **House prices fall substantially** after an interest rate rise – dropping about 6% after 16 months in a gradual, hump-shaped pattern
- **Rents barely budge** – staying flat or even rising slightly for about 2 years

This divergence is puzzling because economic theory suggests both should move together. After all, if house prices fall, shouldn't it become cheaper to buy property and rent it out, leading to more rental supply and lower rents?

Why This Happens: The Role of Expectations

We built a sophisticated economic model to understand these patterns. The key insight is that **people don't have perfect foresight about future prices.**

When interest rates rise:

- House prices start falling, but homeowners and potential buyers don't fully realize prices will stay low for a while
- This "sticky" thinking makes people more willing to buy or hold onto property today than they would be if they perfectly understood the future

- As a result, house prices don't fall as much initially, creating the hump-shaped pattern we see
- The relatively higher house prices mean buying property to rent out doesn't become attractive enough to flood the rental market with new supply
- So rents stay flat despite higher interest rates

Who Provides Rental Housing Matters

A crucial finding is that **individual private landlords** (who own 94% of rental properties in the UK) might behave very differently from large commercial property companies:

- If Private landlords have the same imperfect foresight as other households they fail to fully pass through the higher yields they should demand to renters
- This incomplete pass-through means landlords actually *lose out* from interest rate rises

When we simulate the model with rational commercial landlords instead, rents jump much more sharply, consumption falls harder, and the economic "sacrifice" needed to control inflation roughly doubles.

The Silver Lining for Monetary Policy

Surprisingly, the fact that private landlords don't fully pass through interest rate rises to renters actually **helps central banks** fight inflation:

- The muted rental price response reduces the consumption hit to renters (who tend to spend more of each pound they earn)
- This creates less variation in consumption across different housing tenure types
- It reduces the economic pain needed to bring inflation under control
- The "sacrifice ratio" (output loss per unit of disinflation) is about half what it would be with rational commercial landlords

What About Other Housing Market Features?

We tested several other factors that might explain our findings:

- Endogenous housing supply
- Segmented rental markets
- Sticky mortgage rates
- Search frictions in finding buyers

While all these push house and rental prices in certain directions, **none can generate the hump-shaped house price response without behavioural frictions.** Under standard "rational expectations," house prices always fall most immediately after the interest rate rise, which doesn't match what we see in the data.

The Bottom Line

Understanding how housing markets actually work – with real people making decisions based on imperfect information – is crucial for monetary policy. The structure of the rental market (dominated by small private landlords rather than large firms) and behavioural frictions in how people form expectations are first-order considerations for central banks trying to control inflation while minimizing economic disruption.