Discussion of

“Macro Shocks and Housing Markets"

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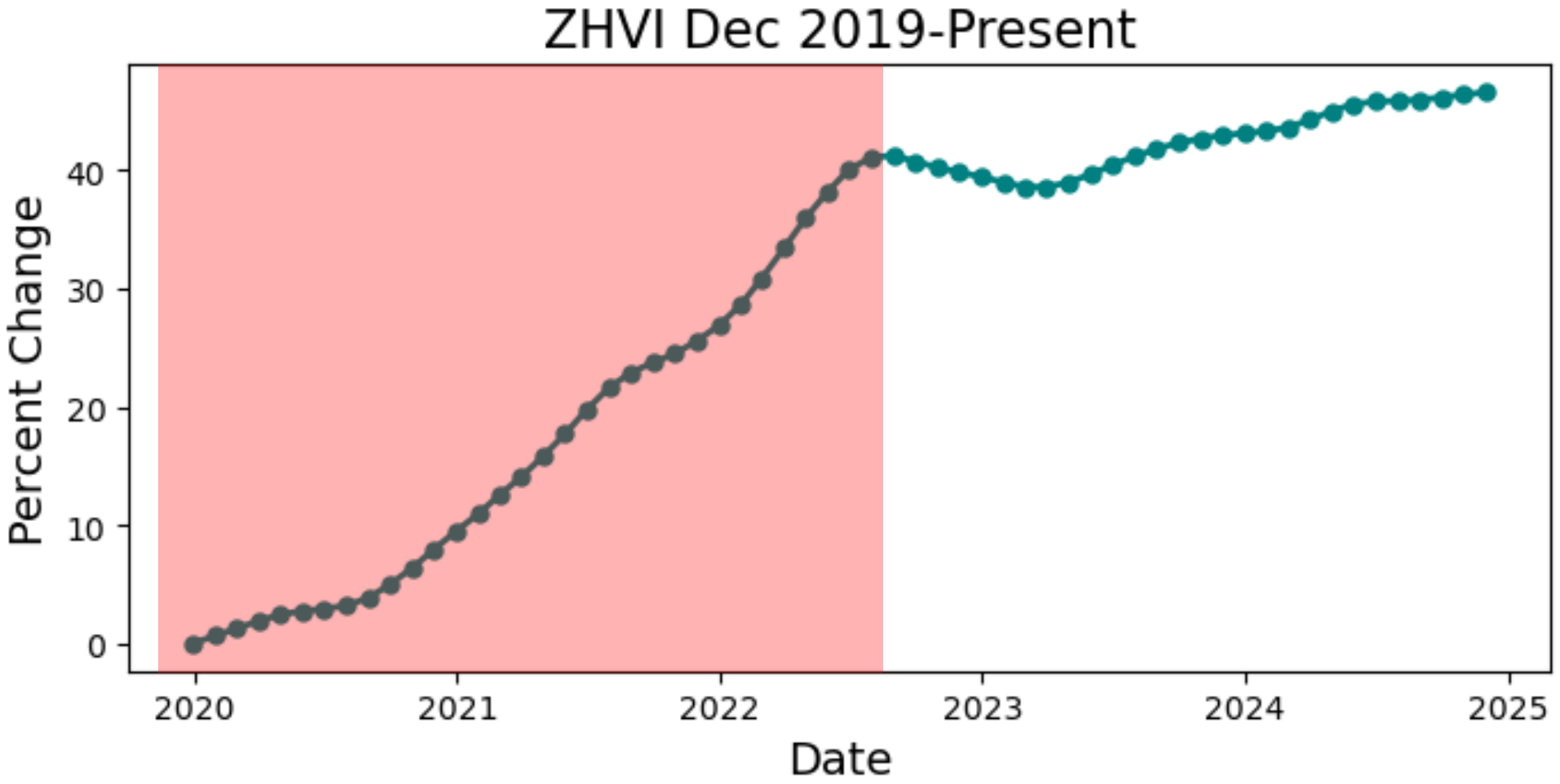
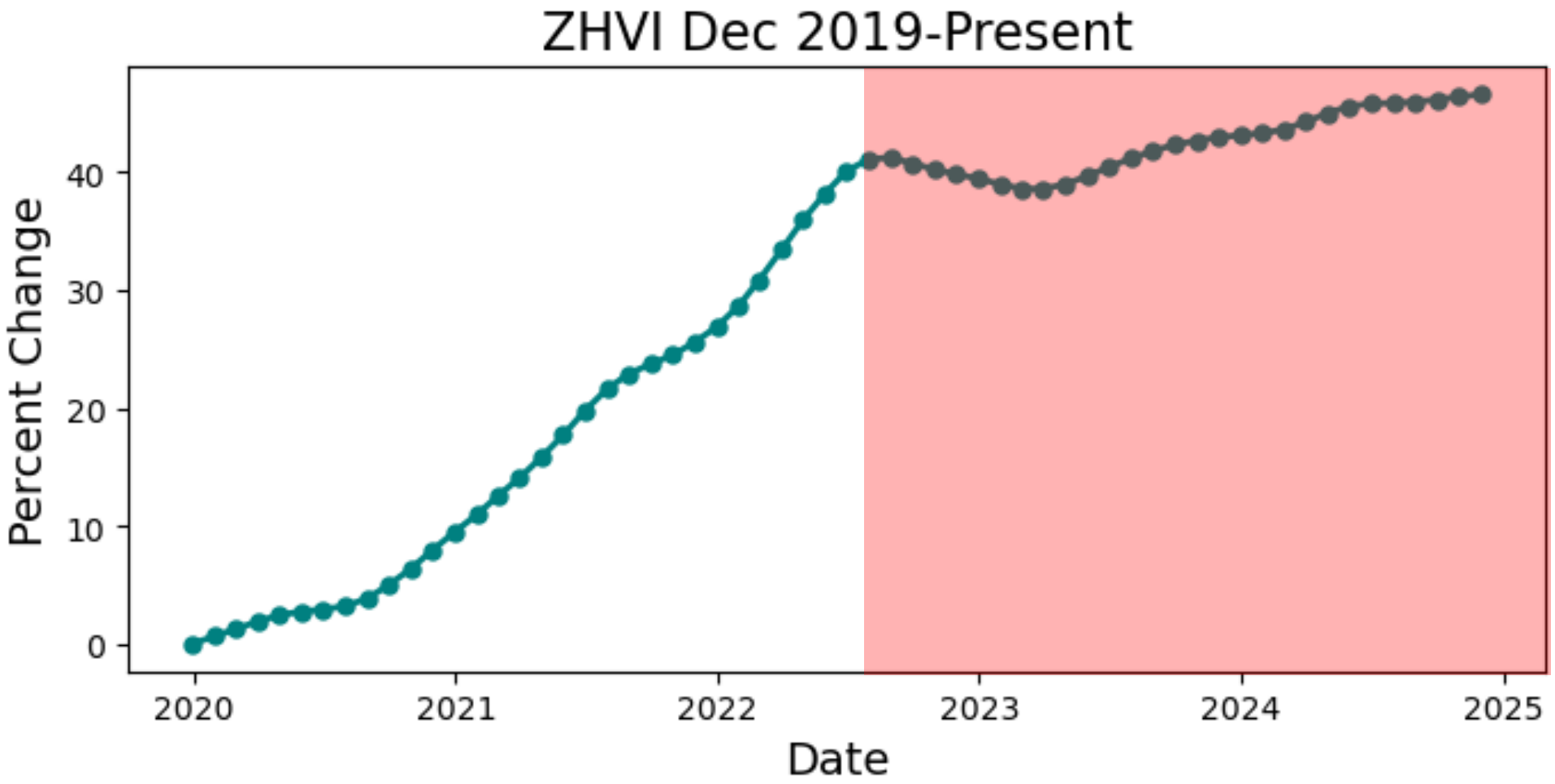
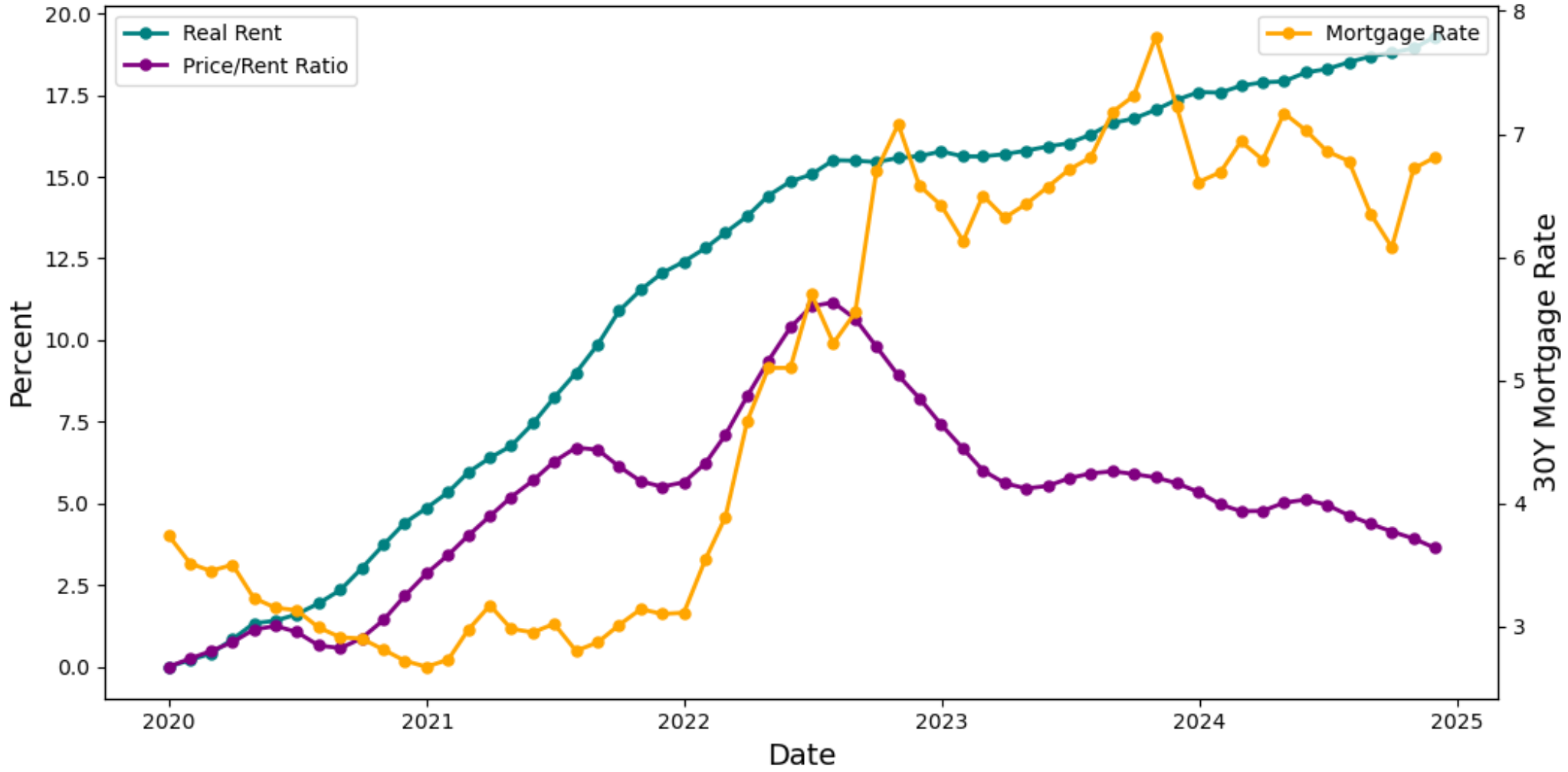
House Prices Have Increased 40% During/After Covid Pandemic



Haven’t Fallen Much If At All during Monetary Tightening



House Prices = Rent (User Costs) x Price/Rent Ratio



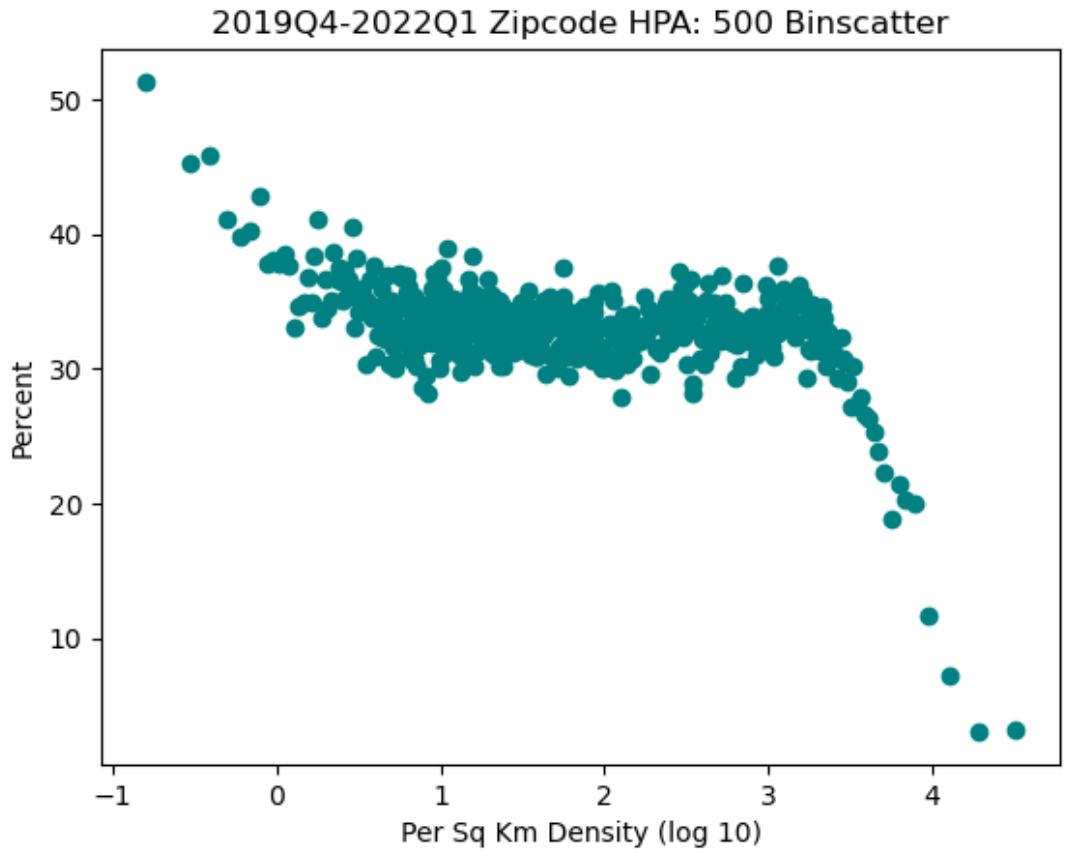
Explaining House Price Dynamics

- This paper: decompose house price dynamics over both episodes using a macro model with reduced-form frictions
- “Macro/urban” channels can explain changes in supply of and demand for housing services
- Can standard “finance” channels explain price-rent ratios?
  - Campbell-Shiller Decomposition
  - Future rent growth
  - Current and future discount rates

“Macro/urban” channels can explain run-up

- Demand: more disposable income due to Covid stimulus policies
- Demand: WFH and public health concerns increasing preference for housing relative to non-housing consumption
  - Preference for suburban, exurban, rural over urban housing?
- Supply: Covid-related disruptions in construction industry shifting supply in
- Supply: Zoning and related restrictions making supply inelastic

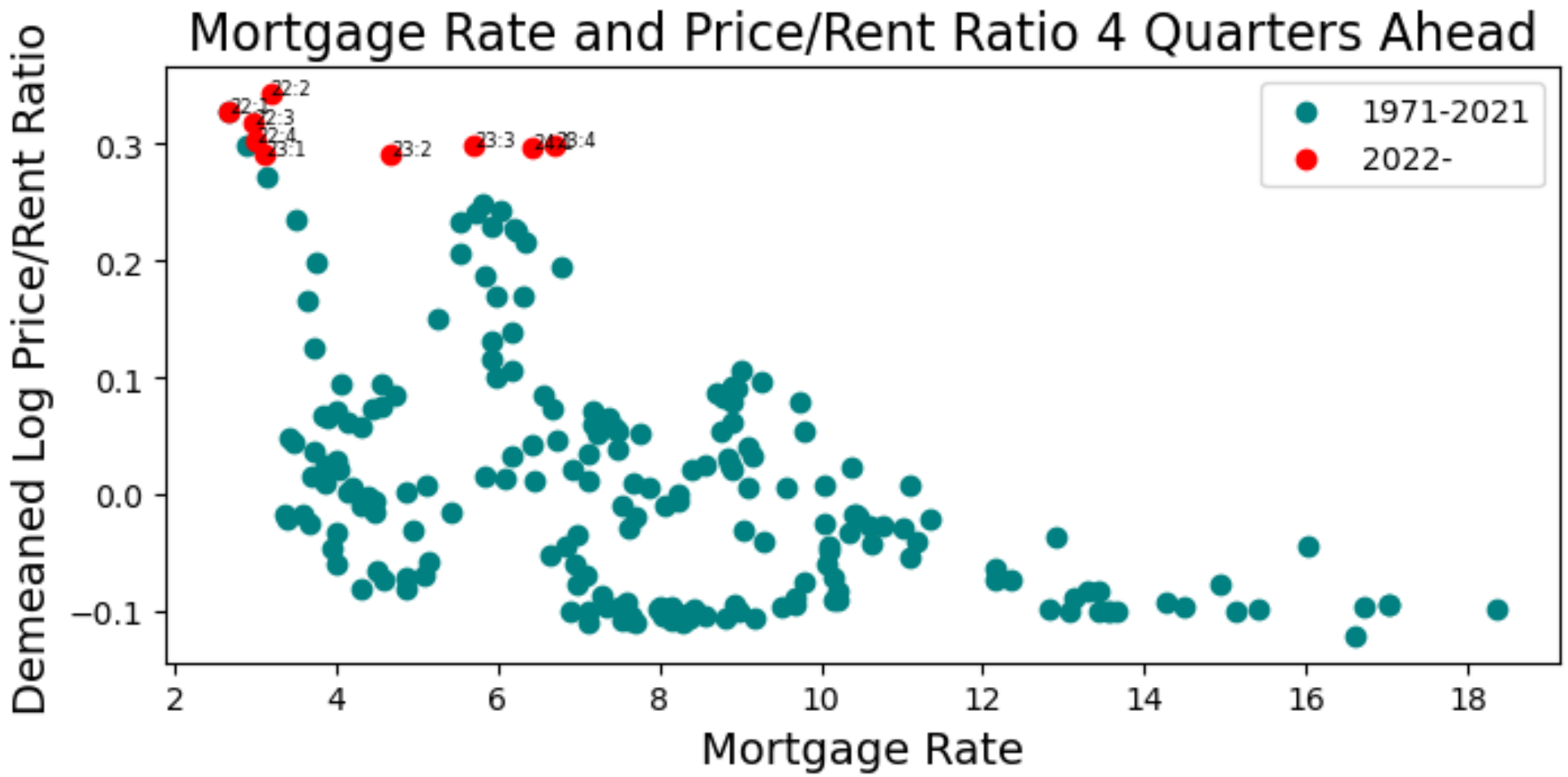
- Similar demand decomposition: Diamond, Landvoigt, and Sanches (2024)
  - Fiscal transfers + MP rate cuts + switch to “passive” MP + demand shock + housing preference shock



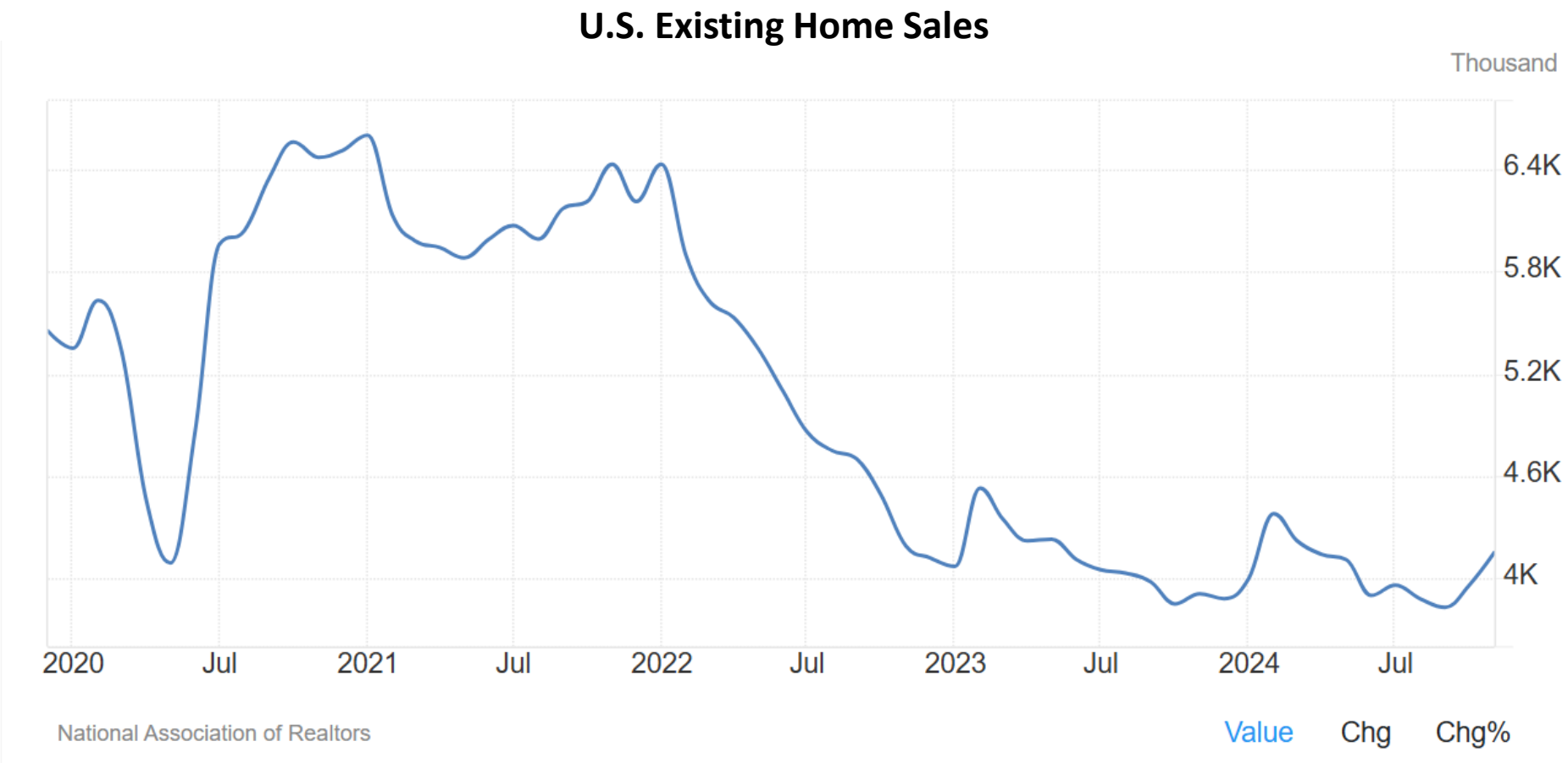
Can standard “finance” channels explain price-rent ratios?

- C-S Decomposition: future rent growth + current and future discount rates
- 400 bps increase in mortgage rates
- Back-of-the-envelope discount rate arithmetic:
  - Avg mortgage rate of 5% with annual persistence of 0.984
  - Annual depreciation of 2%
  - Increase in discount rates from 3% to 7% → 29% drop in price/rent ratios
- Actual decrease in price/rent ratios from peak: 6.8% → answer is NO!
  - Unless there was ex-post unrealized expectations of massive rental growth

Longer Perspective: This is Unusual

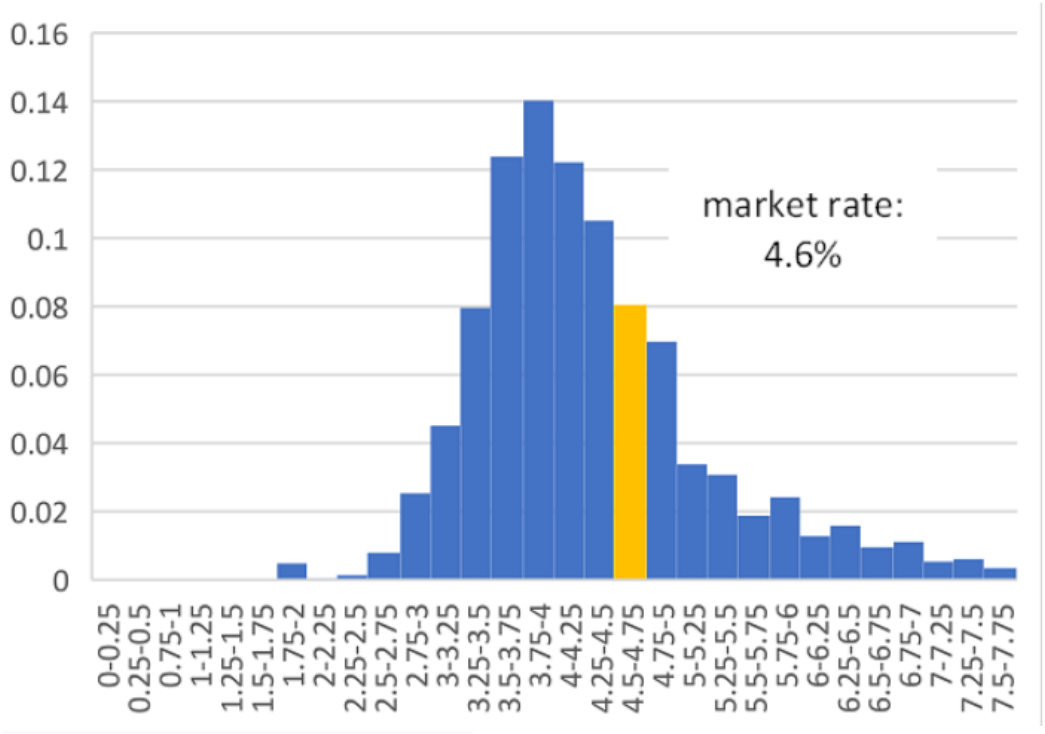


Home **buyers** and **sellers**, not home **owners**, price houses

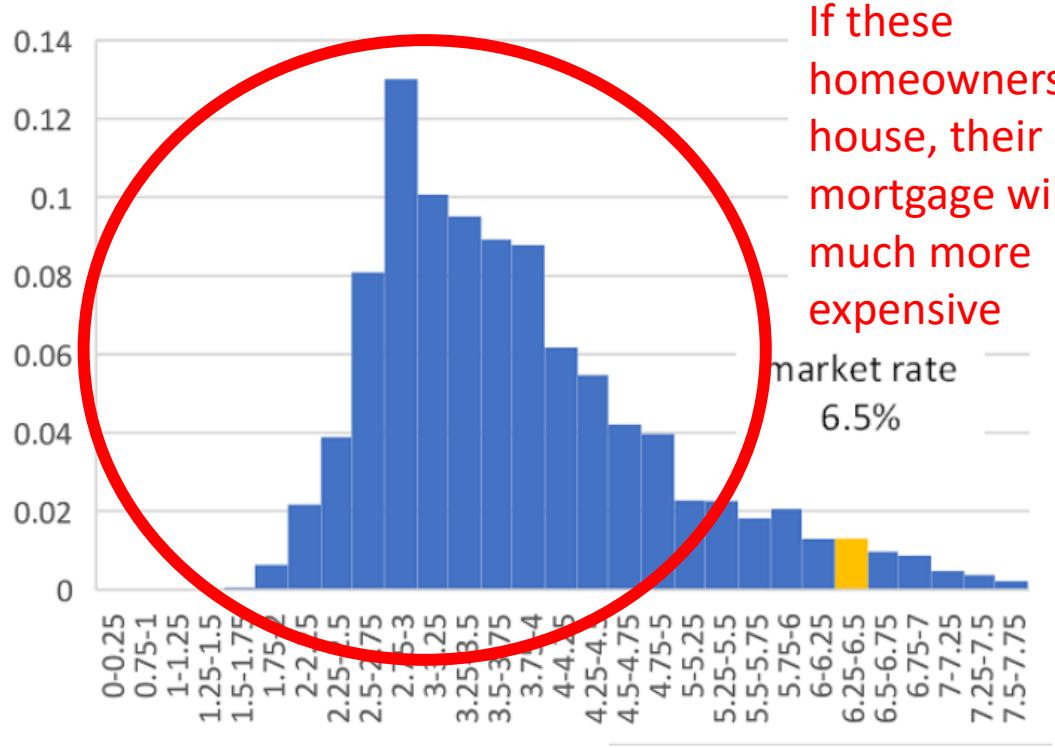


Most Existing Home-Owners “Locked In”

Outstanding Coupon Distro 2018



Outstanding Coupon Distro 2024



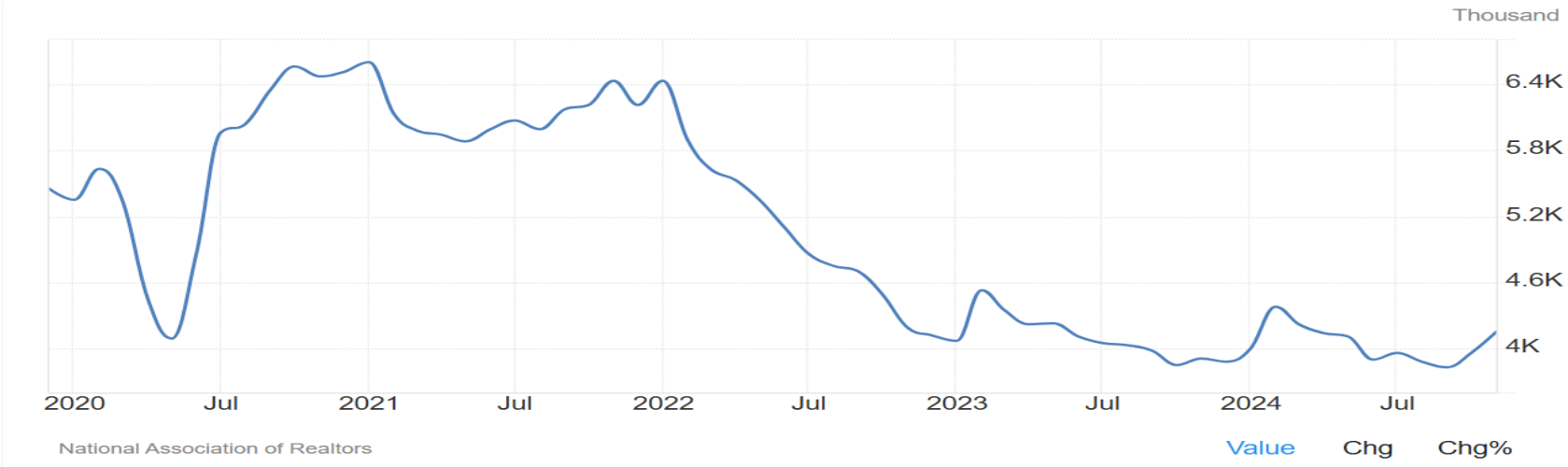
If these homeowners buy a house, their new mortgage will be much more expensive

Figure 6: 30-year fixed rate mortgage rate distribution

Can Higher Rates Prop Up House Prices?

- If they reduces supply more than they reduce demand, then yes
- One of the following must be true for higher rates to explain higher house prices
  - Existing homes extensive margin: more households unwilling to sell than unwilling to buy
  - New homes: reduced construction
  - Existing homes intensive margin: higher net demand of existing market participants

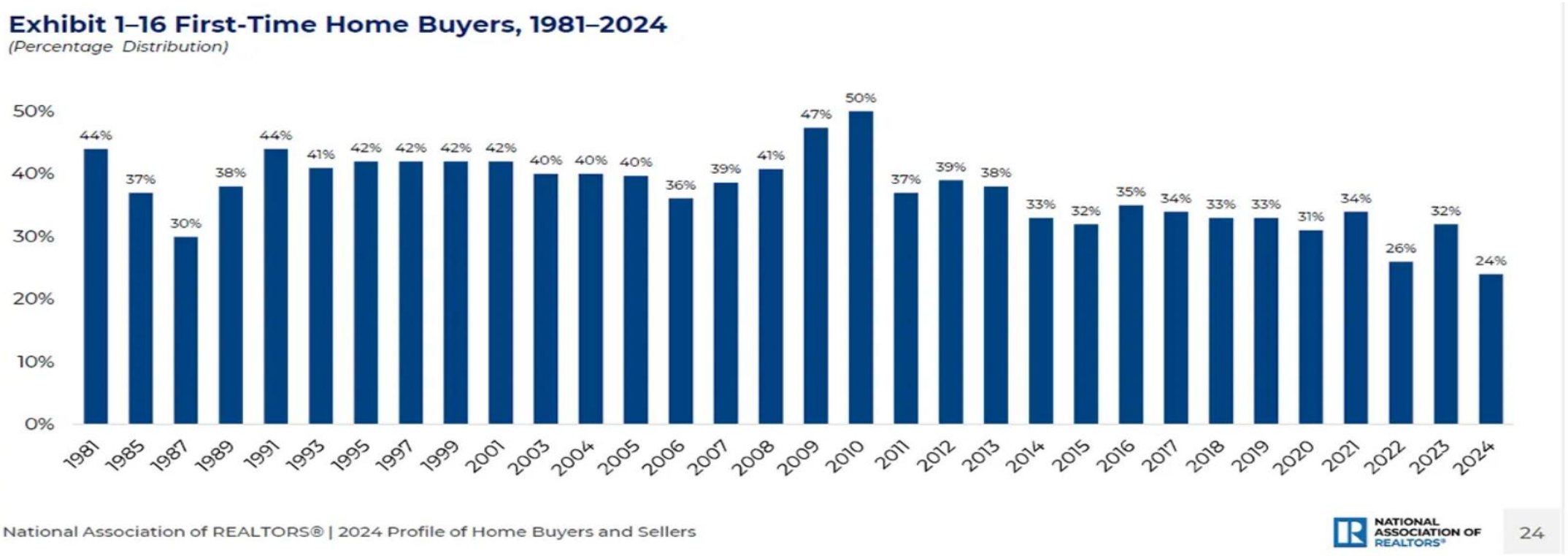
Extensive: fewer owners selling to move to a new house?



- Yes, affected by lock-in
- Don’t sell → lower supply
- Don’t buy → lower demand

} No net effect on prices ❌

Extensive: More first-time home buyers?



- Share of FTHBs fell even as overall demand fell (new mortgages are expensive!)
- Reduces demand → lower prices ❌

Extensive: fewer exits from homeownership?

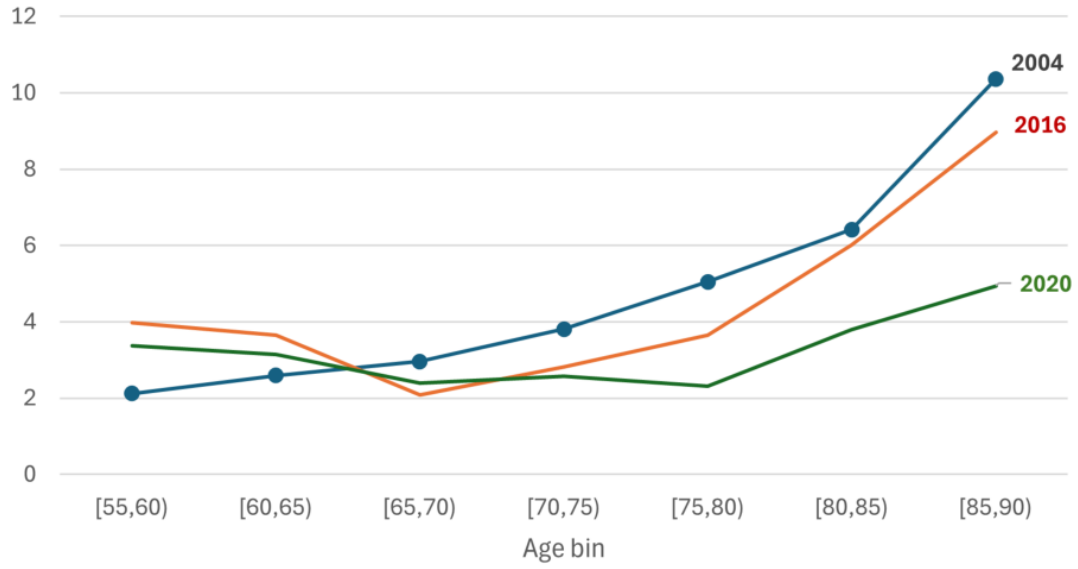


Figure 14: Exit Rates from Homeownership, by Age Group

- Indeed, older Americans stay in their homes much longer than they used to
- This reduces supply ✅
- But this has been happening before the rate hikes
  - Is it really the result of lock-in like the paper's reduced-form specification suggests?

$$\kappa_2\left(r_t^m\right) = \bar{\kappa}_2\left(1 - \iota\left(r_t^m - \bar{r}^m\right)\right)$$

New Homes: fewer being built?

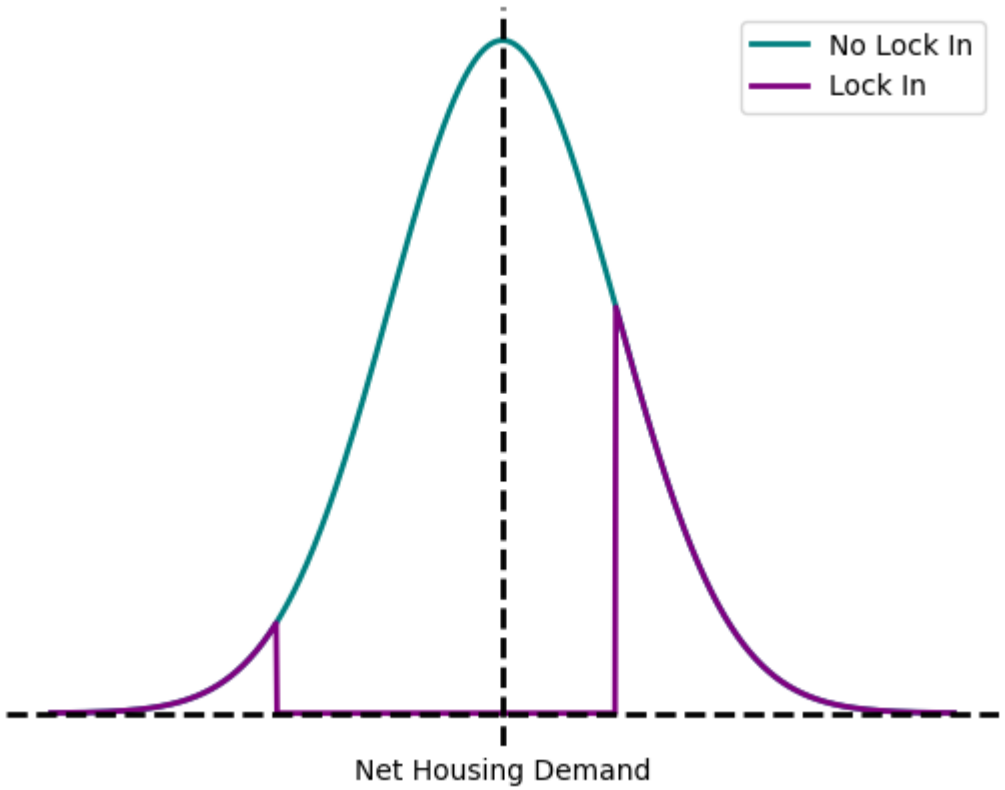
- Construction slowed down as rates went up (because home-builders' cost of capital went up?)
- This decreases supply ✅ (also increases the per-period cost of housing services, consistent with the data)
- Take-away: if home-builder discount rates are more sensitive to MP than mortgage rates, MP effect on house prices could be neutralized!
- But it's a rates → prices channel unrelated to lock-in

Intensive Margin

- "Lock-in" → "missing movers"
- Do missing movers systematically differ in their demand from present movers?
  - In the paper, no: $$H^e\left(p_t^h\right) = \left(\frac{\alpha_f^{\alpha_f}}{\delta^{\alpha_f}} z_t^h\right)^{\frac{1}{1-\alpha_f}} \left(p_t^h\right)^{\frac{\alpha_f}{1-\alpha_f}} \times \left[\rho_0 - \rho_1 (r_t^m - \bar{r}^m)\right],$$
  - But in practice, probably
  - And it would give "lock in" considerable equilibrium bite!
- Consider a hypothetical cross-sectional distribution of net housing demand at a given house price

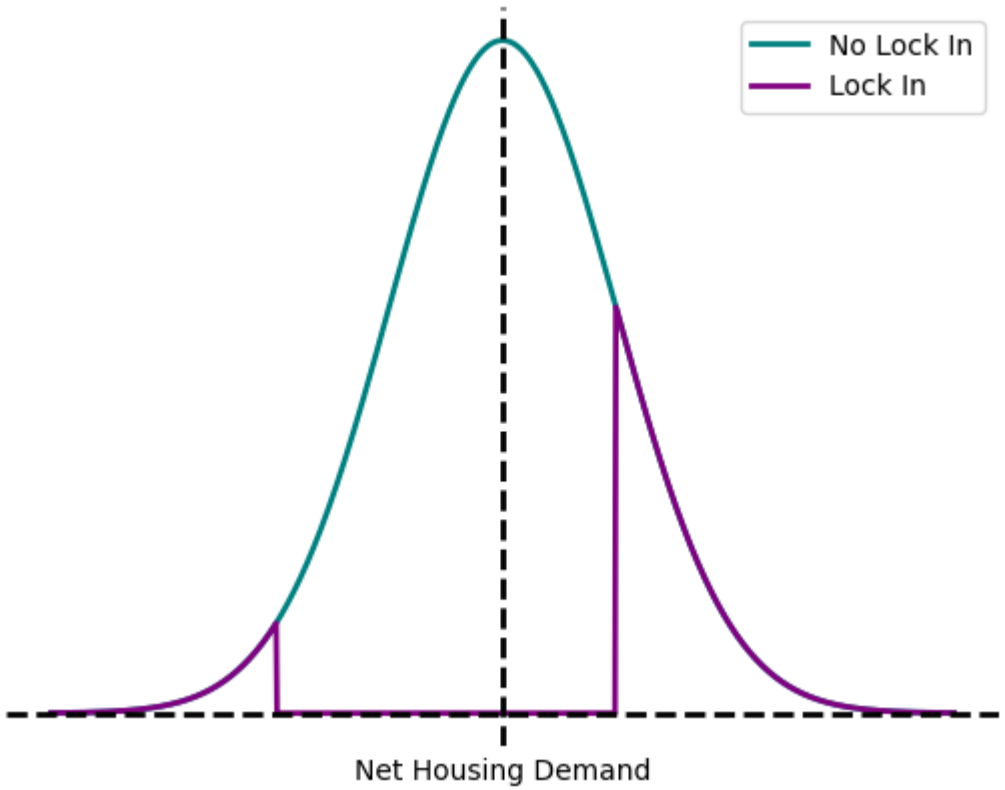
Hypothetical Distribution of Net Housing Demand

- When no one is “locked in” by a below-market fixed rate mortgage
  - Mass below 0 = Mass above 0
  - Market clears
- Lock-in → housing adjustment cost
  - Those with small net demand stay put → “missing movers”
- If distro of missing movers is asymmetric,
  - Mass below 0 < Mass above 0
  - House price needs to increase to restore equilibrium



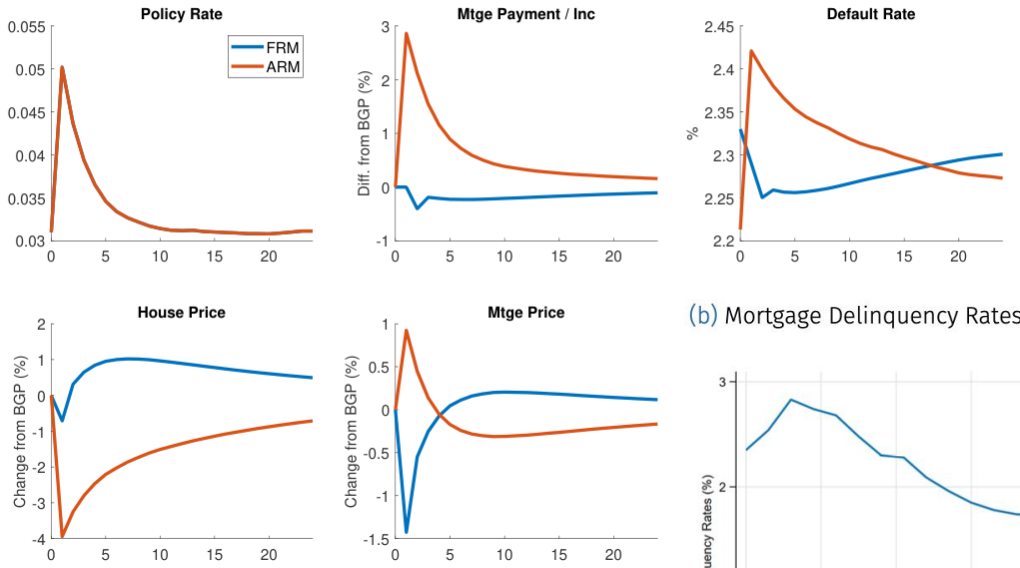
Why would most missing movers be downsizers?

- An example: income shocks + non-separable demand for housing & non-housing
  - income effect in housing demand
- Negative income shock →lower non-housing consumption → negative net demand (“want to downsize”)
- Downsizing would lead to relatively higher mortgage payments
  - In high MU states
- *(I have a model worked out to show this formally…)*

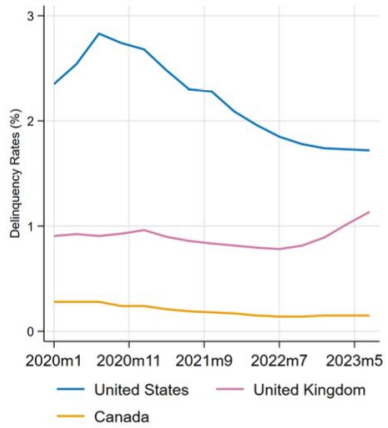


How else can higher mortgage rates prop up house prices? Default

IRFs to Positive Rate Shock



(b) Mortgage Delinquency Rates



From [Elenev and Liu (2024)]

- "Lock in" increases opportunity cost of losing existing mortgage
  - By moving
  - But also by defaulting
- Positive rate shock in economy with FRMs →
  - Lower default rates
  - Lower default-adjusted housing discount rates
  - Much smaller drop in house prices than in economy with ARMs
  - Even with all households repricing houses every period

Summary

- Great paper: transparent, quantitative decomposition of house prices boom and lack of bust over 2019-2024
  - 2020-22: increase in disposable income, low rates, higher preference for housing (consistent with existing literature)
  - 2022-24: flat-ish prices despite rate shocks a puzzle, mortgage lock-in by itself does not sufficiently prop up house prices, need decline in rate of exits from homeownership
- Speaks to questions of monetary policy transmission effectiveness and housing affordability
- My main comment: richer household heterogeneity + mortgage defaults give lock-in a bigger role