Research and the Community:

A Virtual Seminar Series with FRS Advisory Council Members

February 19, 2026
3:00 pm ET/2:00 pm CT/1:00 pm MT/Noon PT/11:00 am AKST

Research presentations and discussion on housing by Federal Reserve researchers
- **Erik Hembre**, Federal Reserve Bank of Minneapolis
- **John Mondragon**, Federal Reserve Bank of San Francisco
- **Lauren Lambie-Hanson**, Federal Reserve Bank of Philadelphia

Fed Communities

Ways to continue the connection

Share your feedback on this seminar format.
- Survey input will help us plan two more seminars in 2026.
- We'll send an email next week with links to the research papers, event video, and related resources.

Join us at NCIC.
- Hundreds of community development professionals will convene March 23-26 in Phoenix, AZ.
- Agenda sessions on public-private partnerships, CRA, small business access to credit, and more.
- Community advisory council members invited to lunch with Governor Michael Barr March 24.

Connect with our research(ers).
- Find much more Federal Reserve housing research online.
- Have a follow-up question for Erik or John? Email fedcommunities@clev.frb.org.

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- We have research, data tools, and stories from around the nation.
- Our calendar has events from all 12 Reserve Banks and the Board.
- Locate a community development expert using our Expert Finder.

Fed Communities
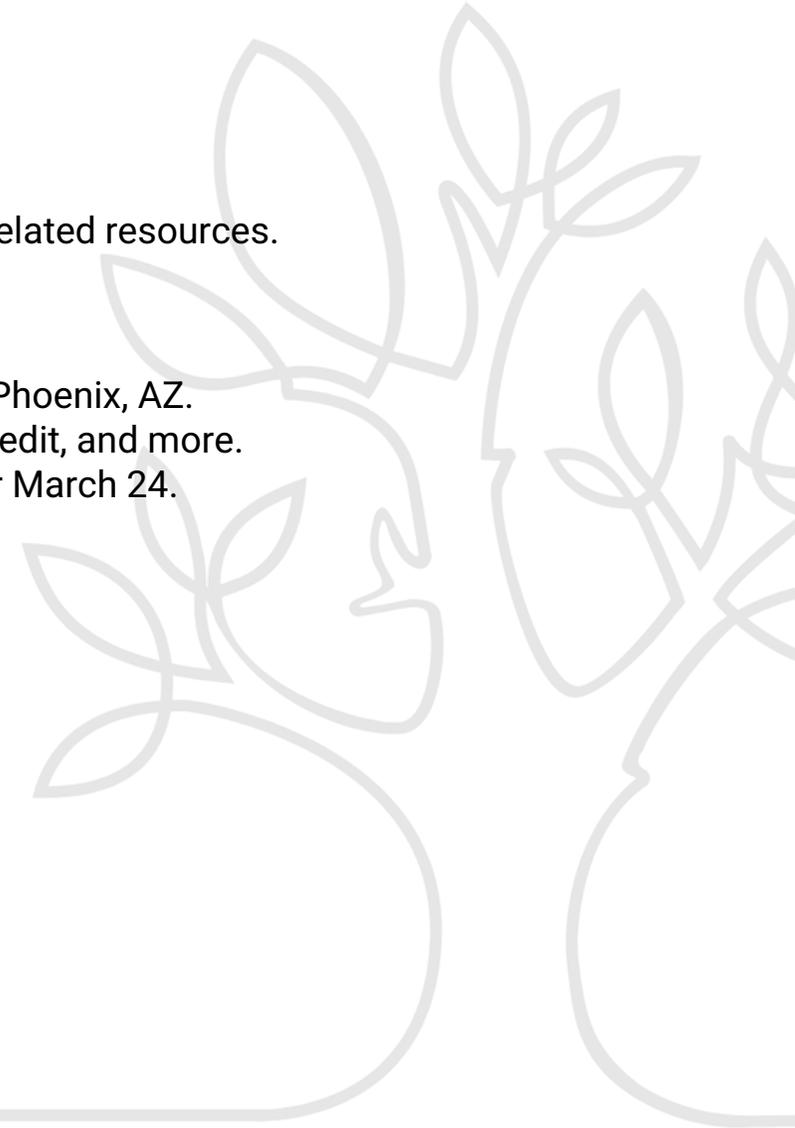
A Rising Tide Lifts All Homes?
Housing Quality Improvements for Low-income Households Since the 1980s

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J. Michael Collins University of Wisconsin-Madison
Samuel Wylde University of Illinois-Chicago

February 17, 2026

Disclaimer(s)

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Introduction

- Research Question:
  - How has housing quality (and quantity) changed for low-income households since 1980s?

Data

American Housing Survey (AHS)

- 1985-2021 (biennial) panel of housing units
    - ~60,000 observations per survey
    - Detailed housing characteristics, expenses, and household attributes.
    - Two groups: Social Safety Net Recipients and Bottom 20% of Income Distribution
        - Safety Net: SSI, TANF/AFDC, or SNAP

Data

- (Poor) Housing Quality measurement
  - We use 35 indicators for poor quality
  - Focus on (relatively) consistent variables across a range of categories
  - (No measures of medium/high quality)

Data

- Poor Quality Housing Variables:
  - Exterior Features (Sagging roofs, water leaks, ...)
  - Interior Features (rodents, peeling paint, floor holes,...)
  - Appliances/Plumbing/Electrical (sewage breakdowns, blown fuses, no running water)
  - Neighborhood (bars on windows nearby, trash or litter nearby, ...)

Data

- Poor Quality Index (PQI) is an average of the 35 z-scored poor housing quality indicators, Q_i:

$$PQI = \sum_{i=1}^{35} Q_i$$

- Higher value $\Rightarrow$ worse quality
- *Poor Quality* := ($PQI \geq$ 90th Percentile)
- *Good Quality* := ($Q_i = 0 \; \forall \; i$)

Data

- Housing Quantity Variables:

Variable	Description	Variable Mean
Basement	Basement	.31
CentralHeat	Central Heating	.93
bathrooms	Bathrooms	1.68
bedrooms	Bedrooms	2.7
dining	Dining Room	.48
fireplace	Fireplace	.33
garage	Garage	.62
lotsize	Lot Size (sq ft)	19,319
porch	Porch	.81
stories	Number Stories	1.61
totrooms	Total Rooms	5.68
unitsize	Sq Footage	1,833

Results

- Poor Quality housing $\Downarrow > 50\%$
- Square Footage (per person) $\Uparrow$ about 20%
- Real housing expenditures $\sim$ double

Housing Trends for Low-Income Households, 1985-2021
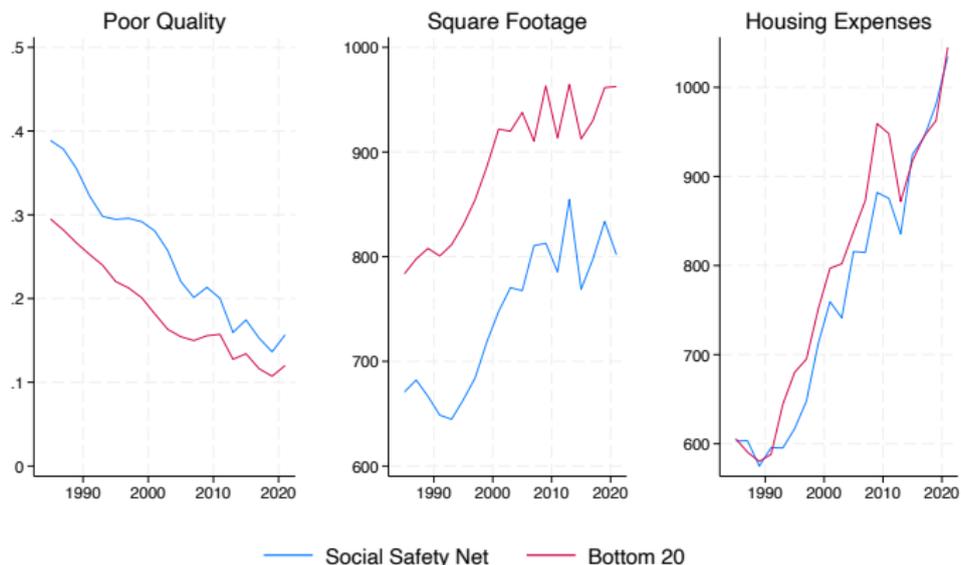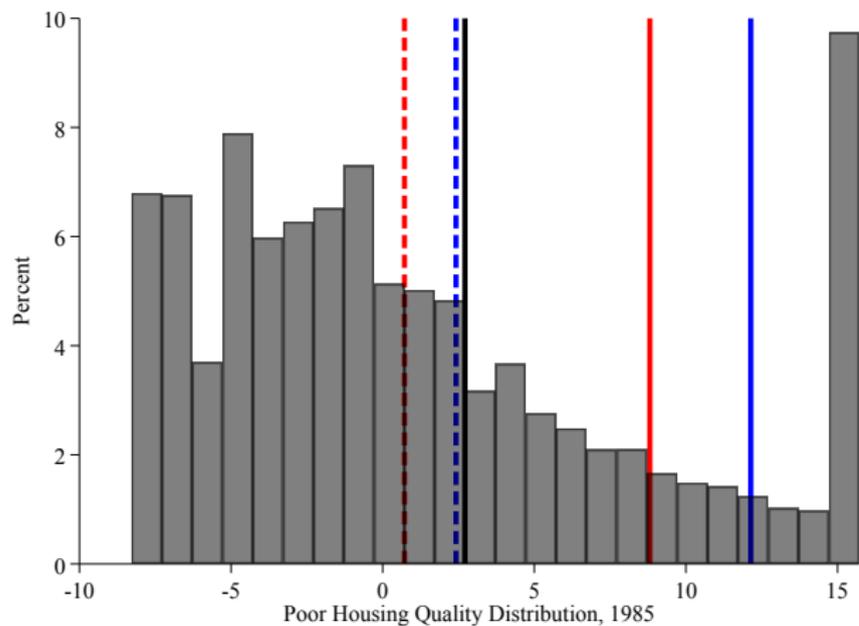
Results

- 1985 National PQI Distribution:
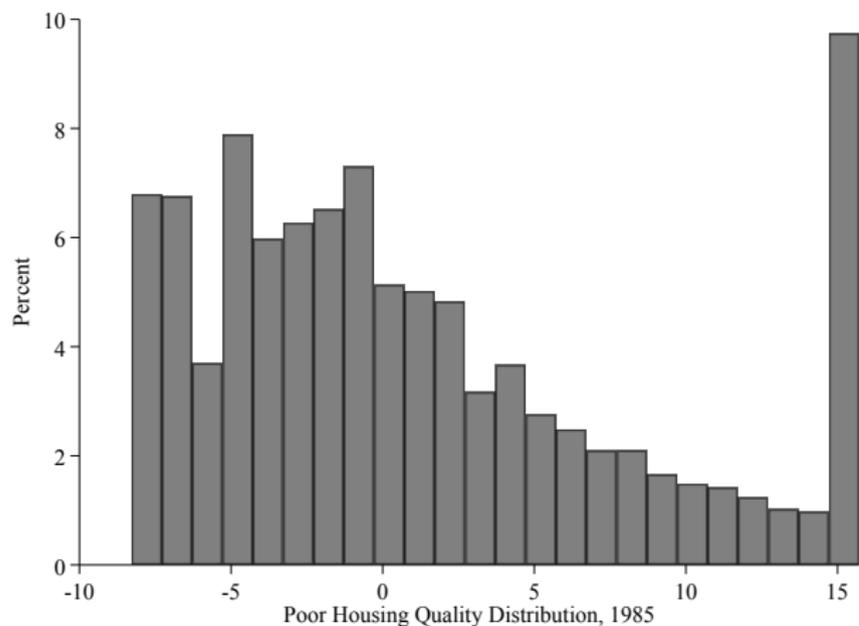
Poor Housing Quality Distribution

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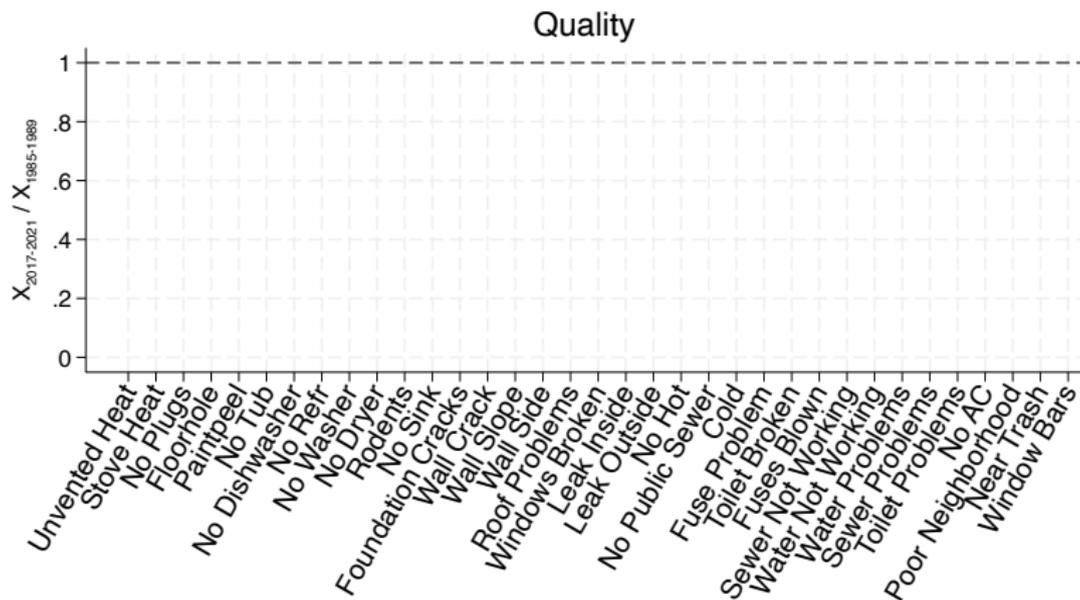
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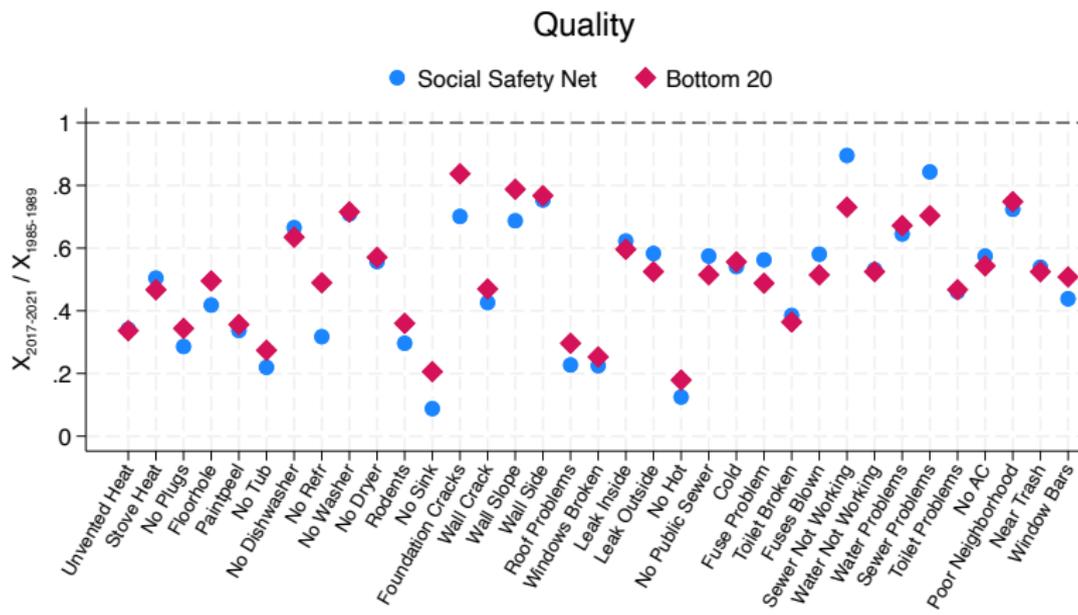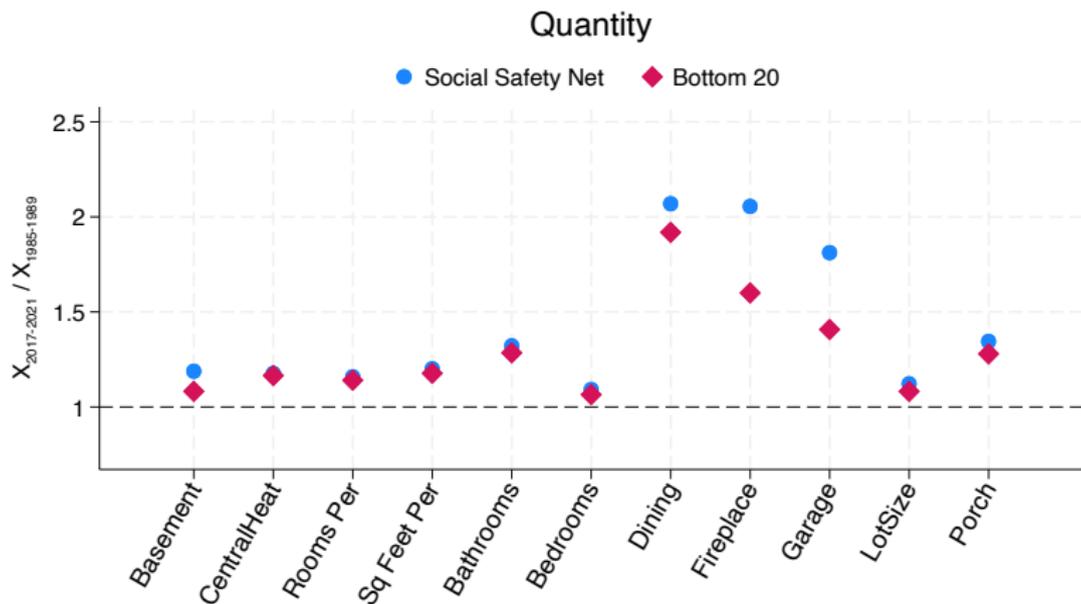Poor Housing Quality Distribution

Results

-
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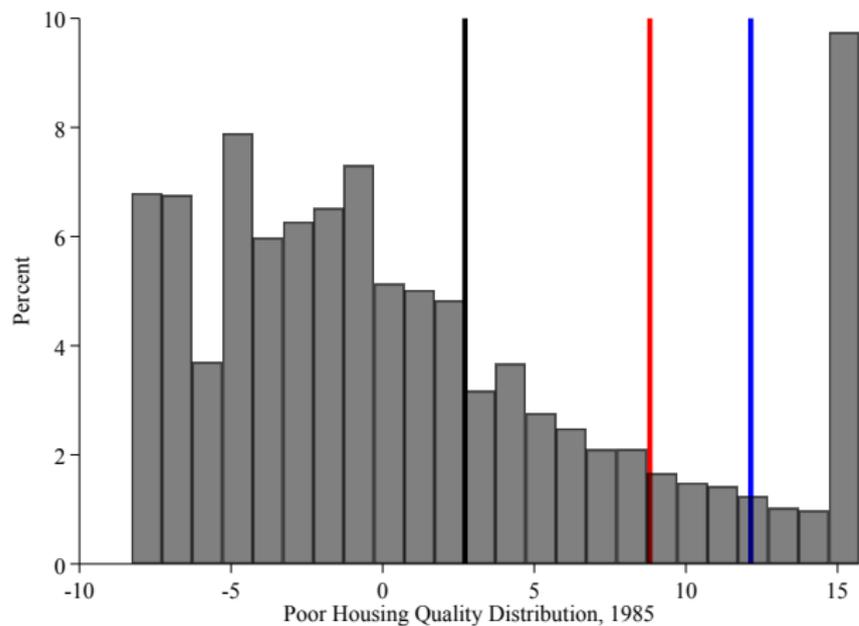
Quality

Results

- BROAD and large ⇓ in poor quality components
  - EVERY poor quality component has improved
- Average decline of 50 percent

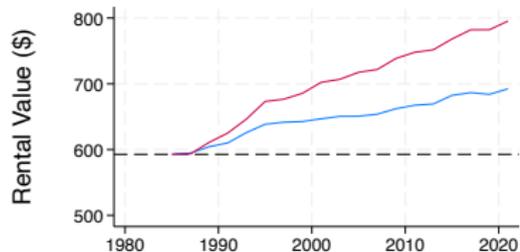## Quality

Results

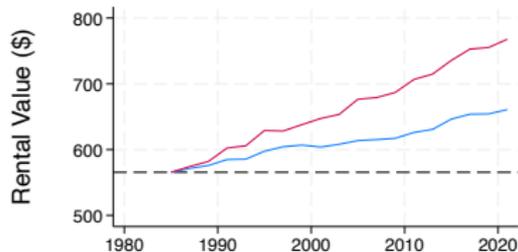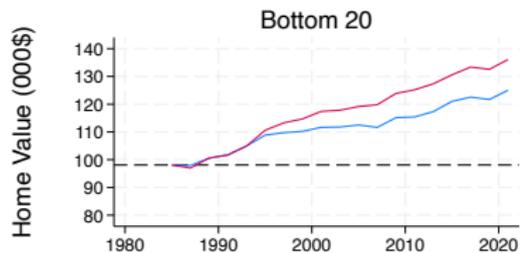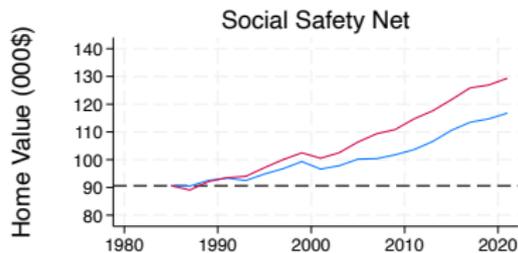- Broad ⇑ quantity (smaller)
- Average increase of 35 percent.

Results

- How to translate these quality/quantity gains to $$?
- Run Hedonic Pricing model on 1985 price/rent data.
- Take results and predict future prices/rents based only on future housing characteristics.
    - What would average 2021 home rent for in 1985?

Results

- Prices: ⇑ 42/39%
- Rents: ⇑ 36/34%

Conclusions

- Housing consumption by low-income households ⇑ 34-42% since 1985
    - Quality improvements large and broad: ALL measures improved throughout the distribution
    - Quantity also increased, smaller %
    - Housing expenditures roughly doubled, income up
        - After-housing expenses budget higher

Supply Constraints Do Not Explain House Price and Quantity Growth Across U.S. Cities
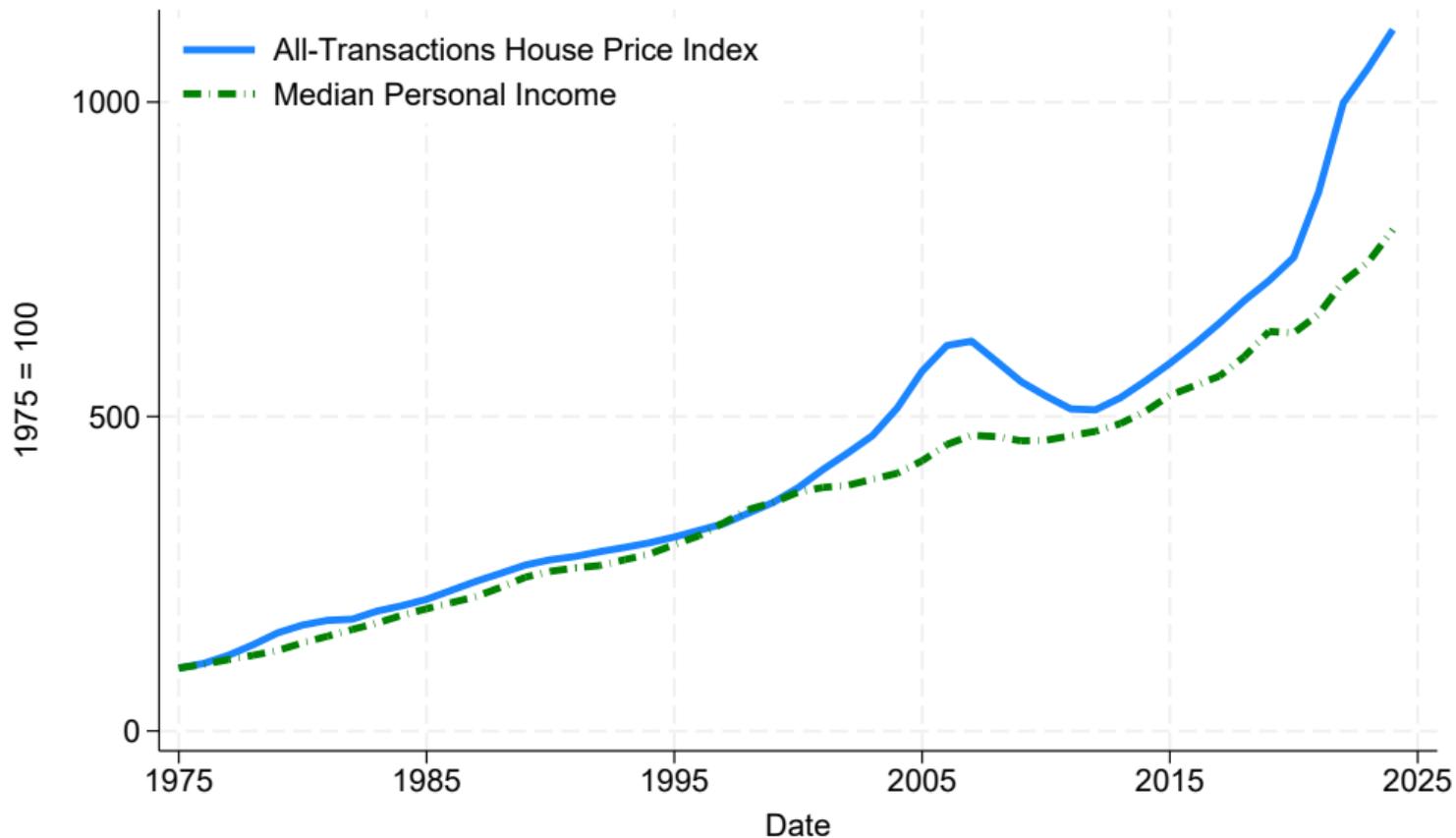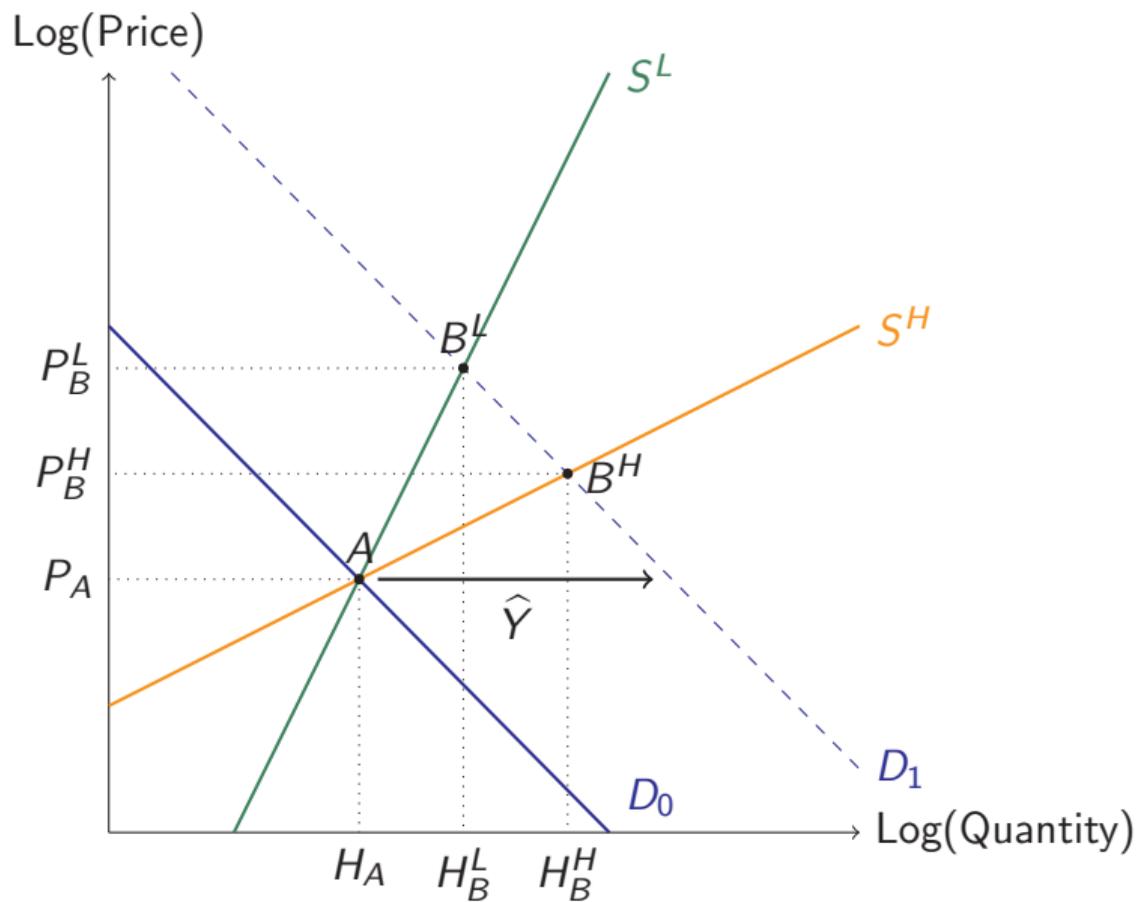
Schuyler Louie   John Mondragon   Johannes Wieland

UC Irvine   SF Fed   SF Fed, UCSD & NBER

HOUSING AFFORDABILITY CRISIS

STANDARD VIEW

THIS PAPER

- The standard view:

    ▸ Housing supply elasticities across cities vary due to geographic and regulatory constraints:

    $$\widehat{H}_i^S = \psi_i \widehat{P}_i$$

    ▸ Differences in ψ_i are important in explaining house price growth and quantity growth across cities.

    ⇒ To improve housing affordability, need to relax housing supply constraints.

- We use data for U.S. cities (MSAs) to evaluate this view:

    ▸ In cities with smaller (measured) ψ_i, does the same change in income growth predict a larger change in house prices and a smaller change in housing quantities?

SUMMARY OF RESULTS

- From 2000 to 2020, the differences in total income growth, per capita income growth, and population growth predict **the same** differences in house price, quantity, and population growth **regardless** of a city's measured housing constraints

    ▸ Same results for 1980 to 2000 and 1980 to 2020

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- Unobserved shocks to housing supply could generate these results, but only under very specific conditions that are at odds the standard view.

- Shocks to housing demand from work from home or from standard Bartik/climate instruments give the same results.

$\Rightarrow$ **Housing supply constraint measures do not matter in the way we expect! Fixing housing affordability may not be as "simple" as we thought.**

OUTLINE
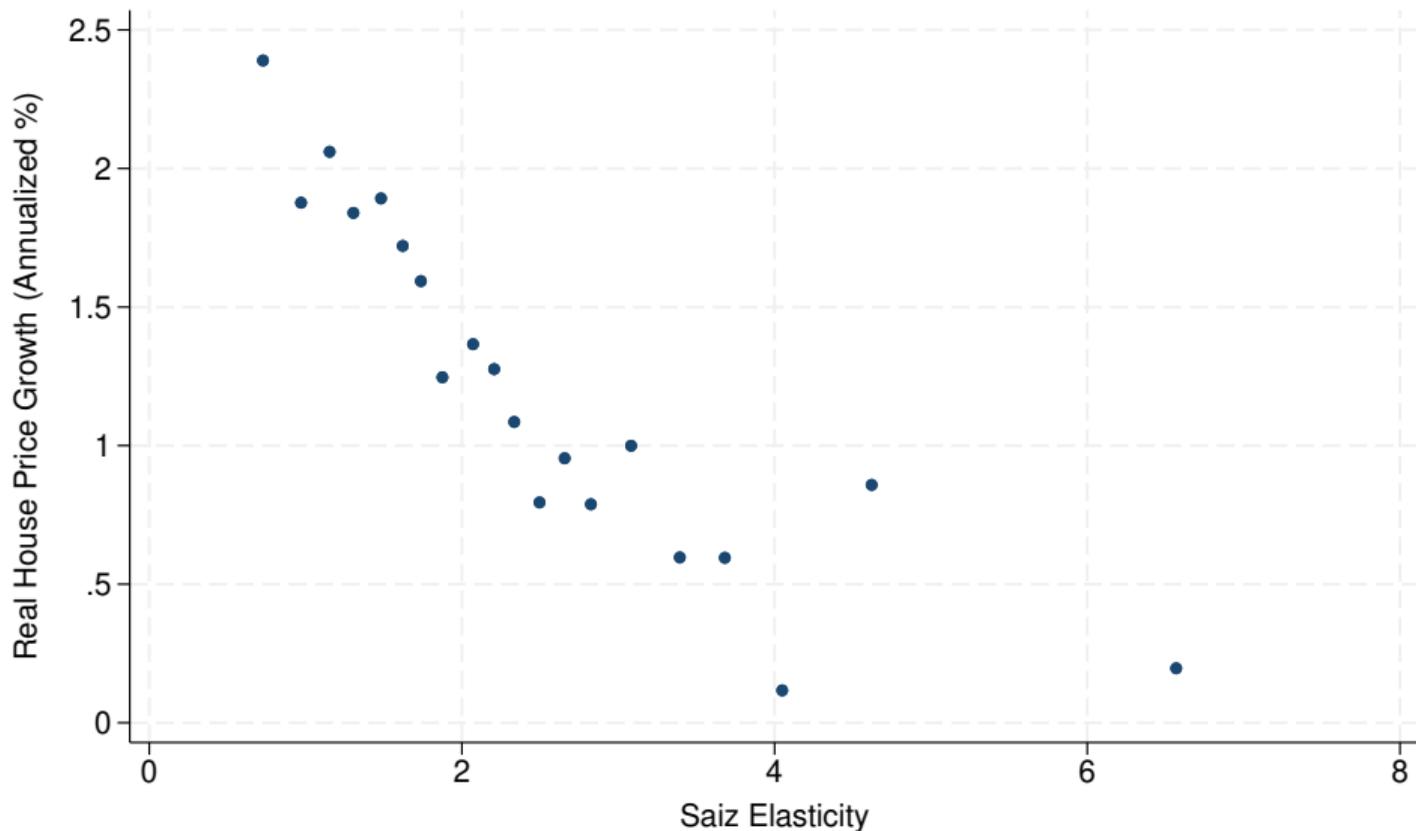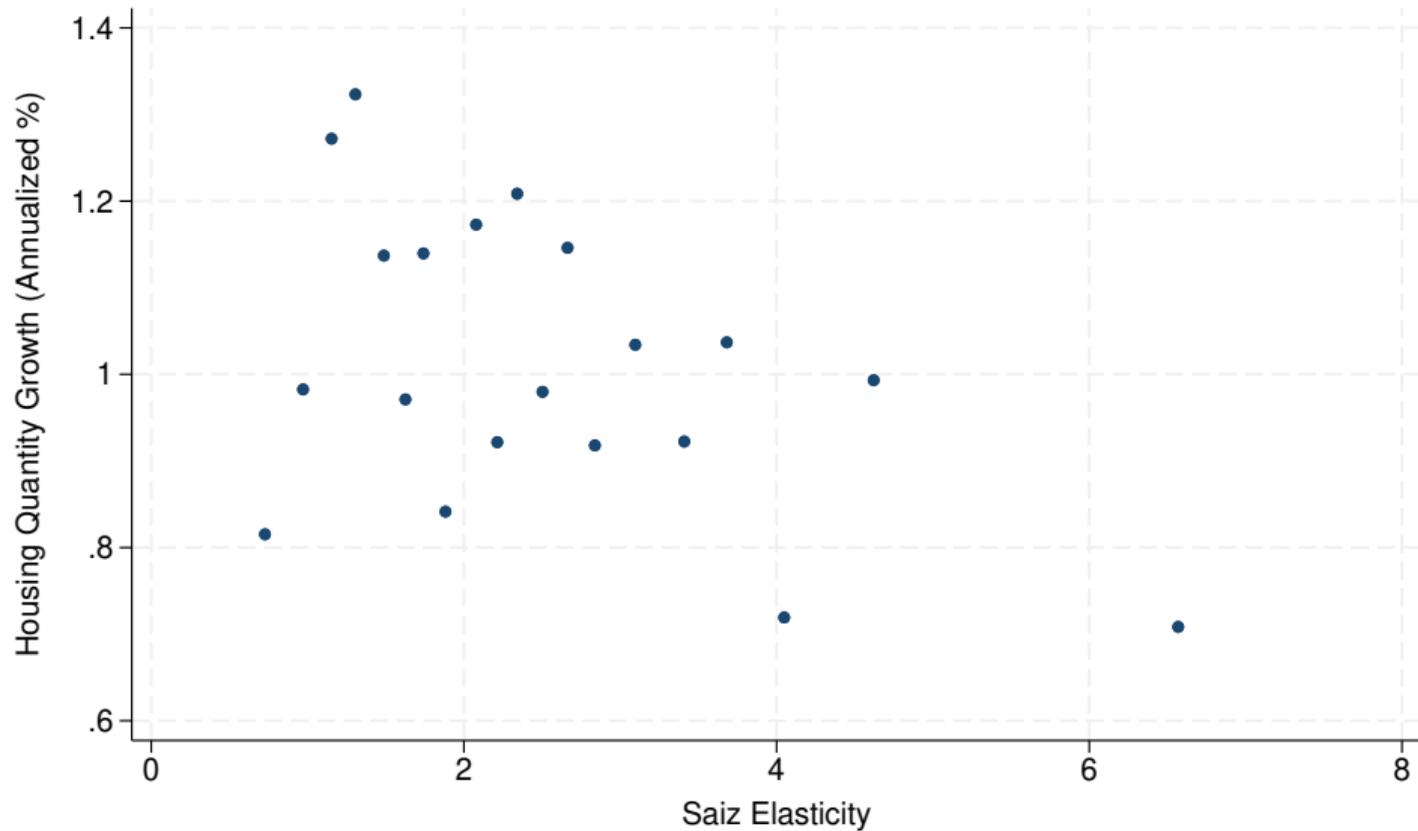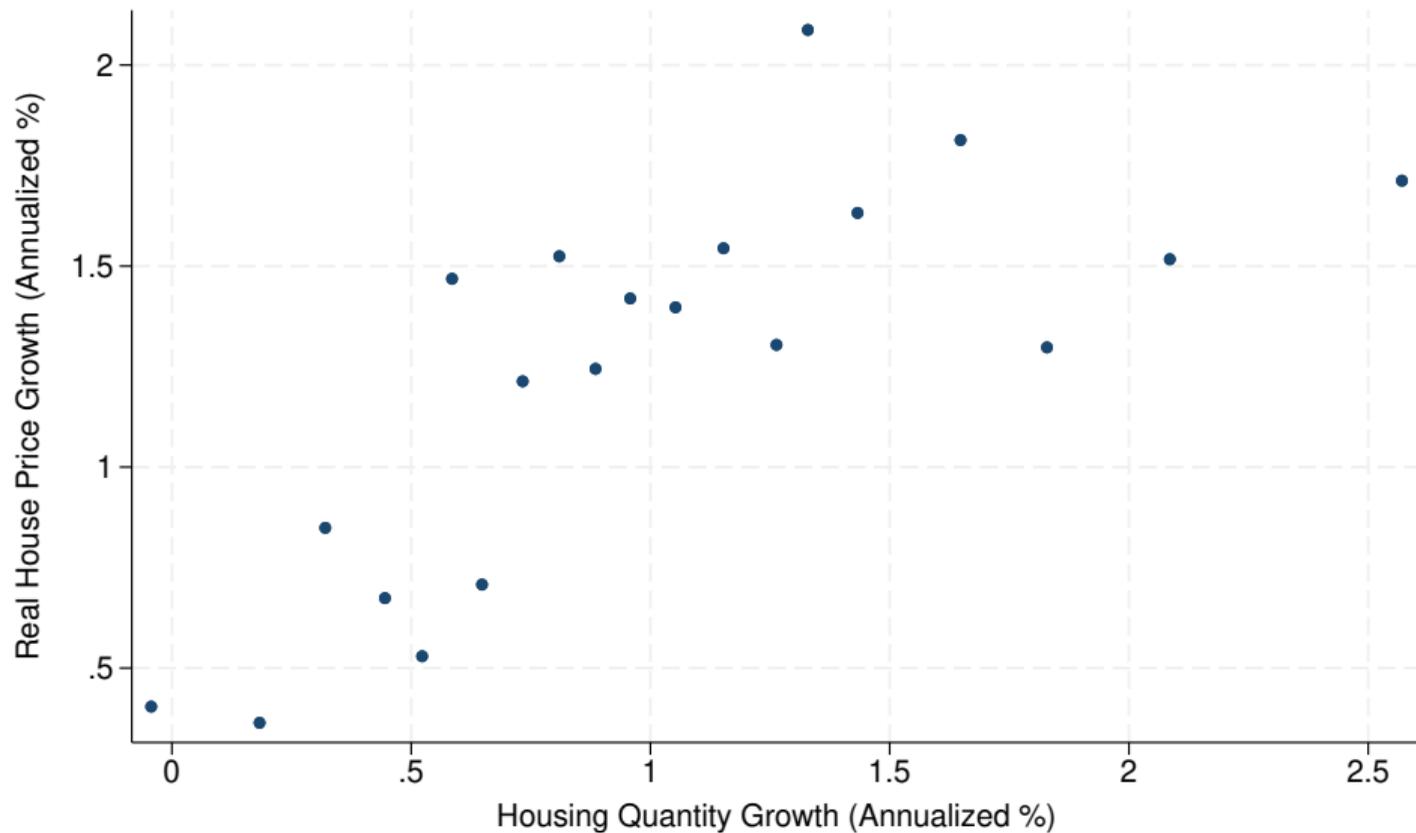
HOUSE PRICE GROWTH (2000-2020) AND SAIZ ELASTICITY

HOUSE QUANTITY GROWTH (2000-2020) AND SAIZ ELASTICITY

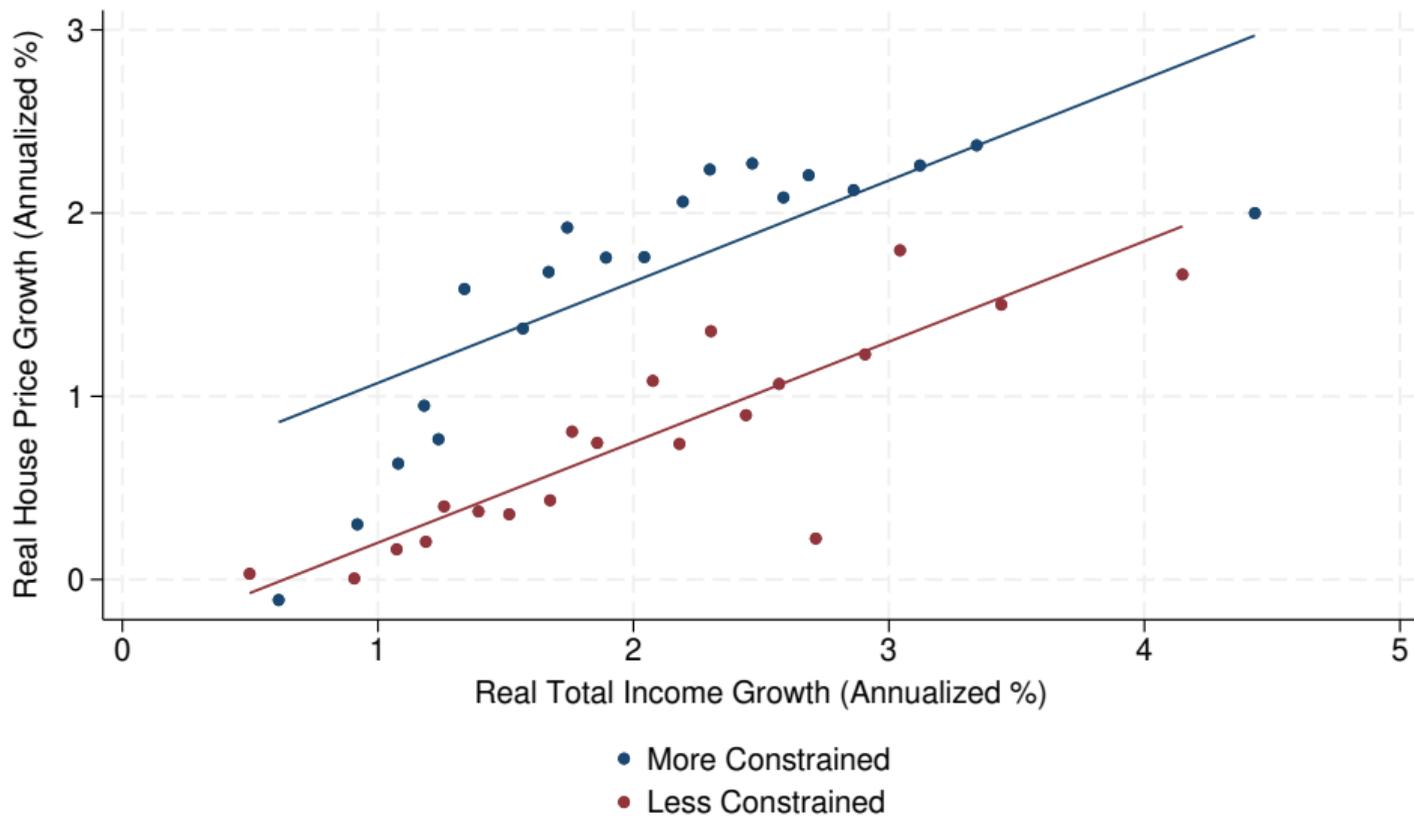# HOUSE PRICE AND QUANTITY GROWTH (2000-2020)

Scatter plot with x-axis "Housing Quantity Growth (Annualized %)" ranging from 0 to 2.5, and y-axis "Real House Price Growth (Annualized %)" ranging from .5 to 2.
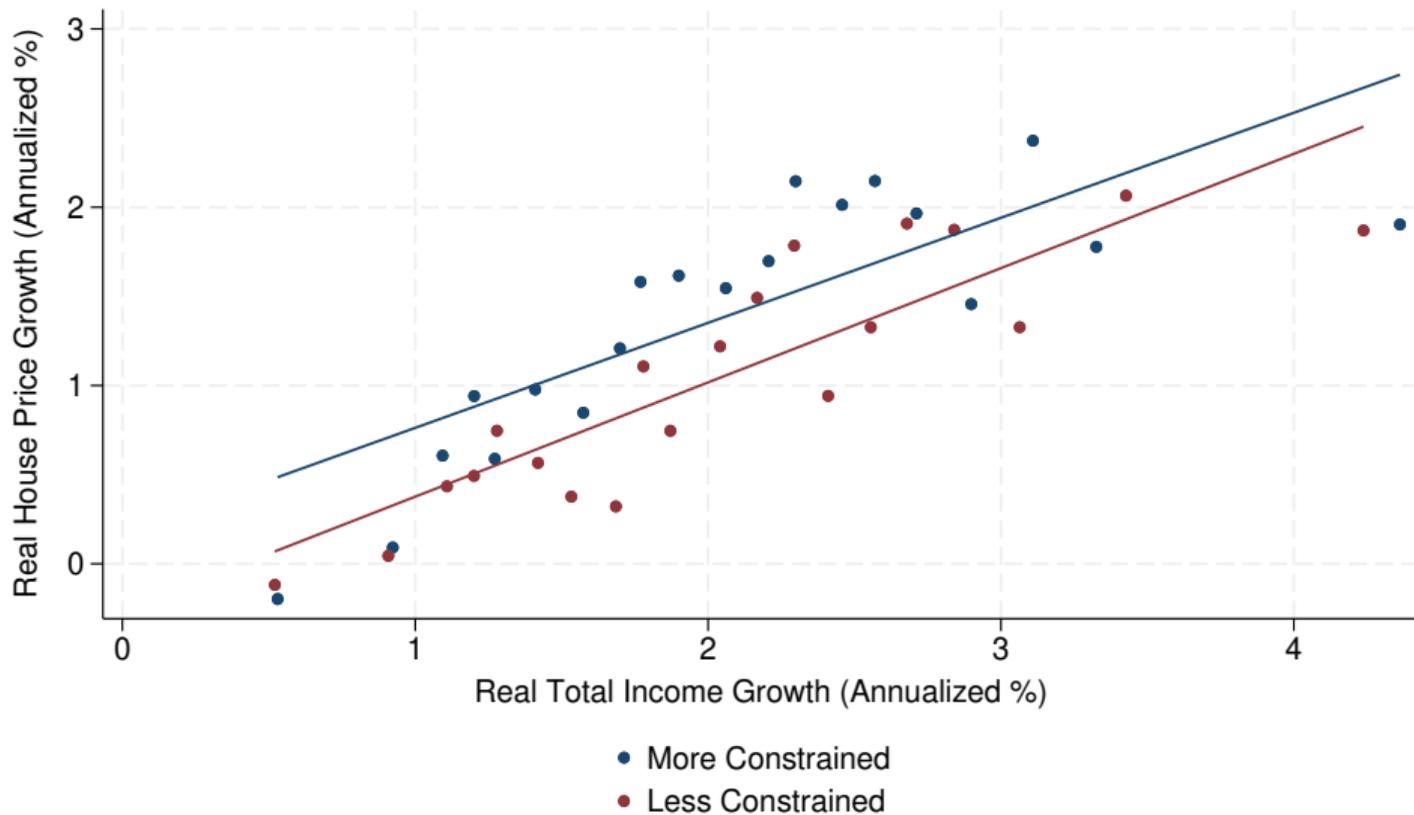
- Do changes in total income growth predict less price growth in less constrained cities?

PRICES: SAIZ (2010)

PRICES: BAUM-SNOW AND HAN (2024)

PRICES: GYOURKO, SAIZ, AND SUMMERS (2008)
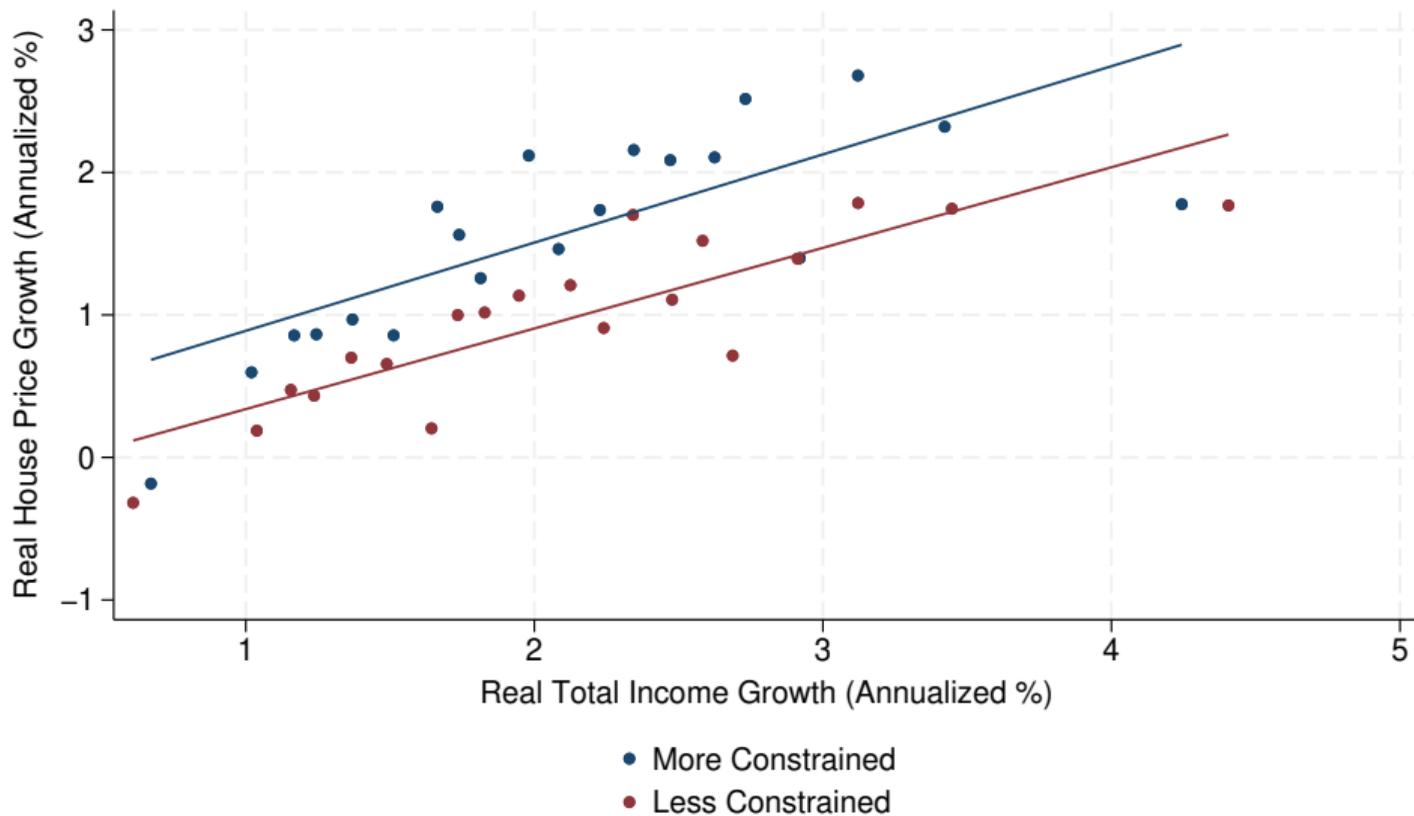
Real House Price Growth (Annualized %) vs Real Total Income Growth (Annualized %)

- More Constrained
- Less Constrained

PRICES: DAVIS, LARSON, OLINER, AND SHUI (2021)

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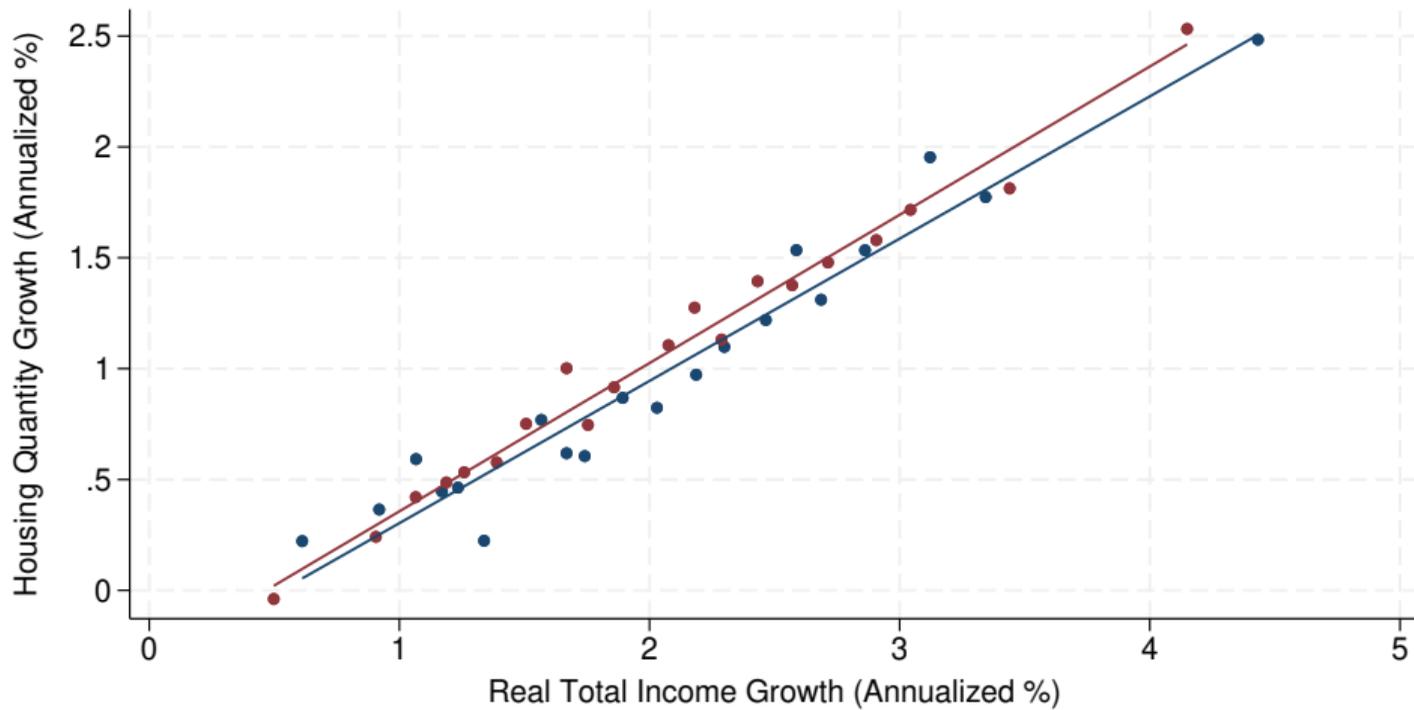
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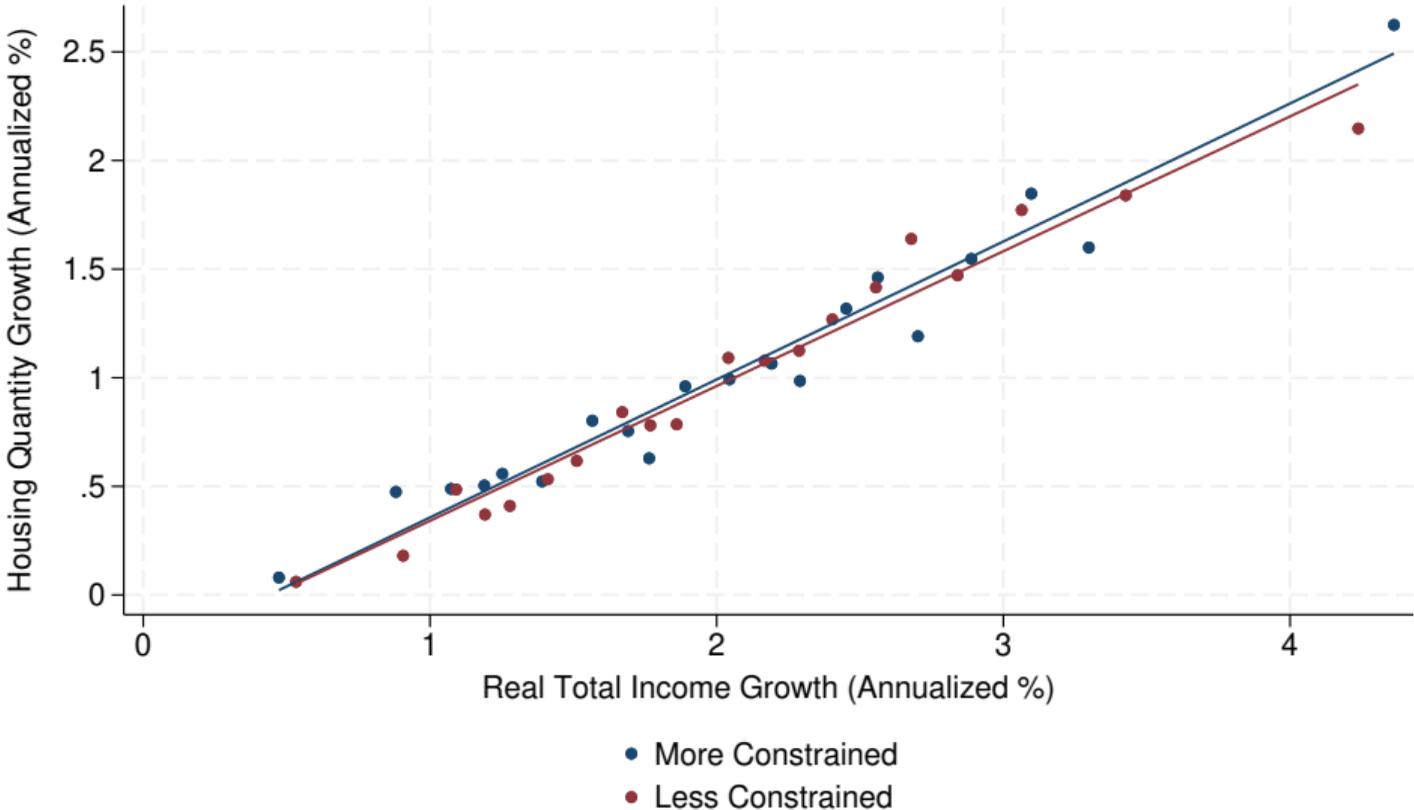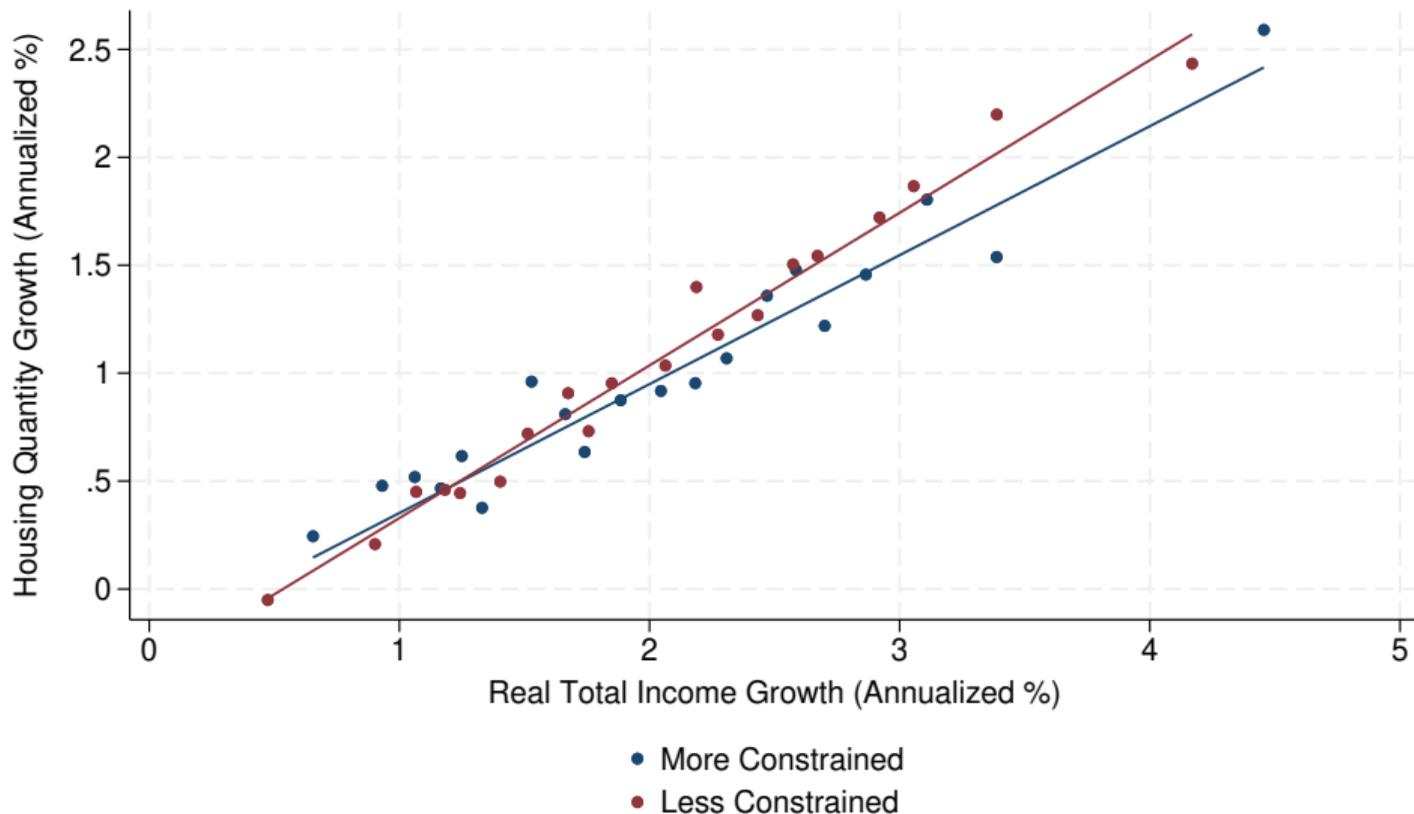# QUANTITIES: DAVIS, LARSON, OLINER, AND SHUI (2021)

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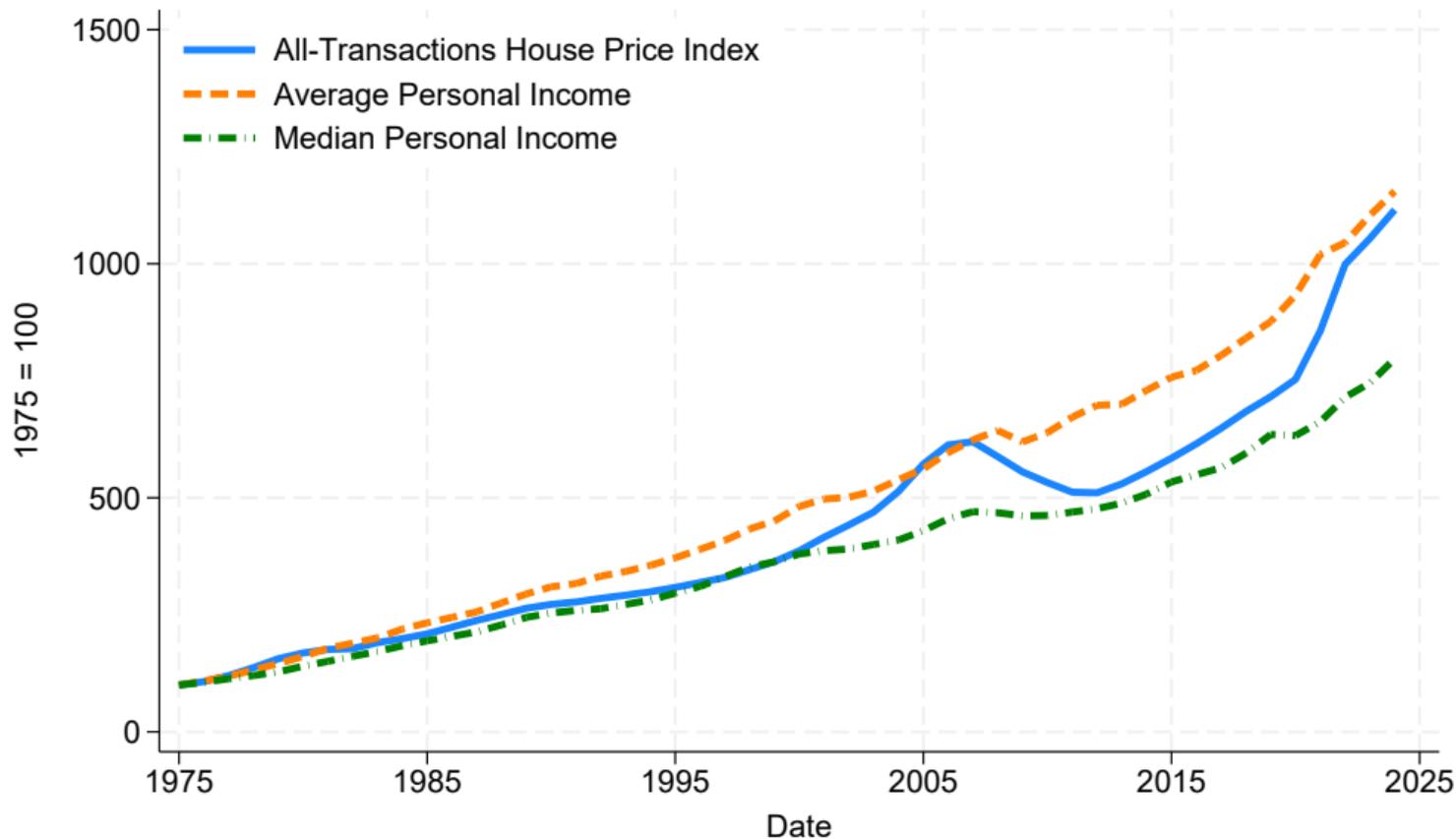
  - Plausibly exogenous shocks give the same results.

OUTLINE

CONCLUSION

- Supply constraints do not explain differences in the growth of house prices and house quantities relative to income growth.

- This is deeply inconsistent with the standard view.

- Suggests that relaxing supply "constraints" is unlikely to affect house prices or quantities (consistent with other evidence).

- But our results bring up more questions:

    - Is this just about the US? Preliminary work suggests no, rich/middle-income countries all seem quite similar.

    - Is a competitive, single-margin, static framework the right way to think about the production and pricing of housing (Watson and Ziv 2021; Watson and Ziv 2024; Baker 2024; Murray and Limb 2023; Lange and Teulings 2024)?

    - Maybe what we're seeing are differences in labor supply?

    - How does the cost of land enter into the production function for housing and interact with capital at the MSA level?

HOUSING AFFORDABILITY CRISIS?

Thanks!