Comments on Yao: “Land and the Rise in the Dispersion of House Prices and Rents across U.S. Cities

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Home prices and rents

• The paper compares the behavior and dispersion of prices and rents.
• Takes some standard data (census, AHS) on price and rent
  • These are not comparable data
  • It’s like comparing Apple dividends and Amazon stock price
• So there are two empirical pieces
  • Comparison of R and P of identical properties
  • Comparison of R of different properties
What should we be modeling?

- We would normally model R and P of the same asset.
- Theory is governed by the Gordon growth model
  - \( \frac{R}{P} = r - g \) (\( g \) = expected appreciation rate)
  - We do have empirical investigations of this
    - Bracke (REE, 2015); Baltagi and Li (RSUE, 2015) use rents and prices of same properties.
    - Bracke finds systematic variation in \( \frac{R}{P} \) attributable to variation in \( g \).
• This paper ignores this piece. No variation in discount rate.
• Both R and P are tied to construction costs, hence differences are strictly due to land and capital differences.

\[ h^O = L^\alpha M^{1-\alpha} s.t. \quad L \geq L_k \]

\[ h^R = A L^\rho M^{1-\rho} \]

\[ (1 - \delta_r - \tau) R(h^R) = \frac{f(\rho) q_k^{\alpha} h^R}{r} \]

\[ P_k(h^o) = f(\alpha) q_k^{\alpha} h^o \]

“\( A \) captures the fact that a rental apartment uses less material and less land compared to a standard house due to the physical difference between these two types of dwellings.” (\( A \> 1 \), but why?)

Prices = construction cost
• So this is not about rent and price, but about large/small or more/less dense, (and not even about multi/single family).
• We also know about the price dispersion caused by different land values:
  • Bostic, Longhofer and Redfearn (*REE*, 2007); Bourassa et al (*RSUE*, 2011)
  • See also Xu et al (*JREFE*, 2018)
• So we need a better sense of what this model brings to the table
Other unclear things

• Tenure choice
• Housing transitions
• Comparability of h in different modes
  • Housing consumption is

\[ s = \begin{cases} 
  h & \text{if Rent} \\
  \theta_k h I_{j \geq j_0} \zeta & \text{if Own}
\end{cases} \]

“\(\theta_k\) is supposed to capture the quality difference between a standard owner-occupied house and a standard rental apartment and how residents on an island evaluate this quality difference.”

• How does this square with the higher productivity of capital and land in rental production? (Footnote on separate identification of these two parameters)