Comment on "Change in the Distribution of Sale/Rental Prices: Comparison of Beijing and Tokyo"

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Paper's contribution

- Motivation: how differently have the sales price and rent moved in Beijing's housing market than in Tokyo's, especially in its boom period.
- For this cross-country study, looks at the distribution of the variables instead of "quality-adjusted" means.
  - Applies the unconditional quantile decomposition approach.
  - Decomposes the changes in the variables into the variable and coefficient effects.
- Examines the price, rent and price-to-rent ratio simultaneously.

Quick review: quantile decomposition

- $\hat{q}_1^\tau - \hat{q}_0^\tau = \underbrace{(\bar{X}_1 - \bar{X}_2)\hat{\gamma}_{0,\tau}}_{\text{Variable}} + \underbrace{\bar{X}_1(\hat{\gamma}_{1,\tau} - \hat{\gamma}_{0,\tau})}_{\text{Coefficient}}$
- Variable effect: due to changes in the composition of houses' characters in the market (e.g., floor space, age, proximity to public transportation).
- Coefficient effect: due to changes in underlying "price structure" or "price function" between two time points.

Main findings for decomposition

- The coefficient effects are larger (and statistically significant) than the total growth rates for both sales price and rent in Beijing's market for all the quantiles (Table 6).
- This implies the growth rates would have been even larger if the composition of houses' characteristics in the market had not changed.
- Such a pattern is also reported for Tokyo's market during the period of asset bubbles (1986-1991, Table 10).
- Very interesting because it seems to imply some consistency among booming markets.

Main findings for distribution

- The price of houses in higher quantiles has grown more than those in lower quantiles in Beijing's market.
- In Tokyo's market during the period of asset bubbles, however, the opposite pattern is observed; the price in lower quantiles grew more.

Comments

- Can the results from the decomposition be used, for example, to detect an asset bubble?
- Are different mechanisms behind the housing booms in Beijing now and in Tokyo 30 years ago if the different distributional patterns in the appreciation rate are taken into account?
- How is it well interpreted when the coefficient estimates for a variable are qualitatively different among different quantiles? (E.g., the coefficient estimates for log of floor space in Beijing: Panel A, Table 4)