Discussion on Ater, Elster & Hoffmann "Real-Estate Investors, House Prices and Rents: Evidence from Capital-Gains Tax Changes"

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Brief Summary

- Study the *dual* role of property *investors*

  - Demand and supply (this paper more on supply) in the sales market

  - Supplier in the rental market

- Sudden policy changes which *exempt* (and reverse later) a certain group of investors from capital-gains tax

  - An ideal opportunity for identifying the effect on investors' behaviors (Diff-in-diff)

- They find capital-gains tax exemption *induce investors to sell properties*, which used to be rented out, to first-time buyers mainly

  - Causes house prices to *fall* due to larger supply in the sales market

  - Causes house rents to *rise* due to smaller supply in the rental market

  - Especially for smaller-and-older-unit market in which investors own a larger percentage

On background and policy

☐ What are the main reasons for the fast increase of house prices and the slower increase of rents between 2007 and 2018?

- It seems that the *growth of rents cannot fully explain the price increase*

☐ When was the capital-gains tax first introduced?

- Was it introduced as a measure to cool down property market, especially speculation?
- What was the effect on property price when the tax was enacted?

☐ Before the exemption, only 30% of "treated" sellers paid the tax. How?

- Are there other types of exemptions?
- How do investors "avoid" the tax? Exaggerate their own improvement?

☐ It seems that rental market is quite frictional (large inertia), any regulative constraints on rent increase when extending leases?

On theoretical analysis

☐ The marginal seller balance the return of *selling now vs. selling later*:

$$P_t - \tau_t \max(P_t - P_0, 0) = \max_T E\left[\sum_{s=t}^{t+T} \frac{R_s}{(1+r)^{s-t}} + \frac{P_{t+T} - \tau_{t+T}\max(P_{t+T} - P_0, 0)}{(1+r)^T}\right]$$

- Policy reduces τ_t and investors expect τ_{t+T} to be higher, inducing investors to sell now
- But it should *only matter to those with capital gains*, if price and rent have not changed

☐ How about other investors, why **DON'T** they buy the properties now?

$$P_t = \max_{\tilde{T}} E\left[\sum_{s=t}^{t+\tilde{T}} \frac{R_s}{(1+r)^{s-t}} + \frac{P_{t+\tilde{T}} - \tau_{t+\tilde{T}}\max(P_{t+\tilde{T}} - P_t, 0)}{(1+r)^{\tilde{T}}}\right]$$

- If the policy lowers P_t and raises R_s, the expected return should be higher than usual now, and we should find more investors buying properties now, but why not?
- Because $P_{t+\tilde{T}}$ is expected to be lower due to the policy? Any reasons?
- Maybe uncertainty regarding future tax policy and house price raises r (risk adjustment)

On identification (1)

☐ In the baseline regression on sales, treated group is investors who sold another unit in the previous 1.5-4 years

- This group is *not the same across time*, investors enter and leave this group
- In Jan 2011, it is those who sold between Jan 2007 and July 2009
- In Jan 2013, it is those who sold between Jan 2009 and July 2011
- So sellers in 2010 is in control group in the former but in treat group in the latter
- Would it cause problems in the estimation?

☐ Are investors in the control group *not* affected by the policy?

- Lower price and higher rent affect their decision to sell too, and if the size of this price effect is different to that of treated group → Not captured by time FE

☐ Is new housing supply controlled?

- It may respond to the policy too, e.g., new supply might drop in the areas with more exempted investors

On identification (2)

☐ Is it possible to use a triple-difference approach?

- Only those who *have* a capital gain worry about the tax

☐ In the specifications for house price and rents, the paper uses two-stage estimation:

$$\widehat{\text{investors' sales}}_{jt} = 100 \times \sum_s \widehat{\text{sales rate}}_{sjt} \times \text{share of units}_{sjt},$$

$$\log y_{ijt} = \beta \widehat{\text{investors' sales}}_{jt} + \gamma X_i + \delta_j + \theta_t + \varepsilon_{ijt}$$

- It implicitly assumes that the policy affects price or rents *only through supply changes of investors*, but is it always true?
- Would supply from non-investors or market demand respond to the policy as well?
- What matters to the rental price is not really the sales rate but *composition of the buyers*, since transactions between investors (and thus landlords) do not reduce the supply of rented housing.

On policy implications (1)

- ❑ Does result challenge the view capital-gains tax can curb house price hikes?

  - It provides evidence that a *temporary* exemption "window", after a period of *fast appreciation*, motivates existing investors to sell and "cash in" the profit.
  - New investors are unlikely to buy those properties, as they are *uncertain of future tax policy* (or price variations caused by it) after exemption window

- ❑ Will result be quite different if exemption is expected to last long?

  - Increase in supply would be less dramatic since current owners need not to "rush"
  - Could it even create more demand rather than supply as *speculation is and will be less costly* and liquidity will improve?
  - So should the capital-gains tax be "blamed", or rather the exemption policy?

On policy implications (2)

- ☐ Who benefit and who lose from the policy?

  - Treated investors w/ capital gains, treated investors w/o capital gains, non-treated investors, potential buyers, renters

- ☐ Are taxes or policies that constrain purchases more effective for cooling down market?

  - Higher stamp duty for investors (Singapore: up to 18% to foreigners in Singapore)

  - Higher down payment for investors (Beijing: up to 60% to 2nd-time borrowers)

  - Purchase restrictions (Beijing: No more than 2 units per household)

  - Those policies may be effective in short run but create more frictions in long run

- ☐ Capital-gains tax is milder as an "automatic stabilizer": no tax when house price is stable or falling, heavier burden if price is rising

  - Frequent changes of the tax create large policy uncertainty → Distort investment decisions

  - Combination of stable capital-gains tax with discretionary and temporary measures

- ☐ Does Israel have property tax? Would it be used to cool down market too?

On policy implications (3)

- ❑ Should Israeli government serve as a provider and price stabilizer in the rental market?
  - If demand is inelastic while supply is elastic in the rental market → change in the investment market could easily shift to the rental price
  - Seems to be a trade-off between high home ownership and low renting cost
- ❑ Should the housing sector be divided into two segments?
  1. Market-oriented, efficiency-maximized, and views houses as assets or investment tools
     - Government intervenes only when financial health is concerned (e.g. housing bubbles, large-scale mortgage defaults)
  2. Rationing-based, equity-enhanced, and views houses as egalitarian goods
     - Target low-income to middle-income households
  - An example: Singapore's affordable housing