## Global Capital and Local Assets: House Prices, Quantities, and Elasticities

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# Summary

- <u>Narrative</u>: After some countries instituted taxes on foreign buyers, those would-be foreign buyers in places like Singapore instead bought homes in the US, and especially in neighborhoods with lots of foreign-born residents.
- <u>Causal question</u>: What effect did these capital inflows have on local prices, rents, and building permits?
- <u>Strategy</u>: Conjecture gravity model that capital flows to cities with high foreign-born share. Diff-in-diff with (pre-period foreign born) \* (post Singapore tax #1).
- <u>Findings</u>: Prices grow +6-9% in top foreign-born zips. Q grow +1%
- <u>Broader question</u>: This seems like a predictable demand shock. Let's use it to identify supply elasticities for future work.

## **Outline of Comments**

1. Identification: could the demand shock also shock supply?

2. Broader question of what ammunition we can hoard for affordability conversations + what misconceptions can we clear up about the role of supply in affordability?

#### Could (foreign born)\*post shift supply curve, too?

- OLS estimation of supply curve would ignore supply curve shifts, and estimate supply elasticity from AC slope
- 2SLS focuses on demand shock from (foreign born)\*post, designed to estimate supply elasticity from AB
- However, requires demand shock to not also shock supply. "The approach also requires making the plausible exclusion restriction assumption that foreign buyer taxes only impact U.S. housing markets through increased foreign investment after their adoption."
- Paper points out that 2SLS estimates > OLS estimates, implying they have purged some of the supply shock from the data.
- However, if the demand shock also moves out supply curve then, estimates of supply will *still* be too elastic.



#### Could (foreign born)\*post shift supply curve, too?

- However, key component of supply curve is expectations around future demand.
- Based on Figure 3, this wasn't a one-time shock to demand, this was a persistent change in the growth of demand.
- If homebuilders expectations around future demand changed, then supply could have shifted out.
- Then estimated supply still biased towards being more elastic than it is.
- Tricky semantics: If expectations about future demand *shift* supply instead of moving along an inelastic supply curve, is supply really that inelastic?

160 Foreign Purchase \$ Volume, Billions USD 80 100 120 140 80 2011 2010 2012 2013 2014 2016 2017 2018 2019 2009 2015 Year

Figure 3: International Capital in the U.S. Housing Market

## Answering Dial-a-quote Calls from Reporters

- This topical paper could help with two sorts of conversations that come up all the time around affordability:
- 1. What is going to happen with all these foreign buyers moving into my neighborhood?
- 2. Does increasing supply really work?

### Typical Conversation with Reporter: #1

- <u>Reporter</u>: People are panicking about foreign buyers buying up homes in their neighborhoods. What is this going to do?
- Economist: Well, we have lots of demand pressure, this is one form.

<u>Reporter</u>: But what will it do to neighborhoods??

<u>Economist</u>: Well, it's a demand effect, but it's not clear it will be any different from a lot of people suddenly moving to Oakland from Atlanta.\* Prices will increase, in the long-run supply should increase. C'est la vie.

\* Caveat Badarinza et al. (2018)

#### Typical Conversation with Reporter: #2

- <u>Reporter</u>: People are panicking about housing affordability. What can be done?? Shouldn't we institute/strengthen rent control? Is our city doomed? Is there any hope?
- <u>Economist</u>: Well, we have lots of demand pressure. What we need is more supply.
- <u>Reporter</u>: Oy vey. Again with the supply trope. You people have been saying that for decades, supply has gone up, and prices have not gone down [except for the GFC].
- <u>Economist</u>: Well, counterfactuals are hard to see. Think how much worse it would have been if we hadn't had that supply.

#### Appetite for empirical evidence for Econ 101

- The dynamics we preach:
  - 1. Demand goes up
  - 2. Prices go up a lot in the short-run to A'
  - 3. Supply goes up
  - 4. Prices go down to B. Never to A, but to B.
- Realities:
  - 1. Demand increase isn't a one-time thing. Housing demand shocks are persistent demand growth shocks.
  - Please don't think we're saying supply => price declines in the time series. Developers not going to increase supply by enough to decrease prices.
  - 3. Prices *decrease* because of negative demand shocks. Be careful what you wish for.
- Would love to see demonstration of dynamics in this paper. Current estimates average over 10 years. Can you do more to show supply response kicking in with lag and taking steam off of demand's effect on prices?



### Conclusion

- Increase in homebuying by foreigners seems triggered by taxes discouraging this behavior abroad.
- Pushes up prices and rents, leads to increase in permitting activity
- New supply elasticity measure helps with misnomer of "the" supply elasticity of a place. Truth is state contingent: horizon, time period, source of demand shock.
- Could be very useful for demonstrating fundamental effects of supply on affordability.