Discussion of Löffler Siegloch (2018)
“Property Taxation, Housing, and Local Labor Markets: Evidence from German Municipalities”

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Important, promising paper!

1. **Big question:** What is the effect of increasing property taxes on rents, house prices, wages and welfare?

2. **Interesting variation:** many changes to local $\tau^{property}$ in Germany

3. **Nice Framework:** local labor markets with housing and construction
What do they find: rents fall then fully recover
A tax in the rental market for housing services
Long run: Impact of capital tax (when $\epsilon^S = \infty$)
Comment #1 - Focus more on supply of housing services

1. Empirics:
   - Can you measure how much quantity falls? Can you infer this from property tax revenues?

2. Parameter values:
   - Given tax change and elasticity of demand, what is implied $\hat{\epsilon}^{HS}$?
   - Appendix Equation B.38 should be in main text

\[ \epsilon^{HS} = \frac{1 - \gamma + \theta}{\gamma} \]

where $H = L^\gamma K^{1-\gamma}$ and Land supply is $L = p_{land}^\theta$

- How big is $\gamma$? Do land cost shares vary across regions?
- Short run versus long run?
Comment #1b - Focus more on supply of housing services

These are tax increases, so supply may be pretty inelastic

Source: Figure 1 of Glaeser Gyourko (2018)
Comment # 2: more welfare accounting clarifies results

Worker welfare:

\[ V_{ic}^H = (1 - \delta) \left( \ln w_c - \alpha \ln r_c^H - \alpha \ln (1 + t_c) \right) + \delta \ln G \]

\[ \Delta V_{ic}^H = (1 - 0.06) (-0.05 - 0.3(0.019) - 0.3(0.10)) + 0.06(0.15) \]

\[ = 0.94 (-5\% + 0.6\% - 3\%) + 0.9\% \]

\[ = -7\% + 0.9\% \]

Wage and mechanical tax effects are driving losses for typical worker (and they are leaving, which is consistent with worker welfare declines)

Aside: Clarify experiment/ connection to benefit view

- Mostly deficit reduction (85 cents), only 15 cents of G
- Heterogeneous $\delta$ across individuals?
Comment # 2: more welfare accounting clarifies results

Firm owner welfare (note \( Q = N^\beta \text{Floor space}^{1-\beta} \)):

\[
V_{ic}^F = \left( -\beta \ln w_c - (1 - \beta) \ln r_c^M - (1 - \beta) \ln(1 + t_c \kappa) \right) + 0 \ln G
\]

- \( \beta = .6 \) means 40% of firm cost is floor space (which seems very high) and firms more sensitive to rents than people
- Assumes no productivity impact of gov spending (key in FMSZ 2018)

Welfare of supplier of housing services:
- Shouldn’t this just be impact on rents? Focusing on house prices mixes stock and flow

Landowner welfare:
- How do landowners bear roughly of incidence if rents don’t decline?
- Clarifying that population falls \( \Rightarrow \) lower quantities, \( \downarrow K, \downarrow p^{\text{land}} \)
- Showing what happens to CS, PS, property tax revenue would help
Home prices should be the flow of anticipated after-tax rental payments:

\[ P_t \approx R_t + \frac{R_{t+1}(1 - \delta)}{(1 + r)} + \frac{R_{t+2}(1 - \delta)^2}{(1 + r)^2} + \ldots \]

where
- \( \delta \) is the depreciation rate
- \( r \) is the interest rate

Quantitatively, the price-rent ratio is:

\[ \bar{P} = \bar{R} \frac{1}{1 - \left( \frac{(1+g)(1-\delta)}{1+r} \right)} \]

If \( g = 0, \delta = .05, \) and \( r = .05 \), then the price-rent ratio \( \approx 10.5 \)
What do they find: land prices fall and some pre-trend
Comment # 3: focus more on the price-rent relationship

1 Data:
- Can you show impacts on house prices?
- Would expect time path of impacts to reflect
  \[ P_t \approx R_t + \frac{R_{t+1}(1-\delta)}{(1+r)} + \frac{R_{t+2}(1-\delta)^2}{(1+r)^2} + \ldots \]
- Land prices decline by 20 EUR/sqm and rents decline by .05 EUR/sqm, which is much bigger than price-rent ratio. Would look into this more

2 Model:
- In the model, ratio of impact on land prices to rents equals $1/\gamma$.
- Seems quite restrictive. Would consider how to relax this price-rent impact ratio a bit
Comment #4: Provide more info on tax variation & use it

How big is the typical property tax?

- \( R = 6 \) EUR/sqm
- \( \tau = 3.3\% \)
- \( Tax = 0.2 \) EUR/sqm

What are the causes of property tax changes?

- Can you run a policy probit? Shows when changes are likely
- What else happens to budget and other tax policies? Perhaps you have more variation in G from different budget responses?

Are effects bigger for big tax changes?

- Can you use variation in size of tax change to improve precision? And show how that affects outcomes proportionally?
Summary of comments

Important, promising paper!

1 Model
   - Focus more on supply of housing services
   - Price-rent relationship

2 Connect theory and empirics
   - Parameters that rationalize results
   - What would data have to look like under different views? Can you reject any statistically?

3 Accounting and welfare calculation
   - What happens to government budget? level and allocation of value?

4 Variation
   - Policy probit
   - Large increases. Use dosage

5 Data
   - Measuring land prices is hard. Add housing prices?
   - Missing quantity outcomes of interest, but maybe can use tax revenues