Discussion of:
Macroprudential Policy and Household Leverage: Evidence from Administrative Household-Level Data
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Research Question

Are mortgage LTV limits effective as a macroprudential tool?

- Rationale
  - Agents overborrow in good times (Lorenzoni, 2008)
  - Build-ups of household leverage followed by defaults, low output growth, and high unemployment (Mian et al., 2017)

- LTV limits adopted by 60 countries from 1990 to 2016
  - Most used macroprudential tool in advanced economies
  - See IMF database by Alam et al. (2019)

- Laboratory
  - Introduction of LTV limits in Netherlands in 2011
  - Extremely detailed household-level data (first-time buyers)
Findings

1) **Limits are effective in reducing household leverage**
   - Limits are binding (bunching at the limit)
   - The market “moves” to conform with the new rules
   - LTV ↓ more for low-income, -liquidity, -wealth households

2) **Borrowers increase their downpayments to conform**
   - Borrowers do not obtain other sources of credit
   - Borrowers use their liquid assets for the downpayment

3) **Default and homeownership**
   - Better repayment performance by borrowers
   - Decline in transition from renting to buying
Limits Bind and Market Conforms
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- Evidence of bunching around the limit very convincing
  - Hard to find alternative stories to explain the bunching
  - % of loans that would have been affected in the pre-period?

- When does the market move to conform?
  - Rules announced in Mar11, implemented in Aug11
    - After = 0 in Aug10-Jul11, After = 1 in Aug11-Jul12

- Why does the market conform before implementation?
  - I would expect a “rush-to-borrow” by high-LTV borrowers before Aug11
  - Need to clarify the timing
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Building the Counterfactual

There is no counterfactual

- We don’t observe the same borrowers pre-/post- policy
- Borrowers *choose* to borrow.

- **Build our own counterfactual**
  i) Predict LTV in the pre-period
     ... for each household wealth percentile × zip code cell
     ... using income and income$^2$ as predictors
  ii) Use $\hat{LTV}$ in a Diff-Diff specification

- **More on this predictive exercise**
  - Why income and income$^2$? Driven by theory?
  - How good is the prediction? In-sample, out-of-sample?
  - What about age, marital status, wealth?
  - Exercise made for machine learning (random forest models)
General Equilibrium Considerations

Residential Property Prices for Netherlands, Index 2010=100, Quarterly, Not Seasonally Adjusted
General Equilibrium Considerations

- **LTV limits change the equilibrium in the economy**
  - Predictive exercise is based on the pre-policy eqm
    - e.g., Lower house prices in the new eqm $\rightarrow$ lower LTVs
      $\Rightarrow \hat{LTV}$ is overestimated
    - e.g., Banks might want to increase LTV of *conforming* households
      $\Rightarrow \uparrow$ LTV for households with predicted LTV < 106

- **We do not observe the *same* borrowers before and after**
  - Document how the distribution of household characteristics change before and after (table 1 not enough)
  - Less emphasis on identification, more on potential channels at work (with GE considerations in mind)
Defaults and Institutional Details

- **Institutional details**
  - Do the limits apply to all borrowers? (“106 ltv limit applies *most cleanly* to first-time homebuyers”)
  - Are mortgages securitized?
  - Very low default rate (lender recourse, priority of mortgages in bankruptcy, high recovery rates)
  - The share of the housing stock going into foreclosure in 2010 was 0.03% in the Netherlands and 2.23% in the U.S.

- **Defaults**
  - Do defaults really matter in this context?
  - Are 18 months enough to observe repayment performance?

- **Data work**
  - Observations with $LTV < 80$ are dropped. How many observations are dropped?
  - Observations trimmed at the 1 and 99 percentiles but the top 1% is likely important for transmission
Conclusion

- Obviously important and policy-relevant question
- Impressive household-level data
- My comments:
  - Refine prediction of LTV
  - Acknowledge and discuss GE effects
  - Careful with “identification language”
  - Tie up loose ends (timing, institutional details)