Discussion of

The price of leverage: Learning from the effect of LTV constraints on job search and wages

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Overview

- Consider a policy change in Norway: caps LTV ratio at 85% in 2011
- Main findings: Reduction in household leverage enables displaced workers to
  (1) find jobs with higher wages
  (2) search longer for jobs (i.e., longer unemployment duration)
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  (1) find jobs with higher wages
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- My discussions:
  - Sketch a model to understand the first two findings and competing mechanisms
  - Extend the model to rationalize the third finding, calling for additional evidence
  - Comments on research design and estimated effects
  - Policy implications

Model setup

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  - Accept or reject, once accepted, will get paid by w forever.
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  - Accept or reject, once accepted, will get paid by w forever.
  - The agent has to repay debt $s < \theta$ in each period.
- Job search involves risk and liquidity concerns:
  - Continued search: bearing risk, potentially higher future payoff.
  - Stop searching: avoid risk, immediately higher current payoff.

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- w^* is determined by the indifference equation $U = W(w^*)$.

$$u(w^* - s) = u(\theta - s) + \frac{\beta}{1-\beta} \int_{w^*}^{\infty} [u(w-s) - u(w^* - s)] \, \mathrm{d}F(w).$$

Model prediction and competing channels

- w^* is not observable, but it is informative about observable variables:
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  - Intuition: $s \downarrow$, less risk averse and liquidity constrained, pickier in job search.
- With limited liability (no repayment during unemployment), then $\partial w^*/\partial s > 0$
  - Intuition: debt overhang (Donaldson, Piacentino and Thakor, 2016).
  - Irrelevant due to full recourse mortgage debt in Norway.

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- My interpretation/conjecture: the treated group is probably directing their search to a different sector, without changing the broadness of job search.
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  - Intuition: jobs in high-paid sectors are harder to find. With less debt, displaced workers are less risk averse/liquidity constrained, so search in this sector.
- **Suggestion**: check if new jobs are in higher-paid industries/occupations.
  - Decompose increased wage into within vs. across industry/occupation effects.

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  - Sector-L: wage offers from $F^L(w)$ every period for $t \geq 1$.
  - Sector-H: wage offers from $F^H(w)$ with prob. $p < 1$ every period for $t \geq 1$.
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  - $F^H(w)$ stochastically dominates $F^L(w)$.
- With a proper choice of p, can prove the following:
  - When $s < \bar{s}$, search in sector-H.
  - Within either sector-H or -L, higher s reduces w^*.
- All three empirical findings can be rationalized through a single mechanism.

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- The authors validate that the misclassification errors are likely small.
  - If anything, they generate attenuation bias.
- What are the predictors in the random forest model:
  - Household deposit, income, wage, credit, and many others.

Research design (continued)

- Potential concern: several predictors can affect job search decisions through the same risk/liquidity mechanism as leverage.
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(2) Use repeated cross-sections with the same composition of characteristics, focusing on short span between mortgage purchase and job loss
  - Tracking same workers over time does not provide clean identification because of wealth accumulation; Mass layoffs do not occur frequently for same workers.

- **Suggestion**: try a smaller set of predictors, excluding deposit and credit.

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- What's the monthly payment of the treated group before/after policy change?
- What's their average disposable income and credit condition?
- How the estimated elasticity compared to those estimated in the context of credit/UI benefits on wages/unemployment duration?
  - e.g., Card et al. (2015), Nekoei_Weber (2017), Herkenhoff et al. (2023)
  - All these share the same risk/liquidity mechanism

Comment 4: Policy implications

How should we think about the policy implications of these big effects?

- They don't necessarily support policies that reduce ex-ante leverage.
  - Housing generates utility and improves welfare.
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- They don't necessarily support policies that reduce ex-ante leverage.
  - Housing generates utility and improves welfare.
  - Reducing mortgage supply can lower welfare unless there is significant behavioral bias or negative externality on taking debt.
- The significant adjustments in job search after deleveraging suggests
  - The failure of credit and insurance markets
  - Mortgage repayment plans are too rigid.
  - Borrowers adjust their job search strategies as a way of self-insurance.
- Responses of observables in labor market provide a way to gauge the credit and insurance market failures (Chetty, 2008).

Conclusion

- Main comments:
  - Explore more evidence related to the third finding
  - Provide some back-of-the-envelope calculations for elasticities
- Interesting and policy-relevant paper! Best luck with your publication