DISCUSSION OF “WHEN CREDIT DRIES UP”

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**Overview**

- Very nice paper.

- Makes use of extraordinary dataset.

- Contributes to large literature showing that availability of credit affects real outcomes.

- With these data, should be able to answer *why* and *how much* credit matters.
Identification

- Challenge: firms that borrow from weak and healthy banks may differ along other dimensions.

- Borrowers of weak banks are smaller, younger, have less liquidity, more bank debt, and worse credit history than borrowers of healthy banks.

- Selection on observables.

- Validate with two IV strategies.


- Exposure to euro-area wholesale funding markets? Exposure to euro-area sovereign debt?
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CONTROL VARIABLES

- Market demand variables: 50 province and 9 industry fixed effects.
  - Municipalities or finer industry detail?

- Financial variables: age, size, temporary employment ratio, ROA, bank debt ratio, short-term debt ratio, liquidity, own funds ratio.

- Loan history variables: number of previous loans, loan acceptance rate, previous defaults, current defaults, credit line indicator, number of banking relationships, ratio of uncollateralized loans.
Effect on employment largely through firm exit.

Causal effect of credit availability on employment very large.

Single bank firms may benefit from having a weak bank.
**FIRM EXIT AND THE EFFECT OF CREDIT**

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## Firm exit and the effect of credit

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- IV estimate: 10 percent increase in credit leads to 4.2 percent increase in employment.
- Evergreening: firms with large share of loans from single bank may benefit from a decline in the bank’s health.
**INTERPRETATION I: LATE**

- LATE says that estimated effect is valid for firms on the margin of receiving credit or having a loan approved (Imbens and Angrist 1994).

- Is the effect for this subpopulation the same as for other firms?

- Monotonicity assumption: access to credit always improves with lender health.
  - May fail if evergreening is strong enough.
  - Possible downward bias to results.
INTERPRETATION II: AGGREGATION

- Using baseline measure, 23 percent of employment in 2006 at treated firms.

- Baseline results suggest weak bank attachment reduces employment in 2010 by 3.2-6.2 percent.

- Total employment roughly 0.7 to 1.4 percent lower as a result of bank lending channel.

- A continuous treatment measure (e.g. fraction of total debt from weak banks) would help with aggregation.
INTERPRETATION III: GENERAL EQUILIBRIUM

- Cross-sectional estimation assumes no effect of weak banks on employment at firms attached to healthy banks.

- In general equilibrium:
  - product demand shifts from constrained to unconstrained firms, and real wages fall, causing labor demand at unconstrained firms to rise;
  - decline in aggregate demand reduces product demand at all firms, causing labor demand at unconstrained firms to fall.

- May amplify or dampen employment losses observed in partial equilibrium. (Chodorow-Reich forthcoming).
More to do
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- What’s the effect on output/revenue?
  - Do firms only eliminate excess labor, or do they also produce less?
  - Does productivity rise?

- Foregone profits bound the magnitude of switching costs necessary to make not finding a new lender an equilibrium outcome.

- Potentially a key moment for theoretical models of lending frictions.

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- More on the non-linearity from loan rejections and firm exit. Is there a role for policy in making lenders adjust on margins other than loan rejection?
(Even) more controls.

Continuous measure of treatment.

Heterogeneous treatment effects and LATE.

Other outcome variables, motivated by theory.

More on exit.