Discussion on "Loan Guarantees and Incentives for Information Acquisition" by David Stillerman

Ramiro de Elejalde
Central Bank of Chile

Workshop on Banking and Financial Stability, Central Bank of Chile

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Summary of the Paper 1/3

- Research Question: How do loan government guarantees impact lenders' incentives to acquire information about borrowers' credit risk?
- Institutional Background: U.S. Small Business Administration's (SBA) 7(a) Loan Program.
  - Eligibility: Small businesses that satisfy size standards set by the SBA and pass a *credit elsewhere test*.
  - Lenders: There are two types. Preferred lenders have autonomy in issuing loans, and non-preferred lenders must submit an application to the SBA (which decides whether to approve it or not).
  - Guarantee rates: 85%, but they increased to 90% between March 16, 2009, and May 31, 2010, and between September 27, 2010, and January 3, 2011 (high-guarantee periods).

Summary of the Paper 2/3

- Data: Loan-level data include information on loan conditions (interest rates, term, amount, percent guaranteed), borrower and lender characteristics, canceled applications (approved applications, canceled by the borrower), and repayment outcomes.
- Methodology I: Descriptive evidence/reduced form evidence

  Compares loan conditions and pricing in high- and low-guarantee periods.
  Key Findings: In the high-guarantee period, lenders issue more generous loans (lower interest rates, larger loans, and longer terms) and price risk less precisely.

Summary of the Paper 3/3

- Methodology II: Structural model
  - Borrower acceptance and default decisions.

  $\rightarrow$ Private information affects default and acceptance decisions (positively correlated).

  $\rightarrow$ Allows for adverse selection but rules out moral hazard in the borrower side.

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  Key Findings:

  → Results: i) Lenders choose noisier signals in high-guarantee periods, and ii) preferred lenders obtain less precise signals of borrower quality than their non-preferred lenders.

  → Counterfactual policy: Subsidy and 50% guarantee (vs 90% guarantee).
  - Increases the signal-to-noise ratio, which benefits the low-risks more.

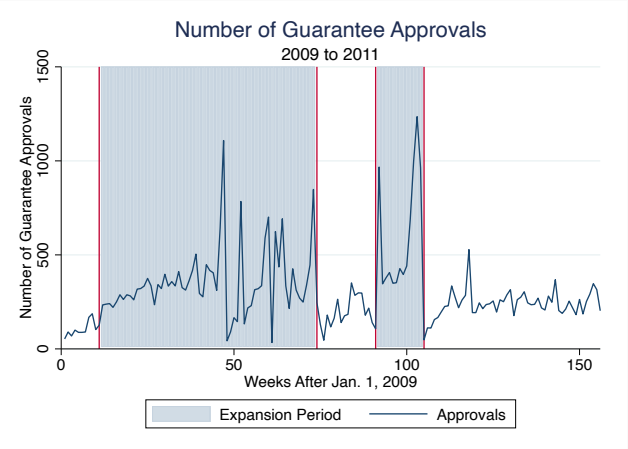
Discussion

- This is a beautiful paper.
- It is very polished, and it has a lot of work.
- It addresses a key issue: credit constraints for small firms. Government guarantees are widely used to ease this, but their full effects are not yet well understood.
- This paper analyzes a channel previously neglected in the literature: how government guarantees affect bank incentives to acquire information.
- When trying to solve the problem of firms' adverse selection, we may face a moral hazard from banks (and a fiscal cost).
- Bonus: Because there is a structural model, we can simulate the outcomes of alternative policies and propose changes to the current policy design.

Comment 1: Identification of information acquisition costs

- This is hard because we cannot directly observe bank investment to acquire information.
- The paper exploits the difference in correlation between prices and ex-post default in high- and low-guarantee periods.

Approvals



(a) Approvals

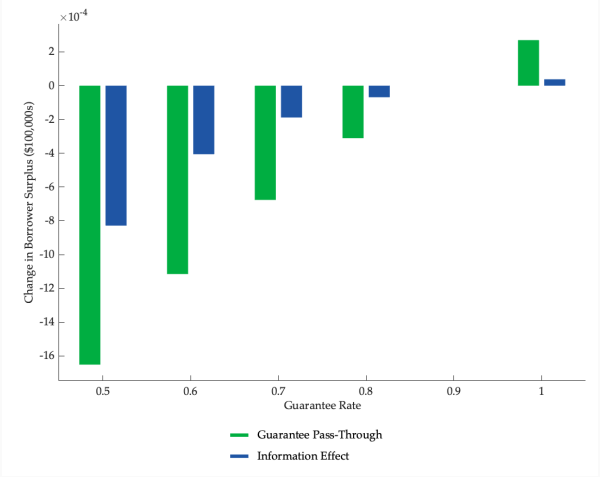
Comment 1: Identification of information acquisition costs

- My concern is that the pool of loans can change between the two periods and whether changes in this correlation can be attributed to changes to the pool of loans rather than banks pricing risk more precisely.
- To alleviate this concern, you could check for changes in borrower observables between the two periods (could you run an RD using weeks?).

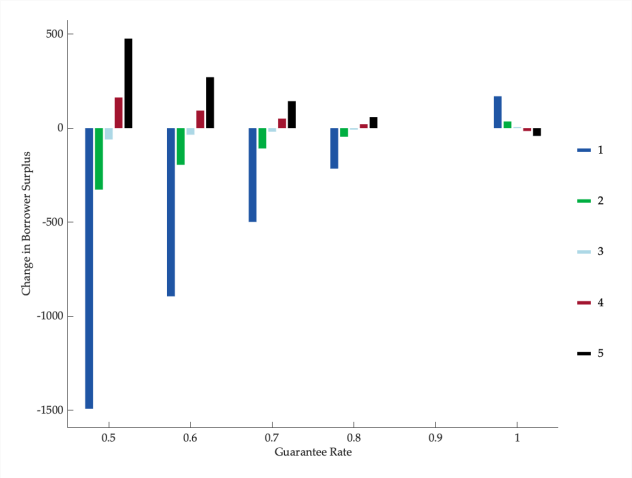
Comment 2: Prices

- This paper computes prices as the present-value equivalent for a ten-year loan.
- Prices are important in the paper because the correlation between prices and ex-post risk is key.
- As constructed, prices can change due to interest rates, maturity, loan amounts, or other characteristics.
- What is driving the variation in prices? Are the same factors important in high- and low-guarantee periods?
- As I understand, interest rates are capped so that other factors may drive prices more.
- To be clear, I do not think this is a threat to the paper, but it could help us understand the story behind banks' behaviors.

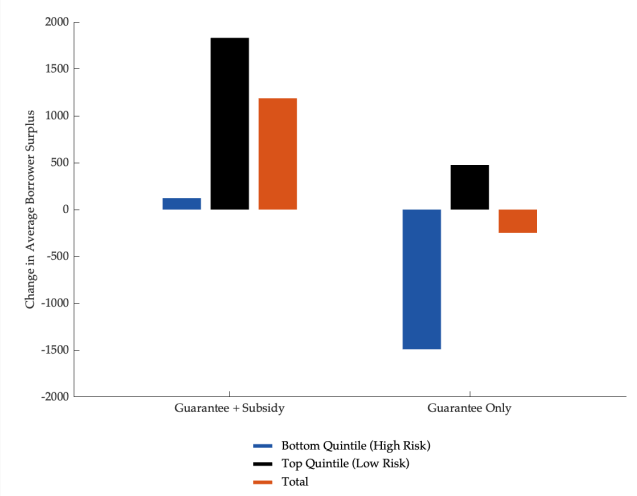
Comment 3: Policy implications.
1) Informational channel is important.



Comment 3: Policy implications.
2) Government guarantees favor high-risk borrowers.



Comment 3: Policy implications.
3) Subsidy and 50% guarantee (vs 90% guarantee) benefits more the low-risks.



(b) Borrower Surplus

Comment 3: Policy implications

- Can we extrapolate your results to other economies/contexts?
- A couple of factors to consider.
  - This is a program for the U.S. where firms have many financial alternatives (different from banks), so participating firms can be quite selected.
  - In practice, how important is the *credit elsewhere test*?
- Do you expect these results to differ during a crisis (Covid)?

Conclusion

- This is a beautiful paper.
- I enjoy reading it a lot.
- I hope there is more research on banks' moral hazard under government guarantees that can help us improve the design of this type of policy.

Thanks

Toy model

- Setup
  - Two types of firms: high-risk with probability $\frac{1}{2}$ and low-risk with probability $\frac{1}{2}$.
  - Let v_i be willingness to pay a loan and d_i be default probability.
  - High-risk firms are characterized by $\{v_H, d_H\}$ and low-risk $\{v_L, d_L\}$ with $v_H > v_L$ and $d_H > d_L$.

  $\rightarrow$ v_i and d_i are private information and positive correlated.
  - Bank profit from selling to type i.

  $\rightarrow$ Without credit guarantee: $\pi_i = p - d_i$

  $\rightarrow$ With credit guarantee: $\pi_i = p - d_i(1 - M)$

Equilibrium without credit guarantees

- Without information acquisition

$\rightarrow$ In equilibrium, bank chooses $p = v_H$ and only high-risk get loans.

$\rightarrow$ Adverse selection (lemons problem)

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- With information acquisition

  Suppose bank get a signal s_H such that $Pr(H|s_H = 1) = \frac{3}{4}$ and $Pr(H|s_H = 0) = \frac{1}{4}$.

$\rightarrow$ In equilibrium, bank chooses $p(s_H = 1) = v_H$ and $p(s_H = 0) = v_L$.

$\rightarrow$ Decreases information asymmetry and alleviates adverse selection.

$\rightarrow$ Prices are positively correlated with risk.

Equilibrium with credit guarantees

→ In equilibrium, bank does not acquire information (information effect) and chooses $p = v_L$ (guarantee pass-through).

→ Guarantee pass-through benefits low- and high-risk; information effect benefits high-risks (distributional effects).

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