Zombies at large? Corporate debt overhang and the macroeconomy

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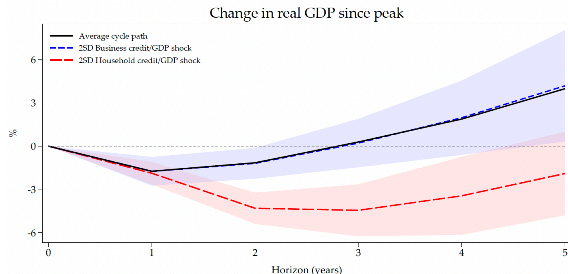
Motivation

- Extensive research on the macroeconomic effects of household debt
- Can corporate debt booms have similar negative output effects in case of a recession?
- Answer so far: mostly not (e.g., Mian, Sufi, Verner, QJE and JF)
- Authors reconfirm this finding

Figure 3: *Business and household debt, average and +2SD responses*



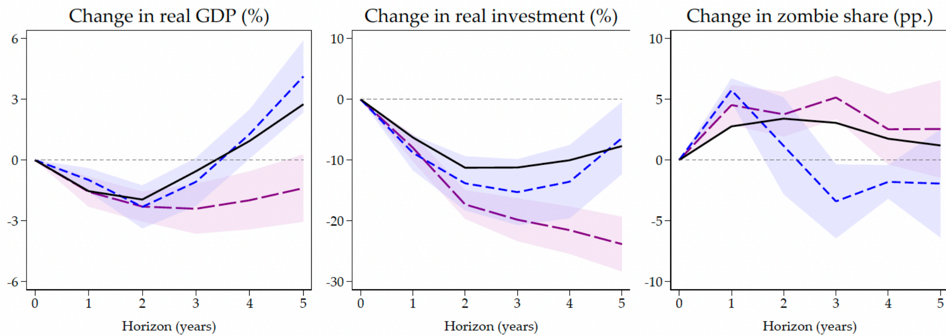
This Paper

- Reconfirm previous findings that - on average - recessions that are driven by household debt are more severe than recessions driven by corporate debt
  - Recessions preceded by household debt expansions are not only deeper, but are followed by significantly slower recoveries
  - Corporate debt driven recessions less severe and shorter
- Research question: *"For a recession preceded by corporate debt build-up, do frictions impeding business debt restructuring and liquidation deepen the recession or slow down the recovery?"*

The Role of Bankruptcy Institutions

- Household debt owed by individuals to smooth consumption whereas businesses lever up as legal entities for the sake of profits
- Incentives to renegotiate and restructure debt are very different
- Ability to renegotiate corporate debt can attenuate aggregate macroeconomic effects

Do Bankruptcy Proceedings Matter? Why?



What is the Role of Zombies?

- Title suggests that zombies are at the core of the paper
- Not fully convinced this is the case

"Poor creditor rights protection, or costly legal procedures can discourage or delay liquidation. These costs will affect the behavior of lenders at the margin, making them more likely to avoid the losses and keep insolvent zombie firms afloat. Inefficient liquidation increases the survival probability of zombie firms and their importance at the macro level."

What is the Role of Zombies?

1. Idea: Inefficient bankruptcy proceedings prevent lenders from pulling the plug on zombie firms
2. Prevents the default/exit of virtually insolvent firms $\rightarrow$ hinders economic recovery

- Agree on 2), not sure the authors do enough about 1); more evidence needed that 1) is a first-order effect
- Not clear whether negative macro effects documented by the authors are driven by zombie lending

What might drive banks' incentive to do zombie lending?

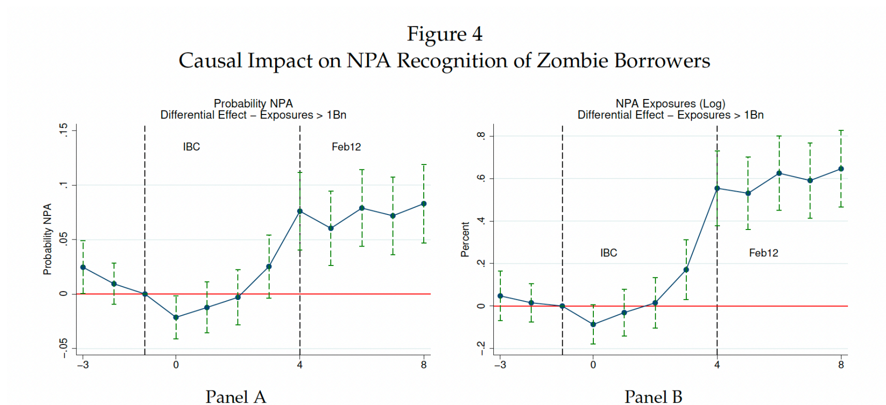
1) Ineffective creditor rights making bad loan resolution costly (Andrews and Petroulakis, 2019; Li and Ponticelli, 2019)
2) Weakly capitalized banks unwilling to provision for bad loans (Giannetti and Simonov, 2013; Bruche and Llobet, 2013; Acharya et al. 2019)
3) Governance frictions at government-owned banks encouraging them to continued lending to politically connected firms (Qu, 2018) and/or allowing the government to postpone costly bank recapitalization by avoiding loan loss recognition (Acharya, 2020)

→ Authors' focus seems to be 1); is this the most important channel?

Importance of Bankruptcy Proceedings: Evidence from India

- Efficient bankruptcy proceedings seem to be a necessary but not a sufficient condition
- Kulkarni et al. (2020) study the impact of a bankruptcy reform in India
  1) May 2016: Implementation of the Insolvency and Bankruptcy Code (IBC): prior to reform large bankruptcy cases took six years to resolve with recovery rates around 26%
     Post-reform, cases should be completed within 180 days → significant reduction in bankruptcy frictions
     Lenders made very limited use of new and more efficient bankruptcy proceedings
  2) Introduction of tighter supervision and reporting around delinquent borrowers on February 12, 2018

The Evolution of NPAs in India



Source: Kulkarni et al. (2020)

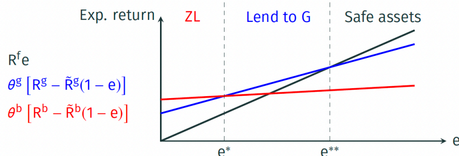
- Changes in bankruptcy code/creditor rights had virtually no impact on the recognition of zombie loans as non-performing

Limited Impact of Bankruptcy Rules?

Diabolical sorting of weak banks and weak firms

Proposition

- Banks with equity $e < e^*$ lend to a B borrower
- Banks with $e^* < e < e^{**}$ lend to a G borrower
- Banks with $e > e^{**}$ do not lend and invest in safe assets



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Source: Acharya, Lenzu, Wang (2021)

- Weakly-capitalized banks will continue lending to zombie firms, even if bankruptcy proceedings are improved
- Weak banks cannot afford losses from pulling the plug

Interpretation of Results: What is the role of the bankruptcy system?

- How does the efficiency of the bankruptcy system impact whether a corporate credit boom leads to a severe recession?
- Authors seem to (partially) point at a zombie channel
- Evidence so far is, however, not directly capturing zombie lending
- Even with highly efficient bankruptcy proceedings, weakly-capitalized banks will remain reluctant to stop lending to zombie firms
- Requires either targeted recapitalization (e.g., Giannetti and Simonov, 2013; Acharya et al. 2019) or supervisor intervention (Passalacqua et al., 2020; Bonfim et al., 2020)

Interpretation of Results: How do zombies reduce growth?

- Acharya, Lenzu, Wang (2021) provide theoretical motivation: "policy traps" play a crucial role
- Aggressive unconventional policy runs risk of introducing zombie lending: low-capitalization banks evergreen existing loans to low-productivity firms
- Dynamic setting: policy aimed at avoiding short-term recessions gets trapped into excessive forbearance
- Tries to avoid congestion externalities imposed by zombie lending on healthier firms
- Resulting economic sclerosis transforms transitory shocks into phases of delayed recovery and potentially permanent output losses

Interpretation of Results: Are we capturing zombies?

Results:

- Zombie definition focuses primarily on identifying weak firms (low interest coverage, low Tobin's Q)
- Results suggest that share of low-quality firms rises at the onset of a recession
- If recovery takes less time, share of low-quality firms decreases more quickly

Open Questions:

- Is this driven by zombie firms? Mechanism unclear
- Does performance of low-quality firms improve in the recovery? Then they are probably not zombie firms
- Do these firms default and exit the market?
- Do they obtain lending at subsidized rates (Caballero et al., 2008; Giannetti and Simonov, 2013; Acharya et al. 2019)?

Conclusion

- Important and interesting macro evidence on the role of bankruptcy laws for the severity of corporate credit boom driven recessions
- Exact channel - and thus policy conclusions - still not entirely clear
- Efficient bankruptcy proceedings shorten recovery after recessions
- Whether this is driven by zombie firms needs more in-depth analysis