

# **Pandemic in financial system and liquidity emergency by J. Idier and T. Piquard**

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# Summary

- A very nice project that contributes to the growing literature that tries to map the propagation of shocks through the financial system
- Two existing approaches in the literature:
  - Posit a contagion channel (e.g. fire sales) and calibrate using balance sheet data (common exposures)  
Greenwood, Landier, and Thesmar (2015); Duarte and Eisenbach (2015)
  - Use co-movement in equity returns or CDS spreads to indirectly capture different contagion channels  
Acharya, Pedersen, Philippon, and Richardson (2011)
- This paper explicitly models multiple propagation channels simultaneously. The framework can be used
  - for a comprehensive quantitative exercise
  - to disentangle the contribution of different channels
  - to evaluate alternative policies

# Comment 1: The fire sales channel

- Previous papers have focused on the fire sales channel alone
- Glasserman and Young (2014) show that direct exposures and pure counterparty domino effects are unlikely to be as quantitatively important as contagion through assets
- By degrading collateral values, fire sales impose a cost on the financial system that is not internalised by financial institutions; this (pecuniary) externality justifies macro-prudential regulation
- How important is this channel in the model?

## Comment 2: Interbank market runs

- The authors introduce the interbank market that plays 2 roles:
  - leverage constraint, similar to Greenwood et al. (2015)
  - interbank exposures
- One view of the financial crisis: run on the money markets  
e.g. Gorton and Metrick (2009)
- Coordination problem rather than domino effect
- Is this the right framework to think about the interbank market freeze?

## Comment 3: Default and threshold effects

- Relative to e.g. Greenwood et al. (2015), who model deleveraging dynamics, the paper introduces bank defaults
- In the model defaults have an effect in addition to direct losses: asset liquidation and an (exogenous) shift in asset correlations
- Perhaps not surprising the model exhibits "threshold effects"

## Comment 4: Policy implications

- It will be interesting to understand the effect of the following policies in the framework proposed by the authors
- Bank mergers: can increase the interconnectedness through common exposures but perhaps limits the likelihood of default
- Selective ("optimal") capital injections to increase the cost-effectiveness of interventions
- Optimal timing of interventions?

# Conclusion

- A very promising project!