

Discussion of  
*A model of a systemic bank run*



Harald Uhlig

Discussion by  
Robert Marquez  
Boston University

# Motivation

---

- Financial crisis of 2007 and 2008 has features that resemble a classic bank run
- However, existing theories (e.g., Diamond and Dybvig, 1983) do not apply directly
  - Runs during crisis seem to have been on *core* banks (i.e., institutions providing banking services to other banks)
- A new framework is called for

# “Stylized facts”

---

1. Banks ran on other (core) banks
2. Banks that were in trouble held their portfolios in asset backed securities (ABS)
3. These ABS were traded on markets
4. Seems that there was no shortage of investors willing to trade
  - Evidence drawn from demand for new US government bond issues
5. BUT, prices at which investors were willing to purchase were low
6. The larger the market share of the banks that were in trouble, the lower the price (“deepening” of crisis)\*

# What emerges

---

- Two models of runs on core banks
  - Model with uncertainty aversion
  - Standard model with adverse selection
  
- Both have appealing features, but the first one, with investors that are uncertainty averse, matches stylized facts better
  - In particular, it matches item #6, while adverse selection model delivers opposite conclusion

# Structure for comments

---

1. Small comment on need for intuition, better understanding of applicability
2. Small comment on one technical aspect I couldn't quite decide on
3. Comment on choosing between the two models

# When does a systemic bank run occur?

---

- In model with uncertainty aversion, you can get a *systemic* run under some conditions
  - Systemic run: More local banks withdraw when it is known that aggregate liquidations will exceed the cash in the hands of expert investors
- This is an important result, but paper does not shed much light on when it is likely to occur
  - What conditions do we need on the primitives of the model for such a run to be likely?

# Technical detail

---

- Model has two states: “boom” and “bust”
  - All the action comes from the bust state
  - Investors make decisions at time 0
  - State is revealed at time 1
  
- Probability of bust state is vanishingly small
  - Allows for decisions to be made initially (at time 0) that essentially ignore this state
  - Bank run analysis is then conditional on the bust state occurring

# Comment on technical detail

---

- This seems to work fine for the standard adverse selection model
  - If probability of state is  $\epsilon$ , then letting  $\epsilon \rightarrow 0$ , at time 0 investors would maximize essentially ignoring this state
  
- But is this consistent for model with uncertainty averse investors?
  - Are the local banks themselves subject to uncertainty aversion? Who owns these banks? How would this be resolved in general equilibrium?



# Uncertainty aversion vs. adverse selection

---

- In the paper, adverse selection model predicts that the bigger the market share of the distressed banks, the smaller the discount on sale of assets
  - The crisis lessens rather than deepens
- How robust is this result, even within class of standard adverse selection / information asymmetry models?

# Other possibilities? *A story for individual institutions*

---

- Investors expect larger financial institutions to be more diversified
  - Have more liquid assets they can sell
- When a large FI is in trouble, this is a very strong signal that the shock it received must have been extremely large
- Therefore, the larger the FI in trouble, the bigger the discount required

# Yet another: A story based on the number of institutions

---

- Suppose that return on all core banks' portfolio of ABS is correlated, but not perfectly
  - For instance, there may be a systematic component, and an idiosyncratic component that reflects physical location of bank, or types of investments it favors
- The more banks that are in trouble (i.e., the larger the market share of the institutions in trouble), the stronger the signal that the systematic shock was negative
  - Or that correlation structure is higher than anticipated
- In this case, we would again get that the larger the market share, the deeper the crisis

# Conclusion

---

- Very interesting and timely analysis
- Fills a gap in existing literature
- May need a somewhat broader approach in order to evaluate policy implications