Discussion of:

# *Money Runs*

by J.R. Donaldson and G. Piacentino

Todd Keister
Rutgers University

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# The standard view

- A bank run occurs when depositors fear the bank will fail
  - "fail" = depositors who wait to withdraw will receive less
  - could happen because of losses on the bank's assets (e.g., Allen & Gale, others)
  - and/or because withdrawals by other depositors force some assets to be liquidated (e.g., Diamond & Dybvig)
- Because bank liabilities are money (i.e., facilitate exchange)…
  - … a bank run can disrupt trade and real economic activity
  - e.g., Friedman & Schwartz (1963) on the Great Depression, Sanches (2017; "Banking Panics and Output Dynamics")

Bank run $\Rightarrow$ Monetary collapse

# This paper

- We know monetary exchange can also be fragile
  - value of accepting money today depends on who will accept it from you in the future
  - can have a self-fulfilling collapse in the value of money
- If a bank's liabilities will no longer be accepted in exchange …
  - … its depositors might want to withdraw → run on the bank
  - even if they are not worried about the bank failing
  - if people stop accepting debit cards issued by my bank …

Bank run ⇐ Monetary collapse

"money run"

- Story sounds very straightforward, but …
  - there's more to the picture

## My plan:

- Highlight some key features of the model
  - subtleties missing from my one-slide summary
- Comment on:
  - Interpretations
  - Evidence

# 1) Monetary collapse

- A collapse in the value of fiat money is easy to understand
  - if no one will take this worthless piece of paper from me later on
  - then I will not give up anything for it today
- But bank liabilities are not fiat money
  - and the bank's assets are sound here, by assumption
- Which means someone *will* pay a positive price for the note when I want to sell
- Which means that the note does circulate after all

  ⇒ there should be no monetary collapse
- Something more is needed

- Key assumption: new creditors must pay a fixed cost $k$
  - before they can enter negotiations with current debt holder
  - gain from buying the asset must exceed $k$
- If I expect no future creditors to pay the fixed cost …
  - … and the expected benefit of holding to maturity is $< k$
- Then it is optimal not to enter and the note does not circulate
  - coordination failure in the market entry decision
  - echoes of Diamond (1982)
  - and models of exchange with commodity money?

# 2) Redeemability

- In my simple telling of the story, there is an easy solution:
  - don't issue demand deposits (redeemable debt)
- In Diamond-Dybvig models:
  - depositors must withdraw from the bank in order to consume
  - assumptions on environment such that they cannot trade their claim on the bank for goods, etc. (Wallace, 1988)
  - or perhaps that sellers would redeem the banknote right away
- But if bank liabilities circulate widely enough …
  - debt holders can directly exchange them for goods as needed
  - no need to make the claims demandable

  ⇒ no bank runs

- Key assumption: exchange with bank liabilities involves bargaining
  - agents' outside options matter for the resulting price
- Redeemable debt gives the note holder an outside option
  - raises the price she receives from the bargaining process
  - allows bank to issue notes at a higher price
  - bank then hopes redemption lies off the equilibrium path
- Novel reason for issuing demandable debt
- Should all debt then be demandable?
  - no, for a couple of reasons …

# 3) A tradeoff

- In designing its liabilities, the bank faces a tradeoff
- Want the debt holder to get a good price when she sells
  - so that she is willing to pay more for the debt at issuance
  - set the redemption value (→outside option) high
- But also want the debt to circulate
  - need the resale price to not be too high
  - so that future creditors are willing to pay the fixed cost to enter
- Interesting security design problem
  - demandability is not always good
  - sometimes the bank does better issuing a tradeable bond

# Comments

# Comments

- The fact that bank liabilities circulate is clearly important for thinking about financial stability
  - and deserves more attention than it has received in the literature
- The "money run" mechanism is new, and interesting
  - as is the rationale for demandable debt
  - the paper brings these ideas together in a clean way
  - and shows there are interesting interactions, implications
- I will comment briefly on:
  1. Interpretations
  2. Evidence

# 1) Interpretations

- What is this a model of?
  - paper offers two interpretations
- 19th century note-issuing banks
  - seems straightforward to interpret the model in this case
- Repo arrangements
  - but it is less clear to me how this maps into the model
  - suppose Lehman Bros. is repo-ing out U.S. Treasuries
  - is Lehman the issuing bank in this case? Or is the U.S. govt.?
  - this could be laid out in (much) more detail in the paper
- I think the interpretation matters for evaluating the paper

# 2) Evidence

- The mechanisms in the model are clear
  - but it would be reassuring to see evidence of them in action, even if anecdotal in nature
- Is there any direct evidence of a money run?
  - that is, a run on some intermediation arrangement ….
  - … that occurs <u>because</u> the arrangement's liabilities have stopped circulating?
- For 19th century banknotes, the paper offers a tantalizing quote:

  *"the bank note that passed freely yesterday was rejected this morning*."

- But the full quote reads:

  "*a list of more than thirty failed banks, located in this State, was to be seen daily in our newspapers … The merchant, the mechanic, the grocer, and the butcher … began business in the morning by examining what broken banks had be added to the list of yesterday; and their customers found that the bank note that passed freely yesterday was rejected this morning.*"
  (from 1858; taken from Gorton, 2012)

- Sounds like the standard view: when a bank failed, its notes stopped circulating
  - surprising thing: why did the note pass freely yesterday?
- What about an example involving repo?
  - maybe, but I wouldn't even know where to look …

# Indirect evidence

- The monetary collapse and bank run occur at the same time
  - may be difficult to sort out which came first
- Another approach: look for indirect evidence
  - find events that are inconsistent with the standard view
  - but could be explained by the money-run view
- Here: run need not reflect any loss of confidence in the bank
  - could occur even if the bank's creditors are fully secured
  - or even with credible deposit insurance in place
- Do we observe runs on such arrangements?
  - maybe, but I would like to be convinced

- 19th century banknotes were backed by state bonds
  - but state bonds were not always sound assets
  - if bank fails and bonds are sold, may take time before notes can be redeemed
  - some states had deposit insurance schemes
    - how credible were they? and how successful?
- For the repo interpretation:
  - repo is fully secured, bankruptcy remote
  - and there is a literature about the “run on repo”
  - are the observed patterns consistent with the model?
  - would need to need to map out model’s predictions for repo markets in more detail

# Bottom line

- Nice paper
- Presents an interesting model
  - offers a different view of why banks issue demandable debt
  - and of what can cause a run on a bank
- Has some novel policy implications
  - to promote banking stability, don't worry about the bank …
  - focus instead on preventing collapses in exchange
- Would like to understand better where to apply these insights
  - substantial gain from making the repo interpretation of the model here more explicit