

KNOWLEDGE AND LIQUIDITY

Tano Santos
Columbia University

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I. Public knowledge - Private knowledge

- The increasing complexity of financial markets have led to, perhaps surprisingly, less sophisticated markets, to **dumb** markets:
 - Conduits such as CDOs that are mechanical in their actions.
 - Collateral rules that mechanize liquidity needs and that lead to collateral runs.
 - Indexation of portfolio policies to credit ratings established by third parties.
 - Little discretion by agents other than origination and liquidation.
 - Accounts of securitization process read like accounts of assembly lines.
- Public knowledge and private knowledge are **substitutes**:
 - What does the Fed (or the Treasury) know and when does it know it?
 - Need to think about the information we want to give the Fed in the context of what we want the Fed to do in terms of financial stability.
 - Limitations of the Fed: Can the Fed act on all the information it has?

II. How knowledgeable are private institutions of the risks they face?

(A) Opacity

- The opacity of the instruments is precisely their source of liquidity.
- But it also makes difficult the assessment of the risks they represents.
 - Think of a CDO²!
- How do institutions understand the risks embedded in a particular design?
 - Potentially poorly but one does not want to be left out of the game.
- Like much in life it is all about dancing
 - ” As long as the music is playing, you’ve get to get up and dance. We’re still dancing.”
Ch. O. Prince (former Citigroup CEO)

(B) Low incentives to monitor counterparties

1. Moral hazard

- Public interventions to ease stress in the market give low incentives to monitor.

2. Collateral and marking to market as a substitute for knowledge

- When I have a fully collateralized position against a counterparty, why do I need to know much about that counterparty?
- Increasing complexity of counterparties' balance sheets decrease returns to knowledge acquisition and increasing collateralization is a natural response.
- Extensive collateralization and daily marking to market can lead to increases in demand for short term financing: Lethal when there is already a severe maturity mismatch.

(C) The impact of derivatives on knowledge acquisition

- A lender has an incentive to learn about the credit quality of the borrower.
- Balance sheets of counterparties have become increasingly complex: Thus it has become more costly to assess counterparty risk.
- CDS removes incentives to learn about the borrower as one substitutes the credit quality of a “complex name” for that of the seller of protection, say AIG.
 - Notice that AIG may have a better “technology” or expertise to evaluate the risks on which they are selling protection.
 - Nothing wrong with this if risk management at AIG is sound.
 - In the event of problems on AIG a repository of knowledge about insured risks in the CDS market disappears.

III. What does the Fed know and when does it know it?

(A) The timing of the liquidity provision

- Liquidity crises have a particular sequence and the timing of the public liquidity can be key for the efficient resolution of the crisis.
- Here we refer to the liquidity provided by the Fed via collateralized loans and also by the Treasury by outright purchases of distressed assets.
- In recent work Bolton, Santos and Scheinkman (2008) emphasize that the Fed's timing of the liquidity provision is key.
- A liquidity crisis evolves and deepens as adverse selection becomes more severe.
 - If public liquidity is provided too early or too late it destroys the incentives of the private sector to shed assets, thus worsening liquidity problems.
 - It has to be provided at exactly the right time.
 - But how does the Fed determine the timing of liquidity injections?

- Uncertainty over the provision of liquidity detrimental to the resolution of the crisis. From the WSJ:

Friday is the deadline for banks – however that word is now defined – to apply for cash from the \$700 billion Troubled Asset Relief Program. Treasury Secretary Henry Paulson sold TARP two months ago as a clearinghouse for toxic credit assets such as mortgage-backed securities. It has since morphed into a capital till for banks and, on Wednesday, a credit backstop for consumers.

...

Along the way, any pretense TARP would actually relieve holders of troubled assets withered. But apparently some investors still clung to the notion

...

Hopefully the last scales have fallen from investors' eyes about TARP's ability to heal banks and credit. The painful downside is that the TARP switcheroo has made matters worse for banks that held assets waiting for a TARP rescue and now must sell them in a far worse market and economy than two months ago.

- By offering to acquire (or repo) assets later on:
 - Institutions in distress have an incentive to delay liquidation: postponement of resolution.
 - Diminish the returns of those carrying cash to acquire assets at depressed values.
 - If private parties are to carry “cash” to provide liquidity in crises it has to be

$$\text{Price} < \text{Expected discounted cash-flow}$$

- That is, crises have to be nasty if one wants to rely on private liquidity to solve them!
 - * Implications for marking to market.
- That is why the “political economy” of crises resolution is so complicated:
 - * Knock, knock, knocking on the Fed’s door.
- Letting institutions make money in bad times by acquiring assets in distress is good: Protect incentives of private institutions to carry cash!
- Forced liquidations may be better than the permanent provision of public liquidity.

(B) Does the Fed know whether the crisis is one of liquidity or insolvency?

1. From liquidity to insolvency

- Canonical examples: Bank runs and international debt crises
- Regulatory repairs: Narrow banking, banking holidays, suspension of convertibility, deposit insurance, international lender of last resort (IMF).
- Liquidity provision is in this case “mostly good.”

2. From insolvency to liquidity

- The problem in many liquidity crisis is that at the origin there is a solvency issue.
 - a. **Concentrated insolvency:** LTCM (but in the context of a larger crisis)
 - Liquidity policy: Mix of targeted intervention with “blanket” liquidity provision is potentially beneficial.
 - b. **Widespread insolvency:** Current crisis
 - Liquidity policy: Flood the market with liquidity

(C) Knowledge and public liquidity provision

1. Fragmentation of knowledge and liquidity provision

- If the Fed is to be the provider of liquidity the Fed should have continuous time knowledge of the balance sheet of regulated entities.
- Importantly though in the current crisis the balance sheet of supervised institutions only conveyed a partial view of the overall health of the financial system.
 - AIG or Bear (regulated by SEC) as a surprise to the system.
- Fragmentation of the knowledge about the balance sheets of all relevant financial institutions leads to problems when liquidity provision is concentrated in the entity in charge of bank supervision.
- Complexity of markets makes the *narrow* supervision mandate of the Fed obsolete given that it has a *broad*, implicit, mandate to ensure stability of financial system.

2. Public liquidity and signaling

- When the Fed suspects insolvency, should it provide liquidity?
- Example: Clearinghouses in XIXth and XXth century US banking
 - Clearinghouses as a private mechanism to generate emergency liquidity and as information repositories with the right incentives: Strong incentives by member banks to be informed about each other's state.
 - Clearing houses had enough information on the balance sheet of member banks (and other institutions) to assess the risks that any member posed to the whole system.
 - Insolvent member banks kicked out of the clearinghouse which constituted the signal of insolvency that lead to runs.
- Now
 - The Fed is the only repository of information but cannot be seen to “take sides:”
Difficult for the Fed to act so blatantly
 - Potential Result: The Fed may not be able to effectively use what it knows to inform its liquidity policy because of signaling considerations.