Lessons from the Credit Crisis

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The Crisis Involves many Interrelated Issues

- New and Old Forms of Intermediation
  - Commercial Banks, SIVs, CDOs, I-Banks
- It is as a short-term debt crisis
  - Asset Backed Commercial Paper (with backup lines of credit)
  - Short-term demandable customer claims on Bear Stearns and Lehman Brothers
  - Short-term debt of other banks and I banks.

The Financial Crisis of 2007-10

- What was the shock/policy that started it all?
  - US and later European House Prices (rise and fall)
  - Poor Incentives in Investment and other banks
    - Securitization
  - US monetary policy 2003-2006 and the global savings glut
- Why a crisis?
  - Short-term debt
  - Losses cause rapid de-levering to avoid a run and fears of this happening.

The Crisis: (Amplification)

- Losses in value of highly levered financial institutions financed short-term.
- Why were these assets on the books of financial institutions with very high short-term leverage?
  - Incentives
  - Poor US Monetary Policy, 2003-2005 (see Diamond Rajan (2008)).
  - Regulatory Arbitrage

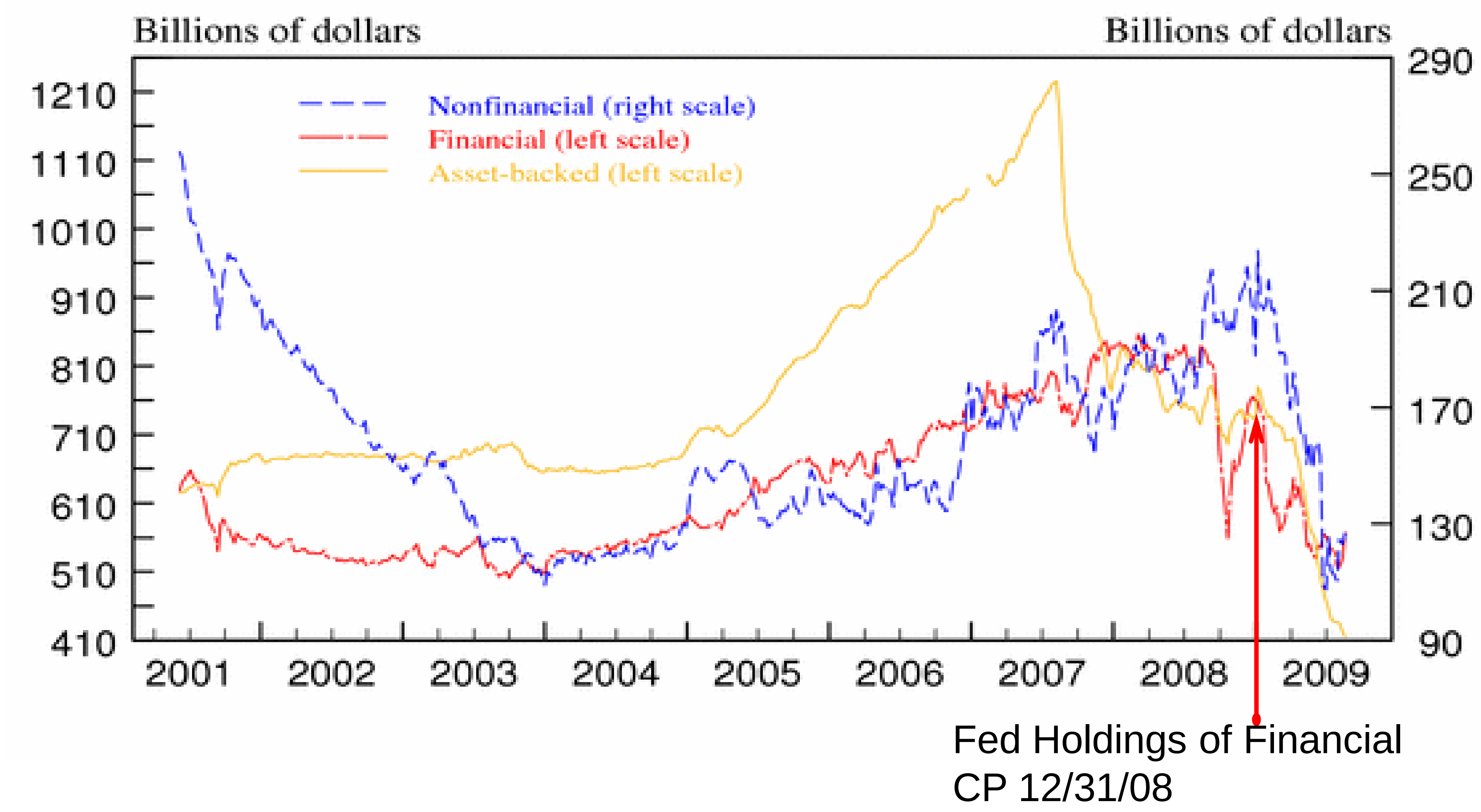
I-Banks Got it Wrong: Poor Incentives and Tail Risks

- UBS: buy 2% default coverage of Super Senior sub-prime CDO makes it risk free!
- More generally, bonus pools are short-term "dividend payouts" which provide incentives to generate profits that will reverse over longer terms, such as taking "tail" risks.
- One "tail risk" is financing with too much short-term debt.

The current crisis is like all others

- Financial crises are everywhere and always due to problems of short-term debt (and to the reasons why short-term debt is needed).

US Commercial Paper Outstanding: A Funding Crisis



Rapid De-levering: Fire sale prices

- When I Banks, Banks and even “margin called” hedge funds must sell assets rapidly, they can depress the price if asset is illiquid.
- This occurs even more if a run on them is underway.
- Diamond-Rajan (2005, 2009).

Short-term debt (why is causes crises and is used anyway).

- Runs if any significant chance of future losses.
- This can be self-fulfilling if assets are illiquid.
  - Runs cause and are caused by liquidity problems
- The threat of runs can be a source of external discipline to banks/ I banks , ex ante. It makes short-term debt a cheap source of funds.
- There is an incentive to use too much short-term debt in the aggregate.

Two way link between Insolvency and Illiquidity

- Runs make financial crises be very rapid and contagious once capital is low or panic sets in.
- Banks that are experiencing runs MUST dump assets for less than they are worth.
- Fire sales caused by runs.
- FEAR OF FIRE SALES in the future makes BUYERS unwilling to pay full price today.

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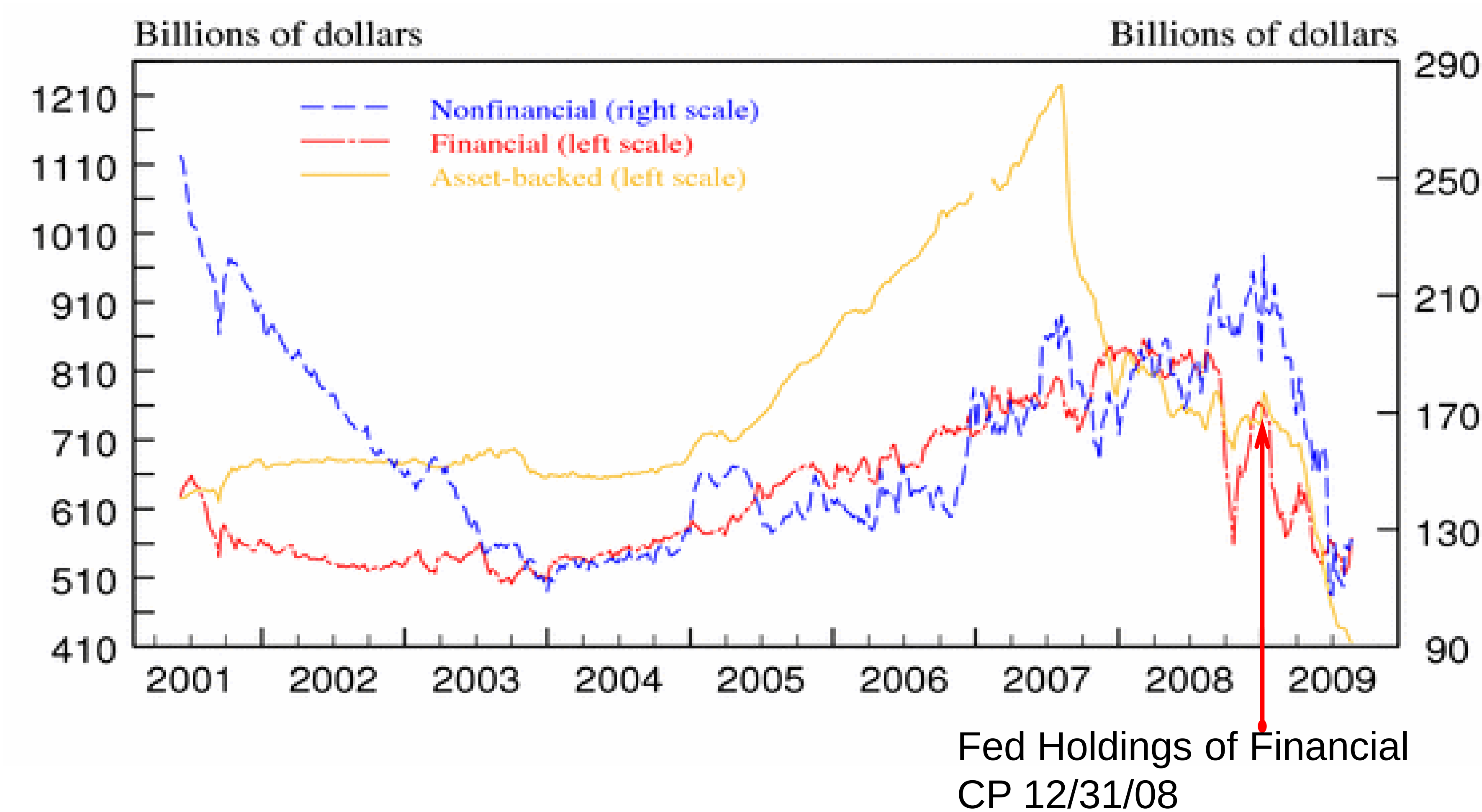
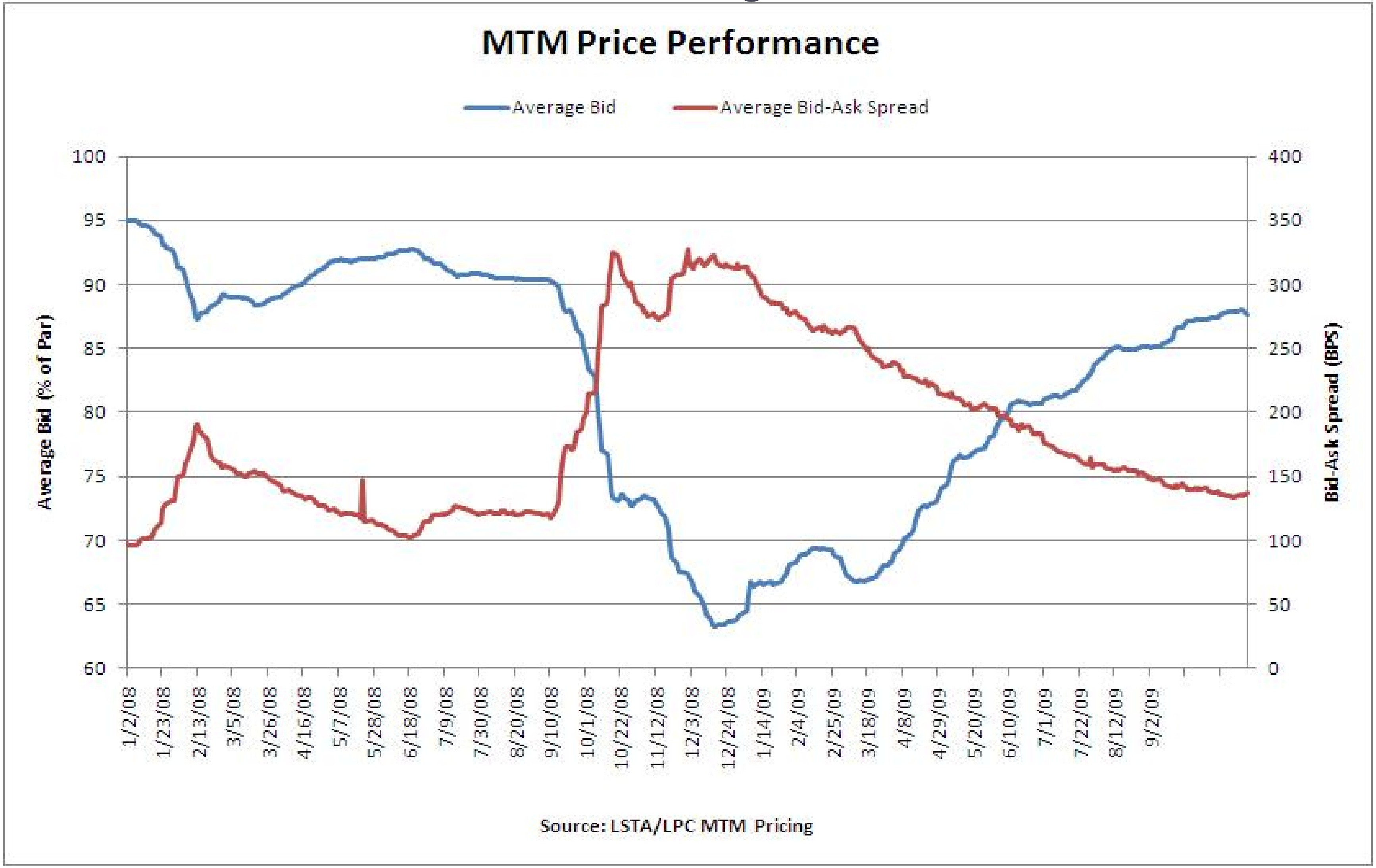


S&P/LSTA U.S. Leveraged Loan 100 Index



Lessons for policy

- Financial Regulation has been misguided and needs to avoid *excessive* short-term debt.

- Because central banks lower interest rates and provide liquidity during any liquidity crisis, banks will choose to fund illiquid assets with too much short-term debt *unless central banks avoid rates that are too low in quiet times (central banks should smooth rates).*

Incorrect focus of regulation

- Existing capital regulation looks at protecting creditors or the deposit insurance fund and not avoiding systemic risk due to runs.

Squam Lake Working Group Proposals

- Presents several proposals for regulatory reform.
  - Increased Disclosure
  - Capital regulation (linked to debt maturity, size etc.)
  - Improved failure resolution with debt that converts to equity in crisis (Regulatory Hybrids).
  - More…
- www.squamlakeworkingroup.org

Regulatory Hybrid Securities (Squam lake proposal)

- A form of Contingent Capital
- Long term debt that converts into equity at lagged market prices based on a “Double Trigger”

1. Low capital of a bank (e.g., a blend of market and book measures)
2. A Regulatory Declaration of Low Aggregate Bank Capital or a Systemic Crisis

Why a double trigger?

- Aggregate Capital matters and in addition, if there is a crisis, more aggregate capital is needed.
- Want to avoid “death spiral” problems if tied to directly to the stock price of a bank.
- Limit regulatory discretion if aggregate bank capital is low (make the second trigger automatic then).

Why Contingent Capital?

- Raise capital requirements without killing the important role of debt in bank incentives.
  - Better than narrow banking or 50% capital requirement.
- Allow banks to get “pre bailed out” in times when the market is supplying easy funding to banks.
- Avoid bailout of the too interconnected to fail.

The current crisis is like all others

- Financial crises are everywhere and always due to problems of short-term debt (and to the reasons why short-term debt is needed).
- The trick is to find the short-term debt.
- Find the first come- first served element that causes runs.

Find the first come- first served: "Find the Short-term debt"

- East Asia, 1997: short-term foreign debt.
- LTCM/ Russia 1998: Margin loans of LTCM
- Stock Market Crash/ Reversal 1987.
  - Delays in order processing prevented real time orders and information
- Bank runs in 1930's.
  - Demand deposits.