Monetary Economics
Regulation of the Financial System

with Special Reference to The Federal Reserve System

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Readings

- Purposes and Functions
  - Read Chapters 1-3 carefully
  - Chapter 5, Supervision and Regulation
- Modern Money Mechanics
  - Broad outline, not details about various factors
- Next time : The Financial Crisis of 2007-2008 in Fixed Income Markets by Dwyer and Tkac
  - On website
  - Please ask if you don't understand something

Federal Reserve and Regulation

- The Federal Reserve examines and supervises member banks, bank holding companies and selected other firms
  - A bank holding company is a company which owns one or more banks

Financial Stability Oversight Council

- The Financial Stability Oversight Council (FSOC)
  - Created by Dodd-Frank, passed after the Financial Crisis of 2007-2008
  - Has a mandate to
    - Identify risks to the stability of the financial system
      - Recommend actions to agencies
      - May be able to impose solution – has not happened
    - Identify non-bank financial firms that could pose a risk to the stability of the financial system
      - They then are supervised and regulated by the Federal Reserve
      - “Systemically important” – “SIFIs”

Voting Members of FSOC

- Chaired by the Secretary of the Treasury
- Members
  - Chairman of the Board of Governors of the Federal Reserve System
  - Comptroller of the Currency
  - Director of the Bureau of Consumer Financial Protection
  - Chairman of the Securities and Exchange Commission
  - Chairman of the Federal Deposit Insurance Corporation
  - Director of the Commodities Futures Trading Commission
  - Director of the Federal Housing Finance Agency
  - Chairman of the National Credit Union Administration
  - An independent member with insurance expertise appointed by the President and confirmed by the Senate

Systemically Important

- Large commercial and investment banks
- Nonbank financial firms
  - American International Group, Inc. (AIG)
  - GE Capital
  - Prudential Financial
- Financial utility firms
  - Clearing houses
  - Chicago Mercantile Exchange

FSOC and Money Market Funds

- Run on prime money market funds in the Financial Crisis of 2007-2008

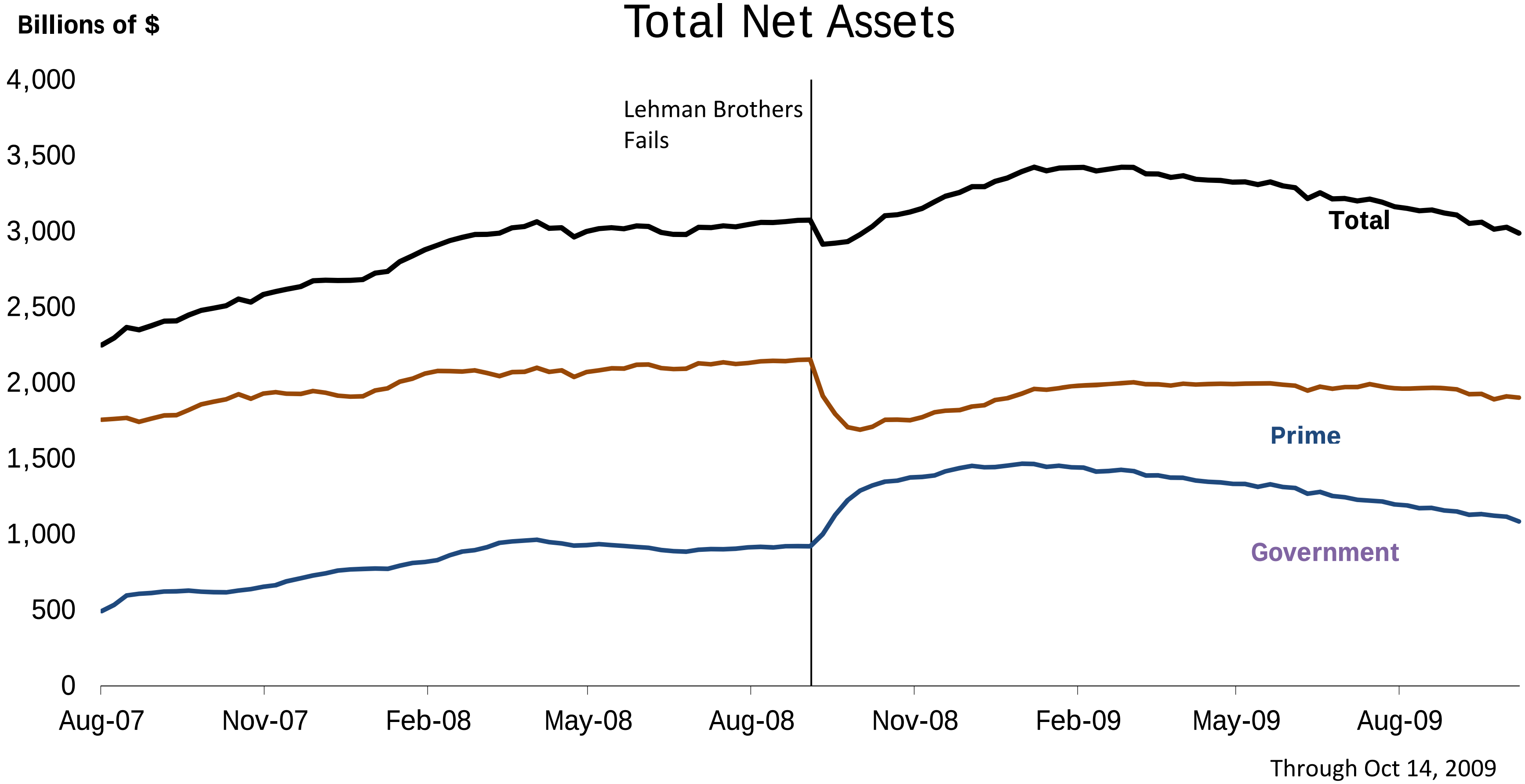
The Run on Money Market Funds

- Money market funds in the U.S. do not guarantee a net asset value of $1 but they have provided it in practice since their inception in in the 1970s
- Reserve Primary Fund's Net Asset Value was announced as $0.97 on September 16, 2008
  - Institutional investors had run on the fund, increasing the fall in value of remaining investments
  - Institutional investments fell by $25 billion on September 15 alone

Really Same as Run on Banks

- Banks promise to pay back deposit in currency on demand
- Banks hold fractional reserves of currency
- Suppose no deposit insurance
- If you’re worried about the value of your deposit, you go to the bank and get its value in currency
- Called a bank run
- Very sensible behavior for everyone involved

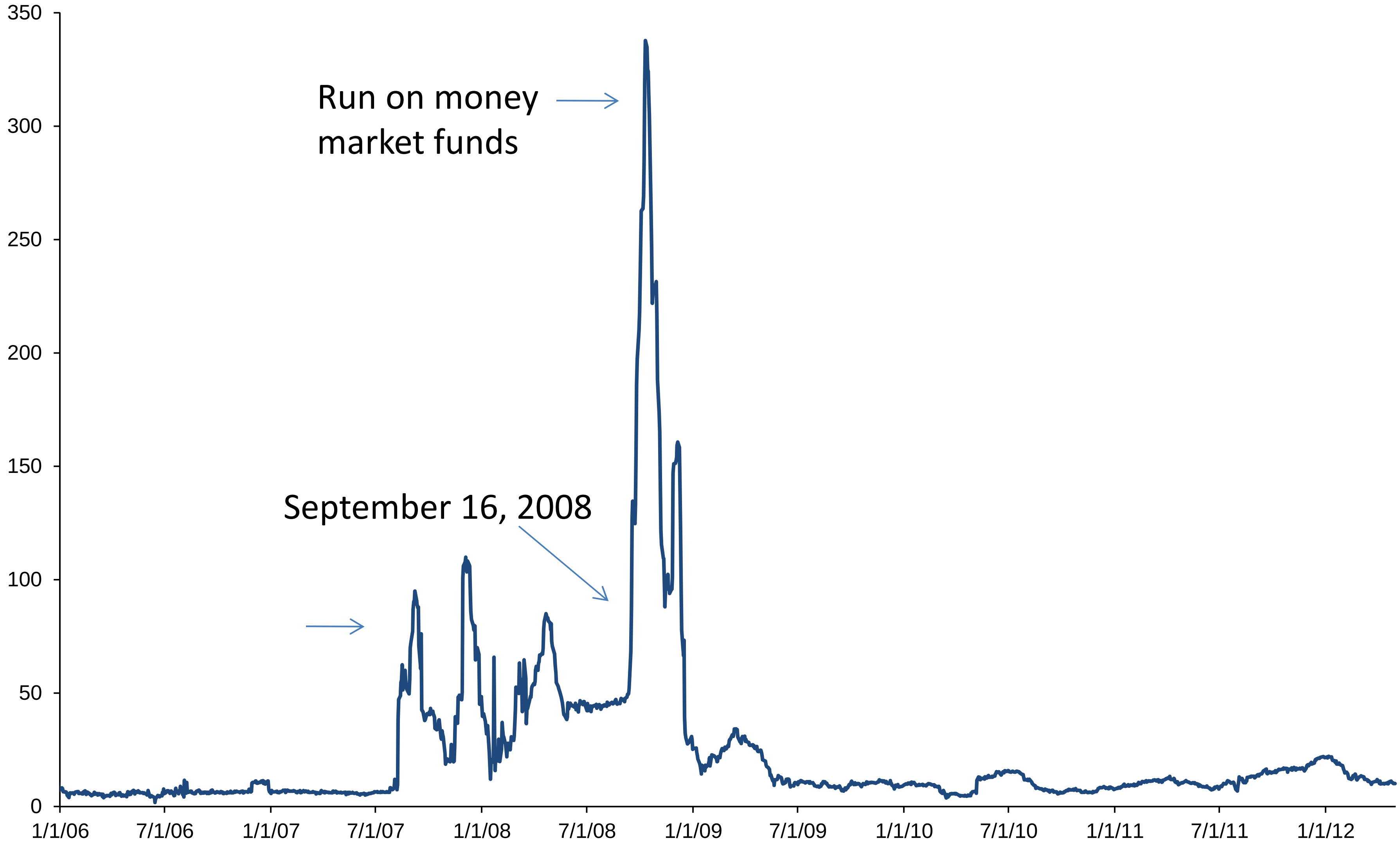
Taxable Money Market Mutual Funds
Total Net Assets



Source: Investment Company Institute

LIBOR less OIS - 30 days

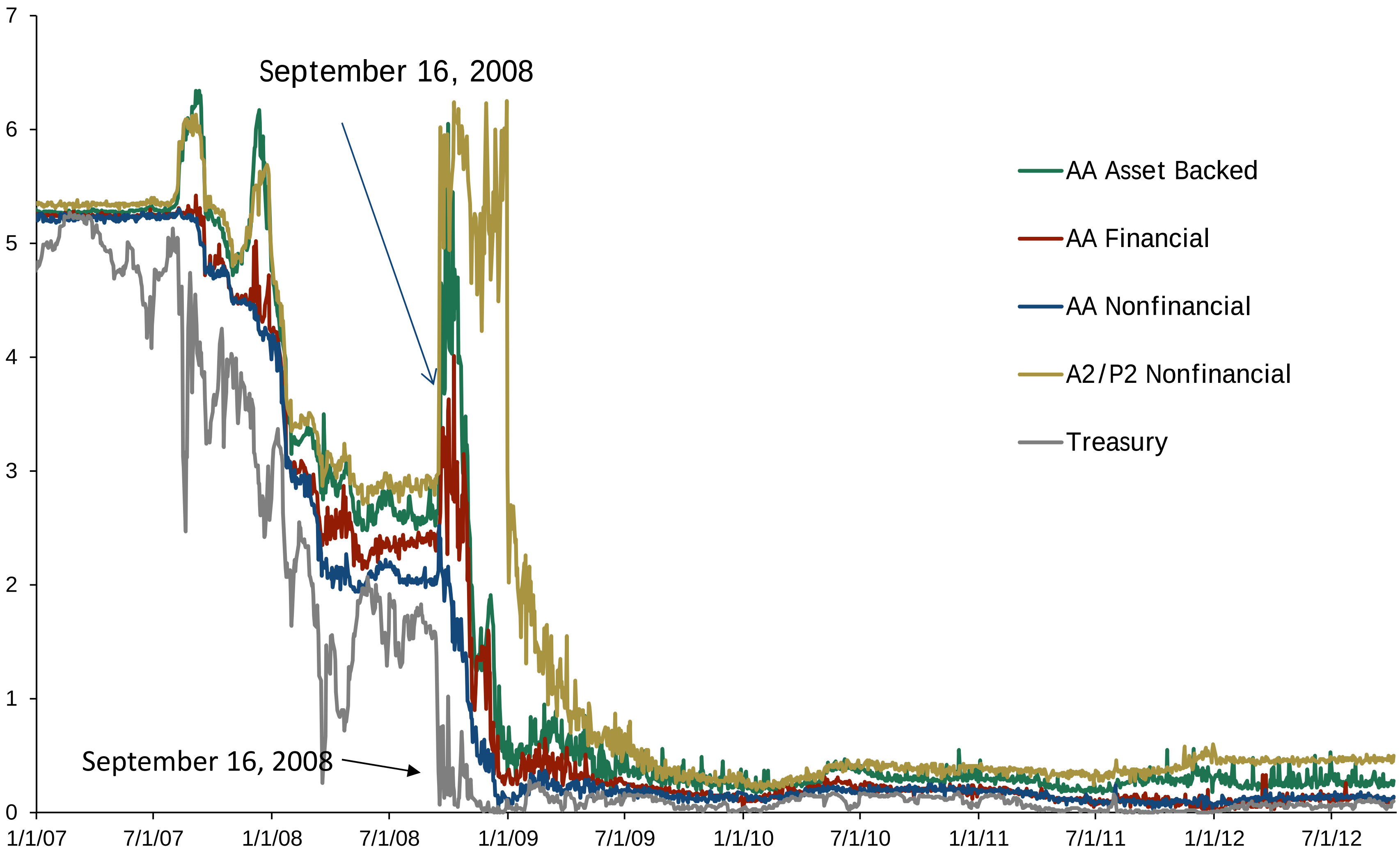
January 1, 2006 to April 30, 2012



Sources: Financial Times, Bloomberg, Haver Analytics

30-Day Commercial Paper and Treasury Rates

January 1, 2007 through October 9, 2012



Source: Federal Reserve Board, Haver Analytics

Immediate Policy Response

- September 19, 2008, Treasury announced that it would use funds from the Exchange Stabilization Fund to guarantee money market fund investments
- Federal Reserve responses
  - Money Market Investor Funding Facility (MMIFF)
  - Asset Backed Money Market Liquidity Facility (AMLF)
  - Commercial Paper Funding Facility (CPFF)

Reforms
Money Market Funds

- FSOC recommended a solution in November 2012
- SEC had failed to change the fundamental rules letting Money Market Mutual Funds (MMMFs) keep a net asset value (NAV) of $1
  - Amortized cost accounting for gains and losses
  - Penny rounding
- Proposed solutions
  - Floating NAV
  - Stable NAV with capital buffer
  - Possibly delayed redemptions based on an investor's assets in a prime MMMF

Current Status of Changes to Money Market Funds

- SEC's rule changes for prime funds
  - Floating NAV for large investors
  - Fixed NAV for small investors
    - Liquidity fee of 2 percent
    - Delay of 10 days on withdrawal
- Nothing so drastic for Treasury funds
- Two-year transition

Shadow Banking System

- The **shadow banking system** is a pejorative term for the collection of non-bank financial intermediaries which provide services similar to commercial banks. (Wikipedia 2013)

Shadow Banking System

- "Shadow banking, as usually defined, comprises a diverse set of institutions and markets that, collectively, carry out traditional banking functions--but do so outside, or in ways only loosely linked to, the traditional system of regulated depository institutions.
- Examples of important components of the shadow banking system include securitization vehicles, asset-backed commercial paper conduits, money market mutual funds, markets for repurchase agreements (repos), investment banks, and mortgage companies."
  - Ben Bernanke, April 2012

Regulate Systemic Risk

- What is systemic risk?
- How defined?
- How measured?

Systemic Risk

- *Systemic risk* refers to the risk or probability of breakdowns in an entire system, as opposed to breakdowns in individual parts or components, and is evidenced by comovements (correlation) among most or all the parts. (Kaufman and Scott 2003, p. 371)

How Measure Systemic Risk?

- Some popular measures are based on daily stock returns
  - CoVar
- Does not obviously get to the problem, which is extraordinarily infrequent movements due to highly unusual events
  - Same problem as with Value at Risk

How Regulate Systemic Risk?

- FSOC is one attempt
- FSOC is requiring large financial institutions to have “living wills”
  - Living will – A plan how to wind the firm down in the event of failure

Other Proposals

- More capital in banks
  - Risk-adjusted capital
  - Straight book value of equity and retained earnings
- Require banks to have debt that converts to capital under pre-specified conditions
  - Condition generally is too little market-value capital
    - A low share price
    - Can create odd incentives for the bank

Why Do We Have These Problems?

- Providing assistance to institutions in difficulties creates moral hazard
  - That assistance often is called "bailing them out"
  - Moral hazard is a term from insurance, not an economic term (at least originally)
    - If you have automobile insurance, you may drive less carefully
    - If you have comprehensive automobile insurance, you may take less care that your car not be stolen
    - Moral hazard is the response to the relative-price change due to insurance

Deposit Insurance

- Deposit insurance creates moral hazard
- The suppliers of deposits are less concerned with the risk-taking activities of a bank when deposits are insured
- The cost of deposits and other funds do not reflect the risk associated with a bank's activities
  - For example, deposit interest rates
  - Response of interest rates to risk may be muted even if not zero
- Banks respond by doing more of risky activities which now have a lower relative price
  - Bankers need not have any thought of running a riskier bank because of deposit insurance
  - Bankers are responding to relative prices, nothing more or less

“Bailouts” In General

- Any form of financial assistance has similar effects
  - Manufacturing firms such as General Motors
  - People who own beachfront homes
  - People left homeless by a typhoon in the Philippines
  - Assistance to anyone down on their luck
- How big is the effect and how undesirable is it?
  - Size is the economic question
  - Desirability depends partly on whether the funds are taxpayers’ funds or donations
    - At least for me and maybe some other people

More Radical Solutions

- Require much more capital in banks
  - Currently 6 to 8 percent
  - Raise capital to 20 or 25 percent of assets, the level before deposit insurance
- Require banks to be less than a certain size
- Have only a few large banks, eliminate smaller banks and permit no entry of new banks
  - Solution in Canada and Australia
  - Not a panacea – Ireland did not do so well

Summary

- The regulatory landscape has changed dramatically since the Financial Crisis of 2007-2008
- FSOC is the most visible entity
  - There are many more changes
- Regulation of systemic risk has come to the fore
- Concerns about shadow banking

Summary

- Major issues
  - Banks and their solvency in the face of difficulties
  - Nobank institutions

Summary

- Financial regulation is much different since Dodd-Frank
  - Financial stability
  - Stated goal of decreasing importance of “too big to fail”
    - More capital in banks
    - Regulation of systemically important financial institutions
    - Living wills
- Money market funds have been subject to more regulation