Antitrust and the Financial Crisis

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Overview

- Finance, and financial regulation
- Public policy toward housing finance
- The subprime debacle and the financial crisis
- The basics of “capital” and “leverage” for financial institutions
- “Too big to fail”
- Pro-competitive policy recommendations

Finance and Financial Regulation

Finance is special

- Finance is ubiquitous
- Finance involves an unavoidable time dimension
  - Initial lending; eventual repayment
  - Introduces problems of asymmetric information
    - Adverse selection: Who is creditworthy?
    - Moral hazard: How to monitor the borrower?
- Finance can be complicated and difficult to comprehend

2 important categories

- Financial intermediaries: hold financial assets, issue liabilities
  - Banks and other depositories, investment banks, insurance companies, pension funds, mutual funds, finance companies, GSEs
    - Leverage and capital are important
- Financial facilitators: facilitate transactions
  - Brokers, dealers, underwriters, analysts, advisors, accountants and auditors, lawyers, credit rating agencies

Categories of “banks”

- Commercial banks (and S&Ls, savings banks, thrifts, credit unions)
  - Make loans (assets), take in deposits (liabilities)
- Investment banks (“Wall Street”)
  - Formerly advisors, underwriters (financial facilitators)
  - Nowadays, hold financial assets, funded by borrowings
- Mortgage banks
  - Originate mortgage loans, quickly sell them into the secondary market (financial facilitators)

Traditional finance versus securitization

- Traditional
  - Vertically integrated
  - Fewer problems of moral hazard
- Securitization
  - Vertically dis-integrated
  - Allows more specialization
  - Allows better allocation of risks
  - Greater problems of moral hazard
  - Greater problems if borrowers default

Financial regulation

- Ubiquitous; because of
  - The ubiquity of finance
  - Asymmetric information
  - Complexity and difficulties of comprehension
- Covers a range
  - Prudential
  - Information
  - Consumer safety
  - Market power (?)

Justifications for regulation: market failure

- Market power (monopoly)
- Externalities/spillovers
- Asymmetric information
- “Widows and orphans”
- Income redistribution (?)

Government failure

- Asymmetric information
- Monopoly mistakes
- Rent seeking
- Capture

Types of financial regulation

- Economic regulation
  - Controls over entry, exit, prices, profits
- Safety regulation
  - Prudential regulation
    - Applies to depositories, insurance companies, pension funds, MMMFs, GSEs
  - Product safety
    - Information; price limits; product bans
- Information regulation
  - Standardized disclosure

Public Policy toward Housing Finance

“The shapers of the American mortgage finance system hoped to achieve the security of government ownership, the integrity of local banking and the ingenuity of Wall Street. Instead they got the ingenuity of government, the security of local banking and the integrity of Wall Street.”

David Frum, National Post, July 11, 2008

Housing policy

- Widespread subsidy of housing consumption
  - Income tax deductions and exemptions
  - Tax breaks and subsidies for rental
  - GSEs (Fannie Mae, Freddie Mac, FHLBs)
  - FHA, VA, Ginnie Mae
  - Direct provision (“public housing”)
- “Too much is never enough!”

Home ownership

- Encouraging home ownership is a major goal of housing policy
- There are genuine positive social benefits (positive externalities) from home ownership
  - Solid theory
  - Growing empirical evidence
- But home ownership is not for everyone
- Rental subsidies do not encourage home ownership

Housing policy consequences

- Much of the subsidy encourages larger, better appointed homes on larger lots, second homes, etc.
- The U.S. invests too much in housing and not enough in other productive assets
- The tax advantages mostly benefit higher income households
- Housing policy is not especially well focused on encouraging greater home ownership

The Subprime Debacle and the Financial Crisis

The Subprime debacle (1)

- A widespread belief that house prices would only increase
- If house prices can only increase, then mortgages can't go bad
  - Even a borrower who otherwise can't repay can sell the house at a profit and repay
- Why was this belief widespread?

The subprime debacle (2)

- A widespread under-appreciation of risk
- Junk bond" investors in 2005-2006 were content with only a 300-400bp spread over Treasuries
  - A few years earlier the spread was 500-600bp
- Lenders were putting fewer covenants and restrictions into private equity lending agreements
- Why was risk under-appreciated?

The subprime debacle (3)

- Moral hazard
  - agents: mortgage borrowers, brokers, originators, securitizers, credit rating agencies
  - Principals: bond holders, investment banks, depository institutions
- There won't be problems with the mortgages
  - Because house prices can only increase
- But even if there are problems, they will be somebody else's problems
- Why weren't the ultimate bond holders more concerned?
  - House prices can only increase
  - The widespread under-appreciation of risk

Consequences (1)

- The “dot.com” bubble losses
  - Between year-end 1999 and year-end 2002, the bursting of the “dot.com” bubble meant aggregate stock market losses in the U.S. of $7.5 trillion
  - Although no one likes $7.5 trillion in losses, the financial system was able to handle these losses without a great deal of disruption

Consequences (2)

- The housing bubble losses
  - If national home prices fall 35% from their mid 2006 peak, the aggregate losses will be about $7.7 trillion
    - Most of the losses will be absorbed by households
    - Perhaps $1½ trillion of the losses will be imposed on the financial sector
  - The $1½ trillion in losses have torn the U.S. financial system apart

Consequences (3)

- Why the difference
  - The losses of the burst “dot.com” bubble were mostly absorbed by household portfolios of stocks, mutual funds, and pension funds – all <u>unleveraged</u>
  - The financial sector’s losses from the burst housing bubble have all been in <u>leveraged</u> financial institutions (and arise because of leveraged mortgage borrowers)
  - Some of these financial institutions are large and widely interconnected: systemic risk

The Basics of “Capital” and “Leverage” for Financial Institutions

Capital for a financial institution

- What capital isn't
  - "Cash"
  - "Money"
  - Capital should not be confused with liquidity
- What capital is (approximately)
  - Net worth or owners' equity
  - The arithmetic difference between the value of assets and the value of fixed liabilities

The importance of capital

- Adequate capital is crucial in a legal system of limited liability for corporate owners
- Capital is the “cushion” or buffer that protects fixed liability holders (lenders) against losses in the value of assets of the entity to which they have lent
- Capital is a deterrent to risk-taking; the owners have more to lose
- Lenders should always worry about the adequacy of a borrower’s capital
- Capital should be measured on the basis of market-value accounting

Leverage

- Leverage is the ratio of assets to capital
- Leverage is the inverse of the capital/assets ratio
- High leverage means that a small % increase in the value of assets yields a large % increase in the owners' equity
- High leverage means that <u>a small % decrease in the value of assets yields a large % decrease (or elimination of) the owners' equity</u>

Typical industrial company

Assets	Liabilities
$100 (plant, equipment, inventory, etc.)	$60 (bank loans, bonds)
	40 (net worth; owners' equity)

equity/assets: 40%

Leverage: 2½/ 1

Typical industrial company: a gain

Assets	Liabilities
$110 ~~$100~~ (plant, equipment, inventory, etc.) +10%	$60 (bank loans, bonds)
	~~$40~~ $50 (net worth; owners' equity) +25%

equity/assets: 40% (now 45%)

Leverage: 2½/1 (now 2.2/1)

Typical industrial company: a loss

	Assets	Liabilities
$90	~~$100~~ (plant, equipment, inventory, etc.)	$60 (bank loans, bonds)
-10%		~~$40~~ $30 (net worth; owners' equity) -25%

equity/assets: 40% (now 33%)

Leverage: 2½/1 (now 3/1)

Healthy, solvent bank

Assets	Liabilities
$100 (loans)	$92 (deposits)
	8 (net worth; owners' equity; "capital")

Capital/assets: 8%

Leverage: 12½/1

Healthy, solvent bank: a gain

Assets	Liabilities
$110 ~~$100~~ (loans)	$92 (deposits)
+10%	~~$8~~ $18 (net worth;
	+125% owners' equity;
	"capital")

Capital/assets: 8% (now 16%)

Leverage: 12½/1 (now 6.1/1)

Insolvent bank (a loss)

Assets	Liabilities
$90 $~~100~~ (loans)	$92 (deposits)
-10%	$~~8~~ $-2 (net worth;
	-125% owners' equity;
	"capital")

Capital/assets: 8% (now -0.4%)

Leverage: 12½/1 (now ???)

Fannie Mae or Freddie Mac

Assets	Liabilities
100 (loans)	96 (bonds)
	4 (net worth; owners' equity; "capital")

(plus 200 in issued MBS)

Capital/assets: 4%

Leverage: 25/1

Lehman Bros. or Bear Sterns

Assets	Liabilities
100 (loans)	97 (bonds, c.p.)
	3 (net worth; owners' equity; "capital")

Capital/assets: 3%

Leverage: 33/1

Insolvent financial institution

Assets	Liabilities
80	92
	-12

Consequences of insolvency

- Assets are inadequate to cover liabilities
- Owners' equity is negative
- Owners aren't liable for the shortfall
  - Limited liability for corporate owners
- Fixed liability holders must absorb the shortfall in some fashion, unless those liabilities have been guaranteed
  - E.g., deposit insurance
  - E.g., government backing of Fannie & Freddie debt

Fears of insolvency

- Creditors' fears of insolvencies can lead to
  - Runs
  - Refusals to lend

“Too Big to Fail” (TBTF)

FDIC resolution of a small insolvent bank

- Declare a receivership
  - Owners are washed away
  - Senior management is replaced
- Honor insurance guarantees to depositors
- Fill the negative net worth hole
- Find an acquirer
  - Liquidation is a last resort

Complications to resolving a large insolvent bank

- A larger fraction of uninsured deposits
- A larger fraction of non-deposit liabilities
- More off-balance sheet exposures
- Bigger (uninsured) holding company
- Investment banks, finance companies, etc., aren't insured
- Bankruptcy is more messy, less certain

The essence of TBTF

- A large bank can “fail”
  - Owners washed away
  - Senior management replaced
  - Too big to liquidate
- But if there are large amounts of uninsured liabilities, with many counterparties, then…
  - Potentials for runs, cascades
  - Refusals to lend

TBTF is <u>not</u> an antitrust issue

- TBTF involves size, but it does not involve the exercise of market power
  - It involves a subsidy
  - It involves a negative externality
- Antitrust doesn't try to address other subsidies, externalities
- The Horizontal Merger Guidelines (HMG) would not help in analyzing a merger that could create a TBTF institution

What Is to Be Done?

Antitrust and financial regulatory reform

- Since the financial crisis had little connection to antitrust (and vice-versa), antitrust has little connection to financial regulatory reform that is related to the crisis
- But there are reforms to financial regulation more generally that the antitrust community should encourage

Eliminate exemptions from the antitrust laws

- Insurance industry
- Shared merger authority in banking

Maintain the HMG perspective

- Mergers among financial services firms will surely continue
- Most mergers will not pose an antitrust issue
- Some banking mergers may pose problems in some MSAs
  - Deposits and loans to SMEs tend to be local markets
  - Average HHIs haven’t risen in these markets
- Don’t be distracted by TBTF

Modify financial regulation to encourage more competition

- Let Wal-Mart and other non-financial companies enter banking as BHCs
  - This would be a superior alternative to the "lean on" regulatory pressures that arise under the Community Reinvestment Act of 1977
- End collective rate filing in insurance
- End the prudential regulation's "blind" reliance on a small number of credit rating agencies

What about the credit rating agencies?

Fixing the rating agencies (1)

- Route 1: More regulation; “fix the agencies”?
  - Reduce the conflicts, increase transparency
    - Dodd-Frank Act; SEC actions
  - Change the business model?
- What are the pitfalls of this route?
  - What are the consequences for flexibility, innovation, and entry in the bond information market?
  - Will “more and better” regulation really work?

Fixing the rating agencies (2)

- Regulators should cease outsourcing safety judgments
  - **Ratings would no longer have the force of law!**
  - The goal of safe bond portfolios should remain
  - Dodd-Frank Act; SEC actions
- Financial institutions would bear the burden of justifying their bond investment decisions
- The bond information market would truly be opened to new ideas
- The incumbent rating agencies -- and all other bond market information providers -- would have to meet a market test

Conclusion

- Finance and financial regulation are complicated
- Antitrust had little to do with the financial crisis, and vice-versa
  - Antitrust had little to offer for financial regulatory reform that was related to the financial crisis
- An antitrust perspective can inform worthwhile reforms in financial regulation