

# The Global Roots of the Current Financial Crisis and its Implications for Regulation

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# The Elements of the Crisis

- Excessive credit
- Excessive leverage
- Excessive “funding” illiquidity=>insolvency>panic

# The roots of excessive credit

- Emerging market crises in late 1990s
  - The global mismatch between desired savings and realized investment
  - Emerging markets and developing countries focus on exports, and generate substantial domestic savings

=> Demand for high rated paper

=> Demand for short maturities
- Industrial countries, especially US, expand domestic demand
  - But after collapse of IT bubble, corporate savings and subdued investment
  - Household savings falls, residential investment increases

=> Rise in asset prices, especially housing, and therefore construction.

  - Not just US – Ireland, Spain, UK...

# Why problems first in US?

- Innovations went further to supply the highly rated paper foreigners wanted.
  - Kind of mortgages as well as process of refinancing
    - So long as the house price was rising...
  - Structured products : turning lead into gold
    - \$100 of sub prime mortgages into \$70 to \$80 of short maturity AAA securities

# Feedback loop

- Securitization reduced the quality of credit originated
  - Originators focused primarily on ensuring mortgages met norms for securitization.
  - Only hard information mattered, not soft.
  - Underlying credit quality was deteriorating.

# Proximate cause 1:

- Banks retained substantial exposure to subprime-linked securities either on, or off, balance sheet.
- Why did banks load up on mortgage-backed assets? Governance/agency problems.
  - At the top: “Dancing while the music is playing”.
  - In between: Compensation structures/risk management.
  - Broad underlying issue : Difficulty separating true alpha from hard-to-measure tail risk.

# Proximate cause 2

- They financed these assets with short-term debt on or off balance sheet.
- Why did they finance with short term leverage?
  - Given agency problems, short term (secured) debt is cheapest way to finance: collateral helps reassure financiers.
  - Much higher cost to financing with more equity capital, or even long-term subordinated debt.

# Events unfold.

⇒ As house prices stopped rising underlying model of refinancing broke down.

⇒ As defaults grew:

- Subprime assets collapsed in value and became hard to trade.
  - Asymmetric information
  - Complexity
- Financing dried up.

⇒ Spillovers:

- To other banks via fire sales.
- To the real economy via credit contraction.
- To the rest of the world via a sudden stop.

# Public vs. private value of recapitalization

- More bank capital-raising would be helpful.
- But banks are moving slowly:
  - Debt overhang.
  - Asymmetric information – signaling problem
  - Due to spillovers, private incentive to recapitalize less than social value: failure to internalize.
- Public purse is now being used selectively.
  - Fortifying strong banks
  - Closing down weak banks and adding capital to moderate banks?

# Lessons learned (or to be learned)

- Excessive credit growth can emerge from anywhere in the system and impinge on the entire system. Illiquidity is contagious.
- Too much of our regulation assumes management has control and cares about the long run.
- Superiority of banking model? Or link to government?
- Regulators often are focused on the wrong places in monitoring risks
  - Hedge funds
- Ever stricter regulation of the regulated part will push activity into the unregulated part.
  - SIVs and Conduits
- Having a variety of markets and institutions can help the system regain equilibrium more quickly
  - Hedge funds, private equity, Buffet, and sovereign wealth funds
- Too many entities are too big to fail – their bailout has political spillovers (GM gets bailout) and long term detrimental effects

# What does all this imply for capital regulation?

## Traditional view

- Buffer against failure: protect the FDIC.
- Give equity bigger stake, stronger incentives to monitor.
- Budget for risk plus system of charges.

## Limits of traditional view:

- Does not address fire sale/credit crunch externalities, which can be exacerbated by attempts to restore capital ratios.
- Does not address mismatch between “market” capital requirement and regulatory capital requirement.
  - Upswings – market capital requirement low, debt financing “cheap”
    - Incentive for regulatory arbitrage high
  - Downturn – market capital requirement higher than regulatory requirement.

# Given our diagnosis, are across-the-board higher capital requirements best medicine?

## In upswings

- Increases funding costs for banks.
  - Will reduce intermediation.
  - More idle capital on balance sheet → search for risk/ higher agency costs in good times.
  - Increases incentive for regulatory arbitrage

## In downturns

- Does little to deal with fire-sale and credit-contraction externalities.

Do counter-cyclical capital requirements solve the problem?

- Market vs regulatory capital

# Broad principles for reform

- Don't just fight the last war.
  - Next crisis will not be in AAA-rated subprime tranches.
  - Heavy handed regulation will increase search for arbitrage.
- Improving banker incentives important, but many sources of breakdown.
  - Do what you can, but recognize it will not be enough.
- More emphasis on anticipating clean-up and making the private sector pay.
  - Focus on sprinklers, not just fire code.
  - Important to rein in the extent of the safety net that has now been extended to financial institutions, especially large ones.

# A Proposal: Capital Insurance

- Raise capital requirements, but give banks option to satisfy some portion with contingent capital that flows in only in crisis, based on pre-specified triggers.
  - Basically, an insurance policy.
  - Economic logic: banks do not sit on costly idle capital all the time: get infusion only in states when social value of bank capital is at its highest.
  - This lowers agency costs, makes contingent scheme cheaper than uncontingent capital held on balance sheet.
  - Specifically targeted at preventing systemic spillovers.
    - Does not pre-judge source of crisis
  - Retains firm-specific incentives.
  - Buffers authorities from too-big-to-fail.
- Compare not to ideal, but to realistic alternatives, e.g., higher capital requirements with no flexibility.

# Sketch of the details

- At inception, funds raised invested in Treasuries and placed in a lock-box: eliminate risk of non-performance.
- Trigger for payoff– some measure of recent aggregate bank losses except for own losses.
- As bank losses mount, Treasuries are transferred from lock box to the insured bank until limit reached.
- Investors (sovereign wealth funds, global pension funds, diversified bond funds) get insurance premium as compensation. To them, it's a cat bond.
- With opt-in feature, banks can always raise straight capital instead if that is cheaper.

# Issues

- **Does capital insurance increase moral hazard?**
  - Payout not based on bank-specific losses.
  - More subtly, may increase tolerance to those risks that hit in crisis states.
  - Though banks seem to underweight these very low-probability states to begin with—hence the current mess.
- **Will there be a market?**
  - Could appeal to diversified passive investors looking for “yield enhancement”.
  - Regulators can give a boost via tax, accounting treatment, etc.
  - Opt-in feature as a safeguard: does no harm.

# Why not government provided?

- Government does not have to keep idle collateral (though cost is not high if passive investors provide insurance)
- Can raise money through taxes whenever necessary.

But

- Will government price appropriately?
  - Political power of large banks

# Comments

- Proposal is not a cure-all
  - Various important problems that it fails to address.
  - Lots of details to be worked out.
- Should be thought of as only one tool in addition to others:
  - Is complementary to proposals such as reforming pay structures or earnings calculations.