

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

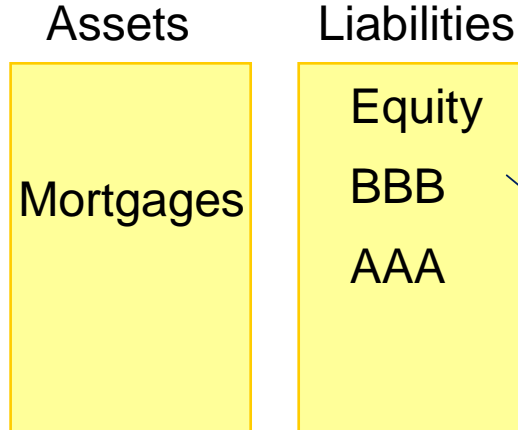
What are the roots? What are the links?

The roots of excessive credit

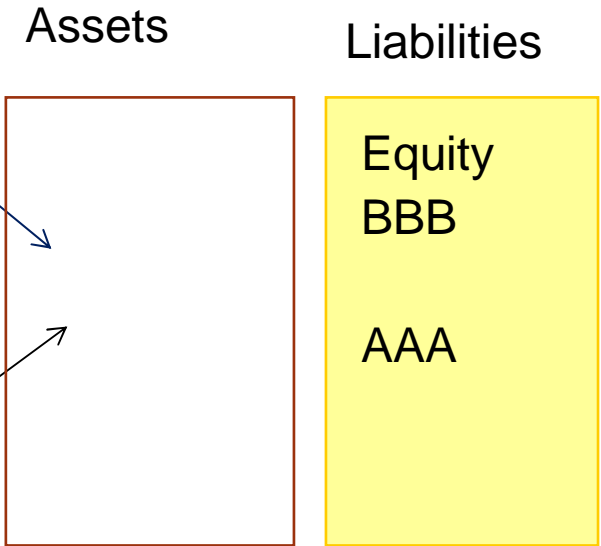
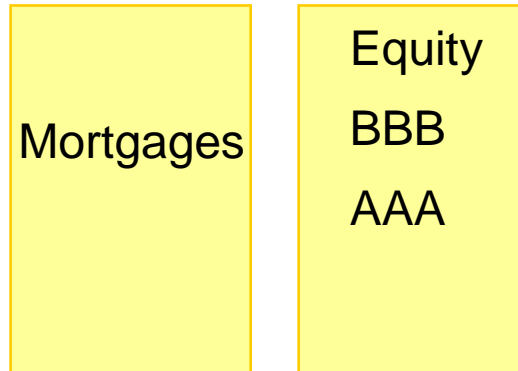
- Emerging market crises in late 1990s
 - The global mismatch between desired savings and realized investment
 - Emerging markets and developing countries focus on exports, and generate substantial domestic savings
 - ⇒ Demand for high rated paper
 - ⇒ Demand for short maturities
- Accommodative monetary policy in developed countries after collapse of IT bubble
 - Expansion in domestic demand
 - Corporate savings and subdued investment
 - ⇒ Rise in asset prices, especially housing, and therefore construction.
 - Not just US – Ireland, Spain, UK...

Why problems first in US?

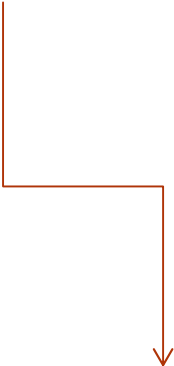
- Innovations went further to supply the highly rated paper foreigners wanted.
 - Kind of mortgages as well as process of refinancing
 - So long as the house price was rising...
 - Structured products : turning lead into gold
 - \$100 of sub prime mortgages into \$70 to \$80 of short maturity AAA securities



Mortgage backed securities



Collateralized debt obligation (CDO)



CDO square

Outcome

- Securitization reduced the quality of credit originated
- Only hard information mattered, not soft.

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What caused the crisis?

- Banks retained substantial exposure to subprime-linked securities.
- They financed these assets with short-term debt on or off balance sheet.

⇒ As housing-sector problems grew:

- Subprime assets collapsed in value and became hard to trade.
- 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.

What is the underlying framework for what happened?

- 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.
- 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.

Public vs. private value of recapitalization

- More bank capital-raising would be helpful.
- But banks are moving slowly:
 - Debt overhang.
 - Asymmetric information.
- Due to spillovers, private incentive to recapitalize less than social value: failure to internalize.
- Public purse is now being used.

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.
 - Unregulated brokers
- Monetary policy choices can affect financial stability.
- 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
- Too much of our regulation assumes management has control and cares about the long run.
- Having a variety of markets and institutions can help the system regain equilibrium more quickly
 - Hedge funds, private equity, Buffet, and sovereign wealth funds
- It is important to strengthen the infrastructure to deal with disaster because periodic disaster is inevitable.

Let us examine one aspect in greater detail: Calls to raise capital requirements

- On mortgage-backed assets.
- Across the board.
- Over the cycle.

Is this the right approach?

The traditional view of capital regulation

- 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 the reaction by banks to higher capital, both on and off- balance sheet.
- Does not seek to understand *why* capital is costly.
 - With better handle on root causes, might try to mitigate.

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

- 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
- Does little to deal with fire-sale and credit-contraction externalities.
 - If capital requirement is same in bad times, banks must recapitalize or shed assets.
- Does 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 incentives at the top 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.

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.
- 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.

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 or earnings calculations.

Final thoughts

- Monetary policy will be more open to leaning against the wind when asset prices ramp up too fast.
- More regulation in the financial sector including of pay.
 - Writing insurance and paying out the premiums as bonuses and dividends instead of setting up reserves
 - Pay over the long run, with claw back options
 - Level of pay?
- Superiority of banking model? Or link to government?
- Consolidation and limitation on competition.
 - How will we deal with too big to fail/too connected to fail?

Final thoughts, contd.

- Less innovation and more implicit or explicit capital requirements across the board (including for entities that are currently more lightly regulated) => profitability and return to capital of active levered financial institutions is likely to decline even after accounting for losses.
- Concerns about financial liberalization will slow pace of financial sector reform in emerging markets.
- Are we doomed to lurch into the next crisis? Where will it be?