Lessons of the Global Financial Crisis for Risk Management

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Introduction

• Regulatory arbitrage and “risk management” arbitrage are facts of life

• Innovations may try to take advantage of models or rules of thumb
Overview

• Overview of Fragilities of the System
• Seven Deadly Sins of Risk Management
  – “Checklist”
• Repent Ye Sinners – Reforms for both risk managers and for the regulators
Interlinkages, Liquidity and Leverage

• With a marketwide liquidity shock, both asset and liability side of balance sheet face stress
  – Unplanned asset expansions hence unplanned increase in leverage
    • Inability to securitize/sell so stay on balance sheet
    • Taking on “off balance sheet” assets on balance sheet
  – Funding “runs”
    • Deposit insurance largely prevented depositor runs
    • But inability to obtain even secured financing
Funding and Counterparty Fragility

• Fragmented structured leading to high reliance on short-term external funding
  – Legacy of Glass-Steagall; rise of MMMFs
  – Unprecedented freezing of even secured funding markets

• Interconnectedness through counterparty and funding chains
  – Legal uncertainty about bankruptcy resolution and contract enforcement
  – In illiquid market, broken hedges can’t be repaired so exposure explodes
Thou Shall Not...

• 1) Let accounting/compensation rules obscure the economics and the risks
  – Important to educate boards and senior management
  – Important to ensure that incentive/rewards systems do not rely on “false profits of accounting”
  – E.g., despite what the accounting rules may say for provisioning, asset prices can go down as well as up
    • Pro vs Counter – cyclical policies
Thou Shall Not...

• 2) Deny that correlation rises in a crisis
  – Geographic diversification can disappear in a crisis (for housing as well as other assets and activities)
    • Around US
    • Across countries
    • Across assets
Thou Shall...

3) Search for hidden exposures to common risks
   - Don’t focus only on activities (underwriting/originating in mortgages, investing in them, and funders or counterparties investing in them) or asset classes (many had a common factor in housing)
   - Multiple exposures across activities
   - Common risk factors is the key
   - Enterprise wide risk management
Thou Shall Not...

• 4) Focus on only your own Liquidity Risk Management, but also the risks that your funders face
  – MMMFs
  – Be thy brother’s keeper (or at least keep an eye on him)
  – Interconnectedness
Thou Shall Not...

5) Seek false protection from “Toxic contracts” that can seem to provide insurance against on-off risks but induce correlation/interconnectedness in crisis

– When does the counterparty have to post collateral, either when they don’t have it or the collateral is lower value

– “Limits to Arbitrage”

– Death spiral
Thou Shall Not...

• 6) Succumb to the curse of market liquidity
  – False sense of security, no need to do due diligence if you can always dump into a liquid market
  – Investment in info, contracts, and alternatives
    • Fragility of market infrastructure
  – Liquid markets can dry up suddenly
    • “Sudden stop” literature
Thou Shall Not...

- 7) Permit financial innovation to build in tail risks that are difficult to model or that effectively manipulate the models
  - Financial innovation will try to take advantage of the risk models you are using
  - You set VAR and they will find an instrument +.01
  - Also will try to structure instruments in a way that will be hard to assess the tail risk
  - Always the case that new instruments have less info, less experience, less certainty of how the market will work
Repent Ye Sinners: How to Reform

- Independent and respected risk function
- Direct communication with the most senior management and this must be known within and outside the firm
- Assess risks across the entire set of activities and investments of the firm
- Assess risks of counterparties and market infrastructure so that hedges don’t disappear just when you need them
- Combine highest tech with well-grounded common sense experience
Repent Ye Sinners: How to Reform

- Move OTC credit derivatives on to centrally cleared platforms
- Reduce uncertainty of bankruptcy/resolution/contract enforcement to reduce likelihood of funding runs
- Improve monitoring of liquidity risks
- Use capital requirements so that they do not encourage “toxic contracts”
LIBOR-OIS Spread