The doom of structured credit: lessons for future regulation

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Hard questions that should be asked

• Why are market-financed economies systematically prone to recurrent financial crises?

• Why has the investment bank model of credit (O&D) so miserably failed?

• Why has the valuation of risk been so misleading for the investing community?

• What are the lessons to be drawn for future regulatory reform?
Embedded instability in market finance dynamic

- Credit markets are not standard supply and demand markets:
  - For price to drive an adjustment to equilibrium between supply and demand the demand curve must be independent of the supply curve
  - This is not so with credit while debt is issued against promises of future asset price appreciation and not against future income of individual borrowers: credit supply creates its own demand in a roundabout way non-stabilizing positive feedback process
  - Individual credit demand functions are not independent: they contribute to the rise in asset prices, therefore to the general increase in wealth

Credit supply rises

Expected return on assets/cost of capital rises

Credit demand rises for all borrowers

Perceived creditworthiness of borrowers improves

Wealth of all borrowers rises with asset prices
Embedded instability in market finance dynamic

- Monetary policy is not well-equipped to monitor the financial cycle because the credit-induced asset price bubble formation is largely decoupled from the concern with price stability.

**Euphoric stage of credit expansion and asset price rise**

- No inflationary threat: easy monetary policy
- Expansion in FIs borrowing against collateral (Repos)
- Financial leverage ↑
- Speed-up in the supply of credit
- Appreciation of collateral value
- Asset prices rise to bubble highs

**Depressive stage of credit contraction and asset price slump**

- Retarded rise of inflation
- Restrictive monetary policy
- Contraction in FIs borrowing against collateral (Repos)
- Financial leverage ↓
- Slowdown in the supply of credit
- Depreciation of collateral value
- Asset prices plummet well under economic values
Securitization is not the problem, the behavior of all financial intermediaries and rating agencies is

Benefits of properly managed securitization

- **Benefits:**
  - Financing costs
  - Risk spread more evenly
  - Larger portfolio choices
- **Proper management:**
  - Credit to be packaged secured and standardized
  - Liquidity secured by secondary market or by regulating agencies
  - No deterioration of credit quality at origination
  - Ultimate holders of risk able to make independent assessment and exert market discipline on intermediaries

Damages inflicted by the unsecured O&D model

- **Loss of info, conflicts of interests**
  - Securitization for regulatory arbitrage
  - Incentive structure favors volume against quality of credit at origination
  - Risk packaged in unconsolidated and unregulated off-balance sheet structures

- **Massive flaws in risk valuation by rating agencies:**
  - Ratings are highly misleading as assessment of risk
  - Investors were deprived of infos for an independent evaluation
The pitfalls in valuing risk of complex structured instruments

• *Rating agencies fooled by randomness*: a record of no more than 10 years for ABS led them to assume that no general decline in housing prices could arise: inference of correlations amongst credits in pools to be structured <30%. Super senior tranches should be protected in all circumstances warranting AAA (*Hyp of a black swan ruled out*)

• Simulation of likely losses for the different tranches built upon a pool of mortgages for different levels of correlation with a 1% individual default loss

Losses in the tranches by level of subordination for different correlations in the pool of assets
The demise of securitization in all its stages

• Origination: O&D model → no control of risk to be sold
• Arrangers conceived totally unregulated and unconsolidated shadow banks to store the ABS and CDO to be transferred to investors, minimizing capital requirements and maximizing financial leverage
• Downstream investors had no info and no ability to make an independent assessment of risk → market discipline was a mockery
• The massive downgrading of subprime RMBS attacked the super senior tranches and destroyed trust of investors → market financing of the shadow banking system seized all at once
Connection between credit and liquidity risk in the shadow banking system

- Conduits and SIV (hedge fund-like structures) were highly leveraged: *illiquid long-maturity assets financed by short-term liabilities*

| Financial Structure of a typical SIV ($2b in assets) granted the highest rating |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Asset Portfolio                 | Rating  | Size(%) | Structure                        | Size ($ mil) | Size (%) |
| RMBS                            | AAA     | 47.3    | Primary dealer credit + ABCP     | 1820         | 91.0     |
| CMBS                            | AAA     | 15.4    | Senior Securities                | 120          | 6.0      |
| CDO                             | AAA     | 25.0    | Mezzanine Sec                    | 57           | 2.85     |
| Other ABS                       | AAA     | 12.3    | Capital                          | 3            | 3        |

- While rating agencies had downgraded securitized assets across the board, ABCP could no longer be rolled over. Off-balance sheet structures became entirely dependent on primary dealer financing. Because of huge counterparty risk, investment banks decided to reconsolidate what they had unwisely deconsolidated → *very large and recurrent liquidity requirements in the global money market*
Regulatory reforms: counter-cyclical tools

- Central banks should play a broader role in prudential regulation:
  - Investment banks have been brought under the umbrella of the LLR → *too big-to-fail replaced by too interconnected-to-fail*
  - Hands-off policy in leverage-induced asset price dynamics (Greenspan) has become untenable (Mishkin) → Dual mandate (financial stability / price stability) needs other tools than the interest rate: *reforming regulatory instruments to mitigate leverage in the euphoric stage of financial cycle*

- Reforms impinge upon capital requirements and liquidity management:
  - In squeezed spread cum asset bubble stage of the financial cycle, market value is everything but fair value → *modulating capital adequacy according to an averaging formula over the cycle*
  - *Bank supervisors should look more closely to maturity mismatches*, including shadow banks tightly connected to primary dealers (disclosure should be imperative)
  - *Central banks should provide flexible liquidity schemes* to avoid stigma pbs in crisis and induce banks to hold adequate liquidity in normal times
Regulatory reforms: market discipline

• **Strengthening the securitization process:**
  – Close all incentives for regulatory arbitrage: *securitize for sound economic reasons*
  – Prohibit securitized instruments whose risk assessment by arrangers and risk traders escapes cross-valuation by ultimate risk holders
  – Undertake an in-depth review of the methodology of rating agencies applied to structured credit: meaning of the uniform rate scale for pools of assets whose time structure is fixed against credit events, lack of sensitivity to tail risks, exacerbated conflicts of interests

• **Two ways of market discipline**
  – *Standardize pools of credit so that tranches of securities are traded on organized Exchanges*: trades against the clearing house, multilateral netting, daily mark-to-market of exposures, margin requirements
  – *Enhance transparency among all intermediaries in the securitization process* (hedge funds included) so that *investors are capable of risk evaluation of their own*: compulsory disclosure in composition of asset pools, assumptions on systematic risk factors, impact of shocks on asset return correlation.