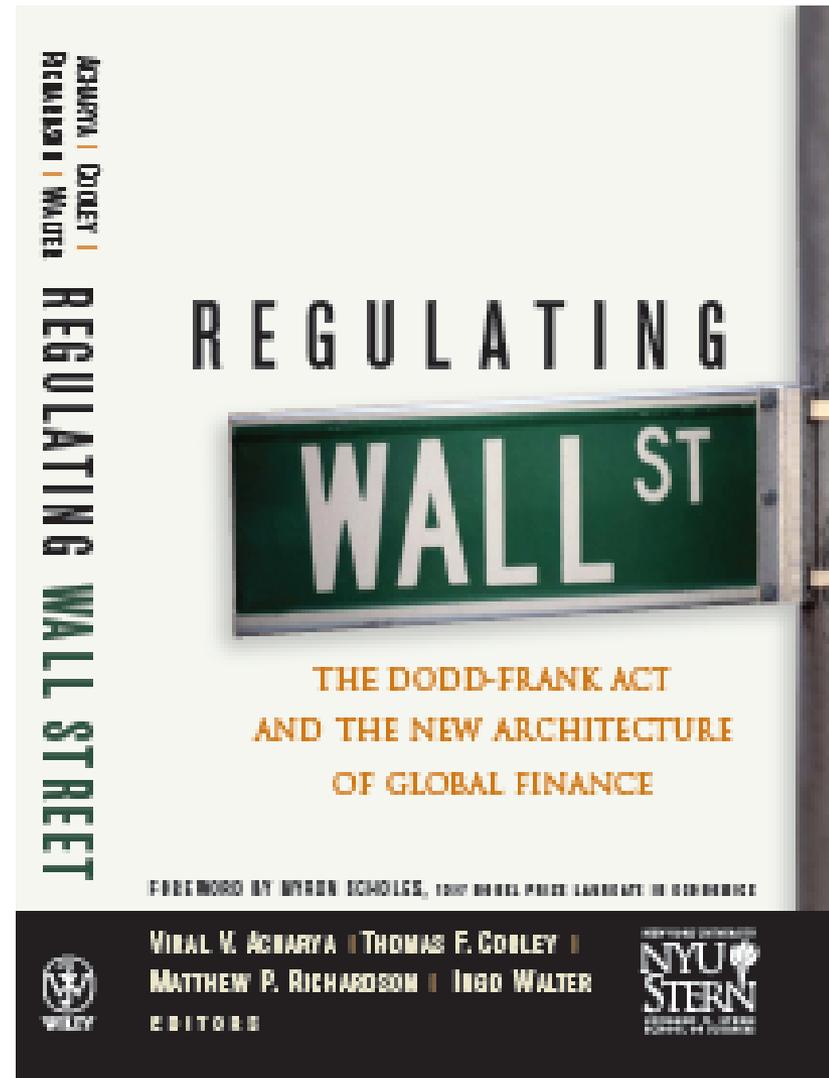




Contingent Liquidity Risks

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Contingent liquidity risks

- Financial firms have fragile capital structures
- They make contingent promises; receive contingent cash flows
- When promises seem hard to meet, financiers and counterparties “react”
- Runs: retail deposits, wholesale deposits
- Collateralization: repo markets, derivatives

Need better data on short-term debt

- Stress tests can be useful in understanding what contingencies will materialize when
- But before we can do this, we need good data on what the promises are in the first place
- To start with, can we get standardized data on all straight short-term debt outstanding of financial firms?
- Why are researchers (and in some cases, also regulators) unable to see day to day liability maps, e.g., CP and repo outstanding?

Collect information at source

- Best way to proceed is to get information when transactions occur and new debt is issued
- Call reports useful, but need more granularity and frequency
- DTCC (CP data exists, e.g.)
- Tri-party repo system, if made into a utility (Repos)
- Centralized clearinghouses (Derivatives)
- Legislation requiring reporting at source is needed (not that different from withholding of taxes at source!)
- Some have proposed all transactions with safe harbor in bankruptcy be reported (and taxed)

Derivatives-linked liquidity risks

- Potential leverage offered can be infinite
- Counterparties attempt to contain leverage through bilateral collateral arrangements
 - Are such arrangements adequate from a systemic standpoint?
- Do they (in fact, can they!) reflect the overall risk of the levered entity?
- If not, derivatives-linked exposures can be significant amplifiers
- [“A Transparency Standard for Derivatives”](#), by Viral V Acharya



An Example:

Margin Call Report -

How much cash do firms have relative to margin risk?

Collateral

Credit-Risk-Related Contingent Features in Derivatives

| | JP Morgan | AA to BBB: 6 notch | AA to AA-: 1 notch | Goldman Sachs | |
|----------|---------------------------------|---|---------------------------|-------------------------------------|----------------|
| | <u>Collateral Posted (\$bn)</u> | <u>Additional Collateral in Case of downgrade</u> | | <u>One Notch Downgrade, in \$mm</u> | <u>2 Notch</u> |
| 2006-Q4 | 26.6 | | | | |
| 2007- Q1 | 27.0 | 2.6 | 0.1 | 607.0 | |
| 2007- Q2 | 28.3 | 2.9 | 0.2 | 598.0 | |
| 2007- Q3 | 32.8 | 3.2 | 0.3 | 752.0 | NA |
| 2007- Q4 | 33.5 | 2.5 | 0.2 | 595.0 | |
| 2008- Q1 | 48.5 | 3.4 | 0.3 | 957.0 | |
| 2008- Q2 | 58.2 | 3.5 | 0.6 | 785.0 | |
| 2008- Q3 | 60.1 | 4.3 | 0.9 | 669.0 | |
| 2008- Q4 | 99.1 | 6.4 | 2.2 | 897.0 | 2140.0 |
| 2009- Q1 | 82.3 | 4.9 | 1.4 | 941.0 | 2140.0 |
| 2009- Q2 | 67.7 | 4.0 | 1.2 | 763.0 | 1930.0 |
| 2009- Q3 | 66.0 | 4.4 | 1.5 | 685.0 | 1700.0 |
| 2009- Q4 | | | | | |

AI G's collateral risk disclosure over time

| | 2007-1 | 2007-2 | 2007-3 | 2007-4 |
|---|---------|---------|----------|-------------|
| Marginal Call Reports | | | | |
| Additional Collateral for One-notch Downgrade Rating ⁽⁴⁾ | \$902 | \$847 | \$830 | \$1,390 |
| Additional Collateral for Two-notch Downgrade Rating | | | | |
| Additional Collateral for Three-notch Downgrade Rating | | | | |
| Additional Collateral for Multi-notch Downgrade Rating | | | | |
| | 2008-1 | 2008-2 | 2008-3 | Actual |
| Marginal Call Reports | | | | |
| Additional Collateral for One-notch Downgrade Rating ⁽⁴⁾ | \$1,800 | \$1,200 | \$1,800 | |
| Additional Collateral for Two-notch Downgrade Rating | | | \$9,800 | Moody's/Fit |
| Additional Collateral for Three-notch Downgrade Rating | | | \$20,000 | S&P |
| Additional Collateral for Multi-notch Downgrade Rating | | | \$32,000 | Market risk |

Cash holdings relative to margin call risk

- Goldman Sachs (4Q 2008):
Two-notch downgrade = \$2bln+
Cash = \$100bln+ (as of 3Q 2008, “Total Global Core Excess”)
Margin-risk coverage ratio = 50
- JPMorgan Chase (4Q 2008):
One-notch downgrade = \$2bln; Six-notch = \$6bln
Cash = \$26bln (as of 3Q 2008)
Margin-risk coverage ratio = 4+
- A.I.G. (Q3 2008):
Two-notch downgrade = \$9.8bln; Three-notch = \$20bln (est), \$32bln (realized)
Cash = \$2.5bln in March 2008
(\$18.6bln post-intervention Sep 08, due to \$61bln Fed borrowings)
Margin-risk coverage ratio < 1 for two-notch downgrade

Systemic risk: solvency-liquidity nexus

- **AIG's example illustrates that**

If a firm (dealer) becomes under-capitalized when other firms (dealers) are also under-capitalized,

Then counterparties' liquidation rights are less valuable (fire-sales);

Hence, counterparties will demand greater collateral ex post (pro-cyclical, externality, bail outs);

So prudential regulation should require

Greater upfront collateral from those firms (dealers) whose own under capitalization is greater when other firms (dealers) are under-capitalized, and who provide protection on aggregate risky claims (CDS on MBS, CLOs, etc.)

How to measure risk of joint under-capitalization?

E.g., [NYU-Stern Global Systemic Risk Rankings](#)



Concentration Reports?

Crucial but not yet provided



What Will Financial Firms NOT Be Asked to Disclose? (Example: Dodd-Frank Act)

What the Act DOES NOT require?

- No mention of reporting of short-term debt of financial firms
- No mention of reporting of collateral information on trades
- Clearinghouses will clearly determine collateral requirements themselves; what about trades that remain OTC or un-cleared?
- Legislating counterparty risk transparency for regulators is good
- But should be extended in some form to markets, e.g., with a lag
- Prices of new trades often not sufficient to mark old positions
- Need potential exposure and collateral risk, not just MTM values