

Counterparty Risk and Dodd-Frank

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LESSONS FROM THE CRISIS

- The failure of large complex financial institutions can impose costs on the whole economy
- When they are failing, governments are in a compromised position. Unless there are liquidation or resolution mechanisms, governments need to rescue these firms.
- The potential of such a rescue reduces market discipline leading to excessive leverage and risk taking.
- Regulation of systemically risky firms is needed.
- Systemic risks should be reduced.

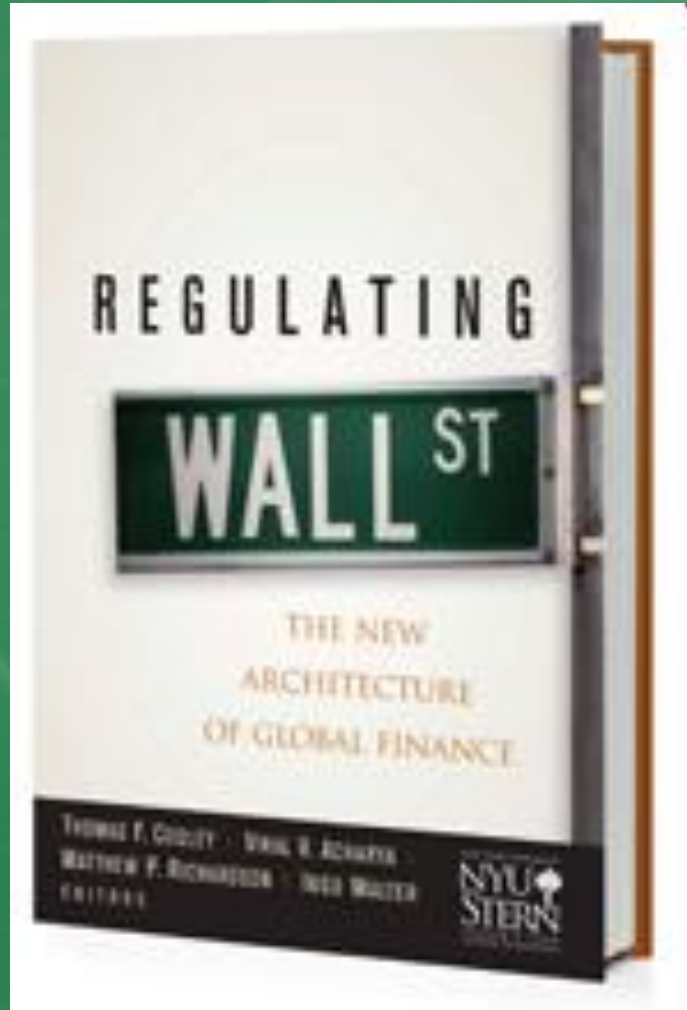
RESTORING
FINANCIAL
STABILITY

How to Repair a Failed System

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STERN VIEW OF DODD-FRANK



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WHAT CAN WE EXPECT?



OR



SYSTEMIC RISK

- *“Financial institutions are systemically important if the failure of the firm to meet its obligations to creditors and customers would have significant adverse consequences for the financial system and the broader economy.”*
 - Daniel Tarullo
 - Federal Reserve Governor

MEASURING SYSTEMIC RISK

- Acharya, Pedersen, Philippon, and Richardson(2010) propose the use of market data to estimate systemic risk contributions of firms.
- Their central measure is Marginal Expected Shortfall or MES.
- MES is used to predict equity losses in a future crisis and when combined with leverage and size data it reveals contributions to systemic risk.
- Brownlees and Engle use new time series methods to estimate and forecast MES.

LEVERAGE

- Highly levered firms have a greater risk of default.
- The default of a firm is far more dangerous if the economy is weak and highly levered as there are no buyers to assume the liabilities.
- Thus firms that are considered systemically risky are firms that face capital shortages just when the financial sector as a whole is capital constrained.

“LEVERAGE EXTERNALITY”

- High leverage is only dangerous for the economy when everyone is doing it – this is an externality!
- This is why regulation is required.

vlab.stern.nyu.edu or
systemicriskranking.stern.nyu.edu

Systemic Risk Top Ten			
TOP 10	SRISK%	MES	MV
Bank Of America	18%	5.93	126770.3
Citigroup	17.79%	5.83	128401.6
JP Morgan Chase	12.08%	4.75	158790.8
Morgan Stanley	11.04%	5.05	40166.86
Wells Fargo	9.66%	6.07	150009.2
Goldman Sachs	6.85%	3.61	85490.06
Prudential Financial	5.49%	4.02	25937.7
MetLife	4.33%	4.86	40316.61
Hartford Financial Services Group	3.09%	5.16	11540.28
Genworth Financial	1.9%	8.59	5904.52

NEW INITIATIVES

- WORKING WITH UNIVERSITE DE LAUSANNE AND THE AUSTRALIAN GRADUATE SCHOOL IN SYDNEY
- WE PLAN TO EXTEND THIS ANALYSIS TO EUROPEAN AND AUSTRALASIAN FIRMS OVER THE NEXT YEAR

COUNTERPARTY RISK AND SYSTEMIC RISK

- Most transactions in the OTC derivatives market establish future financial obligations between counterparties.
- If one becomes insolvent, then these will most likely not be met. Such failures may lead to further insolvencies especially if the positions were important hedges.

PROTECTION

- Collateral and margin accounts provide substantial protection but are not universal.
- Most financial firms monitor their counterparty exposure. Some monitor their exposure to the counterparties of their counterparties
- Information is incomplete and risks are natural.
- When counterparties take on additional risk, some of this spills onto their counterparties. **Externality**
- It is natural that different prices would be offered by different counterparties implying a **counterparty risk premium**.

DODD-FRANK REFORMS

- To reduce this externality, Dodd-Frank requires moving standardized swaps to swap execution facilities and central counterparties.
- The risk of a swap no longer depends upon the counterparty, it depends only on the CCP.
- Where does it go?

RISKS TO THE CCP

- The CCP has risks that it covers with margin and collateral arrangements. These become extremely important.
- Counterparties no longer face rising costs of executing large one sided volumes through risk premiums.
- CCPs deal with this by having concentration limits and possibly credit based margins. When the maximum loss is very big relative to natural margins as in CDS, this may be important.

MARGINS FOR CDS

- How much margin should a CCP require when the reference entity has a non-negligible risk of default?
- Possibly 100% of notional
 - How to deal with recovery when this will be determined by a subsequent auction?
 - How to deal with hedged parties?
- Pool margins across reference names. Risk of simultaneous defaults may be low.
- Accept credit as collateral? (and buy CDS?)

COMPETITION BETWEEN CCPS

- Naturally swaps dealers will prefer CCPs with low margins so there will be a tendency for CCPs to take excessive risk.
- Now the CCPs are likely to be systemically risky institutions. Their failure will lead to widespread distress.
- It is natural that these firms will be under the Financial Stability Oversight Council which is charged with identifying and mitigating systemic risk.

CONCLUSIONS

- SYSTEMIC RISK OF FINANCIAL INSTITUTIONS SHOULD BE REDUCED
- SYSTEMIC RISKS OF CENTRAL COUNTERPARTIES WILL LIKELY INCREASE
- RISK MANAGEMENT OF CCPs IS VERY IMPORTANT
- REGULATION IS IMPORTANT.

