Central Counterparty Clearing

... and Systemic Risk

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What is Clearing?

Definition:

Clearing of financial transactions considers the management of counterparty risk, the risk that a trading partner does not make good on his obligations.

Default? exposure to price or replacement cost risk

Two options:

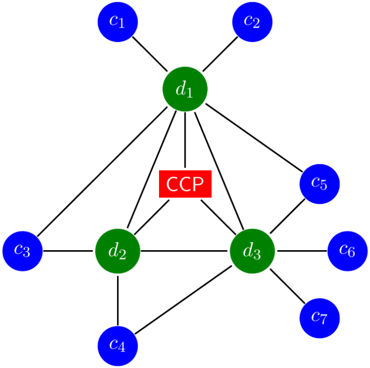
1) Counterparties retain risk and manage it themselves

Bilateral Clearing

2) Transfer risk and delegate its management to a third-party

Central Counterparty (CCP) Clearing

What does a CCP add?



Source: Duffie (2015)

- CCP novates trades
- buyer (seller) to every seller (buyer)
- risk transfer
- risk pooling
- solve contagion (systemic risk)

How did we get there?

$\approx$ 1900	First modern clearinghouses
$\approx$ 2000	Consolidation through mergers
2007-2008	Financial Crisis
2009	G20 summit in Pittsburgh – Mandatory Clearing of OTC Derivatives
2010	ESRB established
2011	ESMA begins its work as part of ESFS
2012	EMIR comes into effect
now	Recovery and Resolution Framework

Great intentions ...

CCPs are sold as the new “Maginot-Line” of the financial system.

- Netting reduces exposures and solves contagion.
- Information warehouses can assess overall risk better.
- Novation pools, diversifies and mutualizes counterparty risk.

CCPs impose proper collateral requirements (“defaultor pays”) .

CCPs add additional default fund (“survivor pays”).

CCPs helps with unwinding losses.

Basic trade-off:

Collateral costs vs. Risk management

... may just shift the problem?

LCH.CLEARNET

CCPs become the most important risk node in the financial system.

- attract and concentrate (additional) risk
- give rise to (collective) moral hazard
- may have less information on cp quality

Conclusion:

CCPs are ...

too-central-to-fail, ...

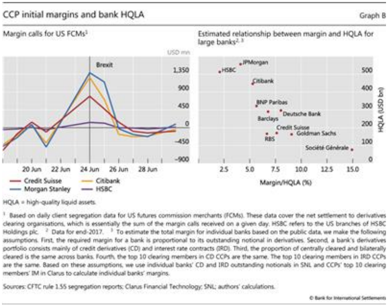
too-important-to-fail, ...

$\longrightarrow$ **systematic risk**.

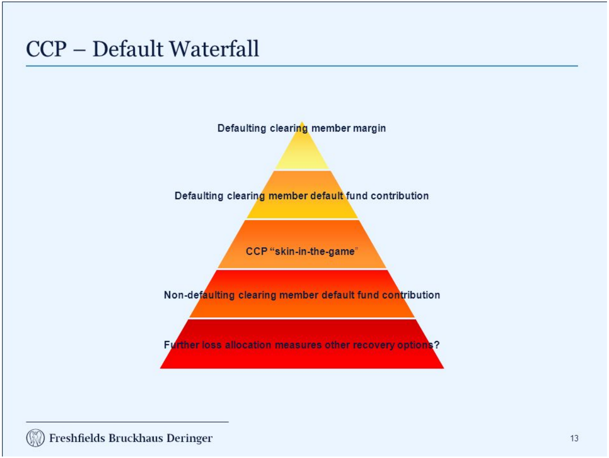
Challenge – Margin Policies

- Initial margins
- Membership Requirements

- Procyclical margins
- Liquidity outflows



Challenge – Resolution



When to let recover, when to resolve, when to resurrect?

Challenge – BREXIT

ESMA: LCH.Clearnet, LME Clear Limited and ICE Clear Europe will be recognised as third-country central counterparties (CCPs) to offer EU-wide services if the UK leaves the EU without a formal agreement

1) Who will be the supervisor of the CCPs?

$\longrightarrow$ cooperation and information sharing

2) What will happen in a (near) member default?

$\longrightarrow$ why should foreign members pay?

$\longrightarrow$ why should locally big members be saved?

3) What will happen in a worst-case scenario of a CCP default?

$\longrightarrow$ loss-sharing agreements not enforceable

Challenge – Capital

Some recent data:

- notional amount outstanding $\approx$ 600 trn USD
- gross market value about 10 trn USD
- gross credit exposure about 2.6 trn USD
- bank capital top 30 banks about 4.5 trn USD
- IR swaps 76% CCP cleared, CDS 54% CCP cleared

Source: BIS

Systemic risk insurance fund for large (systematic) losses

Idea:

- build up reserves for CCP tail risk upfront
- recover losses ex-post

Challenge – Financial Innovation

- new products
- more customization
- better collateral management

This will change the basic, private trade-off between collateral costs and risk management.

What is the scope of CCP clearing?