Derivatives clearing, central counterparties and novation:
The economic implications

by

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The views expressed herein are our own and not necessarily those of the Eurosystem.
Motivation

• Market structure for clearing derivatives has implications for
  – Efficiency
  – Risk management
  – Systemic risk

• Current parallel structures
  – OTC derivatives – historically cleared bilaterally
  – Exchange traded derivatives – cleared through CCPs

• Clearing structures are rapidly evolving
Contribution of this paper

• There already exists related research and ongoing policy discussions regarding
  – Credit markets
  – Payments systems
  – Derivatives

• Derivatives clearing has been little studied
  – (Prior to this conference)

• This paper
  – Outlines the salient economic and legal issues
  – Analyses potential systemic risk and market implications of CCP versus bilateral clearing
Outline of talk

• What makes derivatives clearing special?
• Overview of
  – OTC clearing
  – CCP clearing
• Systemic risk under bilateral and CCP clearing
• Legal prerequisites to CCP clearing
• Progress on establishing legal framework
• What remains to be done?
Derivatives clearing is different

- Payments and securities clearing and settlement are completed in a few hours/days
  - Credit risk is introduced through system choices
    - Not inherent in the process
  - Uncertainty resolved quickly

- Derivatives contracts involve long term credit exposures
  - Transaction is not completed until maturity of contract
  - Credit risk cannot be separated from clearing process
Bilateral clearing

- Contract remains in force between original counterparties
  - Ability to exit contracts is limited
  - One or both counterparties are usually large dealers
  - Dealing is highly concentrated
- Collateral is used to mitigate credit risk
  - Primarily for dealer and inter-dealer exposures
- Positions are opaque
  - No central locus for systemic information
CCP clearing

• Original contract is replaced with (two) contracts with CCP
  – Offsetting contracts are automatically extinguished
• Credit risk mitigation is centrally managed:
  – Member credit screening/monitoring by CCP
  – Margins
  – Access to other member assets
    • Seat
    • CCP is common agent for pursuing legal claims
  – Efficient loss mutualization
    • Quickly attaching on-hand member assets
    • Backup commitments by members
Derivatives clearing and market structure

• Clearing effects market power of
  • Exchanges
  • Dealers
  – Efficiency
    • Easy of entry/exit from contracts
    • Liquidity
    • Costs of transacting

• Ongoing evolution reflects tension between
  – Preserving private advantages
  – Gaining public and private benefits
CCPs versus bilateral clearing

• CCPs clearly reduce likelihood of knock on failures.
  – Losses mutualized over entire member base
• CCPs are likely to reduce probability of market failures.
  – CCP is single relevant counterparty
  – Central monitoring of member credit worthiness
  – Ability of CCP to absorb losses is relatively transparent
CCPs versus bilateral clearing

• CCPs may be marginally better at withstanding common shocks.
  – Wider loss-bearing and greater transparency help
  – May not avoid collapse for truly massive external shocks

• CCPs are themselves systemically important institutions
  – Their failure is potentially more disruptive than any single dealer’s failure
Regulatory intervention

• CCPs’ layers of loss bearing
  – Initial failing member
  – Other members
• Impose market discipline
  – Even if CCP itself is bailed out.
• CCPs provide a central locus of regulatory intervention
  – Central information re/ network of risk exposures
• Quasi-utility status of CCP may mitigate political risks of intervention
Legal foundations of a CCP

The following processes have to be protected from the effects of a member’s bankruptcy by means of contracts and laws:

- Netting
- Finality
- Margin
Novation:
An existing contract is terminated and replaced by two contracts with the CCP

Open offer:
A contract is concluded with the CCP immediately after the matching of trading details
Novation and open offer

Both concepts achieve the same economic result: The CCP is the counterparty and manages contracts for as long as they are in force.

With novation a bilateral contract existed at the beginning, so CCP rules should ensure that bilateral credit exposures cannot re-emerge.

With open offer, there are no prior bilateral contracts.
Consequences of novation and open offer for contracts

The default affects the CCP’s positions; the original non-defaulting counterparty’s positions will not be closed, by contrast with a bilateral close-out agreement.

The CCP – rather than the non-defaulting counterparty under a bilateral agreement – has to enter into new contracts following a default to address its consequences.
Access to derivatives clearing

- CCPs are considered quasi-utilities
- Essential facility theory may apply
- Competition rules for open and fair access
- Compute margin
- CCPs must measure credit exposures
- Maintain financial resources

Operator’s powers to rule on access are contained by competition and risk considerations
Netting and margin legal protection

**European Union**
1. Netting since 1998 in the EU Settlement Finality Directive (SFD);

**United States**
The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCA) for cross-margining and netting in derivatives clearing organisations is the most recent piece of legislation
Regulatory dialogue

European Union
National authorities authorise or recognise a CCP under national laws; some have designated CCPs under the SFD

United States
CFTC or joint SEC-CFTC registration for derivatives clearing organizations

The Committee of European Securities Regulators and the CFTC have launched a common programme to facilitate derivatives business, paying particular attention to clearing
What remains to be done?

Despite the development of standards, there are two issues to address:
1. Customer assets (issues identified since 1995)

Relationship between clearing members and their clients; treatment of client assets in the event of a member’s insolvency

CCP’s powers beyond netting and the realisation of margins after a member’s insolvency
What remains to be done?

2. Cross-border issues

As regional hubs emerge in the EU, there is a need to consider an EU legal act dealing with risk management and competition.

Consideration of multiple defaults or accumulation of market and credit risks with systemic risk implications.
What remains to be done?

2. Cross-border issues

Conflicts of law arising as a result of foreign participants need to be assessed and monitored.

Links between CCPs may help to manage conflicts of law.

Regulatory convergence and cooperation are necessary (the example of the EU is particularly relevant in this respect).
• THANK YOU FOR YOUR ATTENTION