

Crowded Trades, Systemic Risk, and Central Clearing

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November 4, 2016

Outline

Measure CCP exposure (macro-prudentially)

Track CCP exposure in realtime

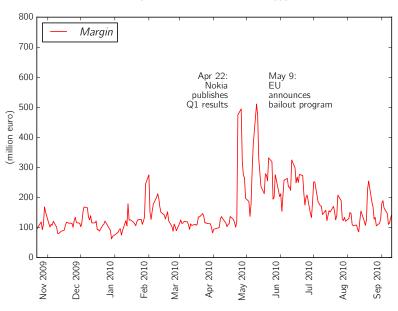
CCP exposure and collateral

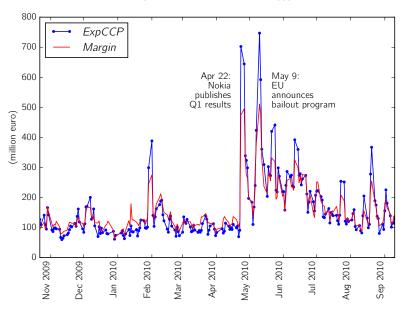
Measure CCP exposure

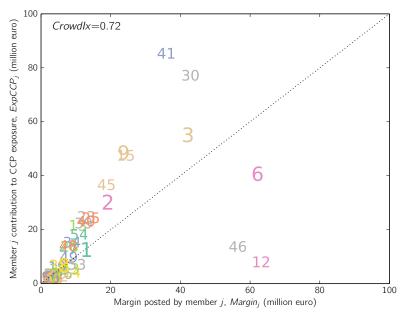
(Menkveld, 2016a)

$$ExpCCP = VaR(\sum_{j} L_{j})$$

Measure CCP exposure (macro-prudentially)







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(Huang and Menkveld, 2016)

Compute $\Delta ExpCCP$

(Huang and Menkveld, 2016)

Compute $\Delta ExpCCP$ Decompose it into

- RetVola
- RetCorr
- PrLevel

(Huang and Menkveld, 2016)

Compute $\Delta ExpCCP$ Decompose it into

- RetVola
- RetCorr
- PrLevel
- TrPosition

(Huang and Menkveld, 2016)

Compute $\Delta ExpCCP$ Decompose it into

- RetVola
- RetCorr
- PrLevel
- TrPosition
 - CICI
 - HoCl
 - HoHo

(Huang and Menkveld, 2016)

Compute $\Delta ExpCCP$ Decompose it into

- RetVola
- RetCorr
- PrLevel
- TrPosition
 - CICI
 - HoCl
 - HoHo
- TrCrowding
 - CICI
 - HoCl
 - HoHo

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CCP exposure and collateral

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CCP exposure and collateral (Menkveld, 2016b)

Analysis of fire sale prices in equilibrium shows

CCP exposure and collateral (Menkveld, 2016b)

Analysis of fire sale prices in equilibrium shows

1. Crowded trades reduce fire sale premium, thus lowering default fund and freeing up capital for liquidity supply

CCP exposure and collateral (Menkveld, 2016b)

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CCP exposure and collateral (Menkveld, 2016b)

Analysis of fire sale prices in equilibrium shows

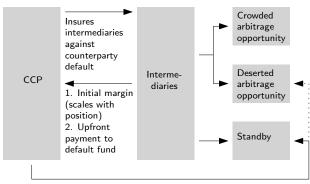
1. Crowded trades reduce fire sale premium, thus lowering default fund and freeing up capital for liquidity supply



2. Crowded trades concentrate capital (inadvertently), thus costly in terms of foregone opportunities



CCP exposure and collateral



CCP pays fire-sale premium when selling the assets it inherited from defaulted intermediaries

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- Huang, Wenqian and Albert J. Menkveld. 2016. "Systemic Risk in Real Time: A Risk Dashboard for Central Clearing Parties (CCPs)." Manuscript, Vrije Universiteit Amsterdam.
- Menkveld, Albert J. 2016a. "Crowded Trades: An Overlooked Systemic Risk for Central Clearing Counterparties." Manuscript, Vrije Universiteit Amsterdam.
- ——. 2016b. "Systemic Risk in Central Clearing: Should Crowded Trades Be Avoided?" Manuscript, Vrije Universiteit Amsterdam.