

## ANALYSIS

# Central counterparties can reduce, but also cause risks

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In securities clearing, a central counterparty (CCP) interposes itself between the counterparties, becoming a buyer to the seller and a seller to the buyer. In so doing, the CCP assumes the counterparty risks related to the transaction. Counterparty risks arise between CCPs from their interoperability arrangements. It is vital for the stability of the financial system that CCPs have in place sound risk management practices.



## Expanded provision of CCP services for Finnish stock market

The financial crisis of 2008 reminded us of the potential of bilateral securities transactions and derivative contracts to generate complex chains and risk concentrations. Counterparty risks may become chained to the extent that the parties involved and the relevant authorities do not have an adequate overall picture of the related direct and indirect risks. In an effort to make counterparty risks more transparent and manageable, reporting and the use of CCP clearing have subsequently been stepped up.[1]<sup>1</sup>

In CCP clearing, original obligations related to a securities or derivatives transaction are replaced by new contracts, in which the CCP interposes itself as a counterparty to each original contracting party. When a CCP interposes itself as a counterparty to transactions, the counterparty risks between the parties translate into risks between the parties and the CCP. This makes CCPs critical market participants, as they may act as counterparties to a huge number of parties and contracts. On the other hand, CCP clearing enables the netting of transactions,<sup>2</sup> which reduces the amount of securities and money needed for the execution of trades.

The range of CCP services on offer for Finnish equity trading is expanding. EuroCCP has already been serving the Finnish markets since 2009. Meanwhile, LCH.Clearnet expanded the range of its

CCP services to share transactions on Nasdaq's Nordic exchanges in November 2015. In addition, SIX x-clear is commencing operations<sup>3</sup> as a third CCP. This trend is part of overall European developments in the sector, and the above CCPs already offer their services on a broad scale to many other trading venues.

## Interoperability arrangements reduce disadvantages of dispersion

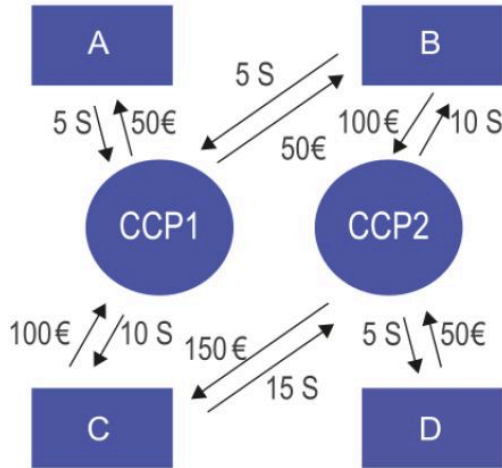
Some CCPs offer interoperability arrangements. An interoperability arrangement enables the clearing of transactions between two counterparties using the services of different CCPs. Clearing based on such an arrangement means that a contract on a securities transaction is split into three contracts. The seller's CCP becomes the buyer to the seller, while the buyer's CCP becomes the counterparty to the buyer. A third contract is concluded between the CCPs in such a way that the seller's CCP is the seller and the buyer's CCP is the buyer.

The operation of one CCP and the operation of interoperable CCPs is illustrated in Charts 1 and 2.

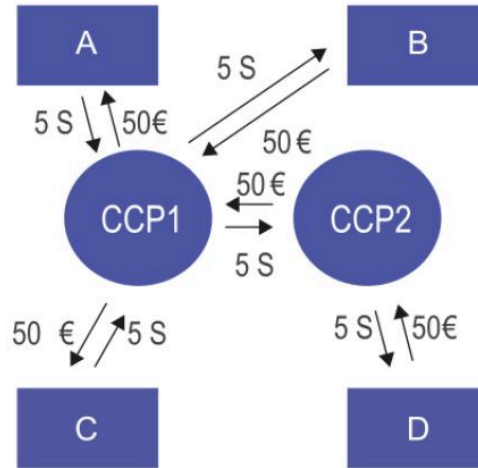
Chart 1.

## Clearing of transactions with two CCPs with and without an interoperability arrangement

Two CCPs without an interoperability arrangement



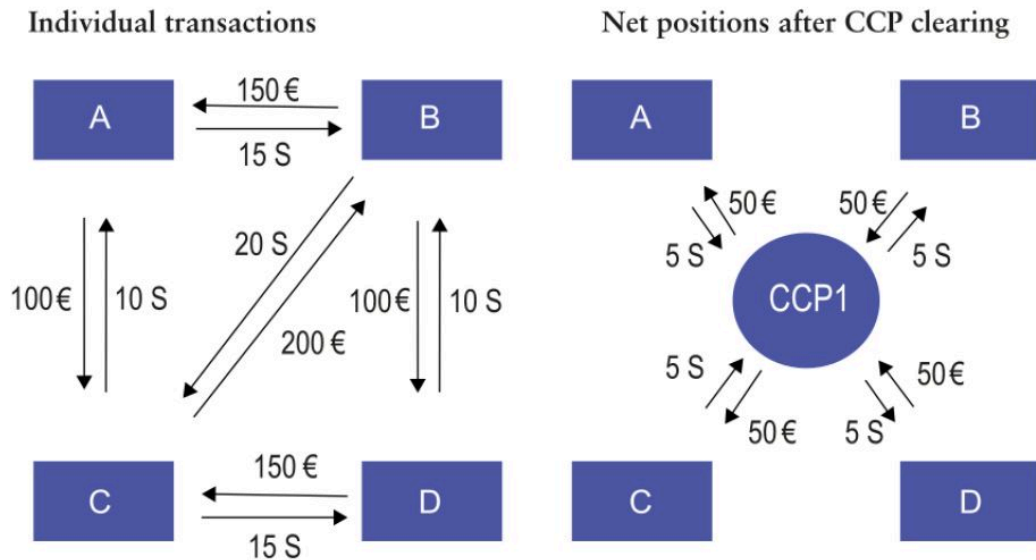
Two CCPs with an interoperability arrangement



The symbol € refers to monetary flows and the letter S to the number of securities. The arrows indicate the direction of monetary and securities flows. D is counterparty only to CCP2. C and B are counterparties to both CCPs. On the right, B and C are counterparties only to the interoperable CCP1.  
 CCP = Central Counterparty  
 Source: Bank of Finland.

Chart 2.

## Individual transactions and transactions cleared with one CCP



The symbol € refers to monetary flows and the letter S to the number of securities. The arrows indicate the direction of monetary and securities flows.

CCP = Central Counterparty

Source: Bank of Finland.

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The examples in Chart 2 illustrate the netting outcome obtained when the same payments in Chart 1 are used with and without an interoperability arrangement and when only party D is a customer of CCP2. In the first option, without an interoperability arrangement, parties B and C are counterparties to both CCPs. In this example, the positions of the parties operating with two different CCPs grow. In the example illustrating an interoperability arrangement where each party is a counterparty to only one CCP, the parties' net positions are the same as in the model involving one CCP in Chart 1. Only the position between the CCPs represents a difference vis-à-vis the model with one CCP.

From the perspective of market competition, it is desirable that markets are served by several CCPs. However, distribution of clearing transactions among several different CCPs, without specific additional arrangements, could worsen the netting outcome and reduce the benefits from CCP clearing. CCP interoperability arrangements mitigate such drawbacks. Interoperability arrangements have also caused concern and given rise to debate, as they lead to increasing complexity in arrangements and risk management, and bring systemically important CCPs

together as counterparties to each other. It is important to prevent risks from spilling over via interoperability arrangements between CCPs.

CCP activity is subject to authorisation and official supervision. CCPs need to comply with strict prudential requirements and must collect margins from their clearing members (margin requirements) and maintain a default fund and their own financial resources. The margins, the default fund and the CCP's own financial resources must cover the simultaneous default of the two clearing members to which the CCP has the largest exposures under extreme but plausible market conditions.<sup>4</sup> To minimise contagion risks, interoperable CCPs provide margins to each other but do not participate in each other's default funds.

Overall, CCPs play a key role as part of the critical financial market infrastructure. On one hand, CCPs contribute to risk management; on the other hand, they may also act as sources of risk. As a consequence, CCPs' risk management and interoperability arrangements must be on a sound footing so as not to pose a threat to the stability of the financial markets.

## Footnotes

1. EMIR [http://ec.europa.eu/finance/financial-markets/derivatives/index\\_en.htm](http://ec.europa.eu/finance/financial-markets/derivatives/index_en.htm). ↑
2. The combination of similar obligations so that only one net obligation remains. ↑
3. See <https://newsclient.omxgroup.com/cdsPublic/viewDisclosure.action?disclosureId=702013&lang=en>. ↑
4. EMIR [http://ec.europa.eu/finance/financial-markets/derivatives/index\\_en.htm](http://ec.europa.eu/finance/financial-markets/derivatives/index_en.htm) ↑

## Key words

central counterparty, central counterparty interoperability, counterparty risk, netting