THE VALUE PROPOSITION OF CENTRAL COUNTERPARTY CLEARING HOUSES

EXECUTIVE SUMMARY

This paper – produced by CCP12, the global association of central counterparties – summarises the value proposition of central counterparty clearing houses (CCPs).

Clearing houses contribute significantly to the efficiency of financial markets and in doing so cut the average costs of trading and increase the profitability of their users. Where they become central counterparty, clearing houses also provide a critical risk mitigation in those markets and in doing so increase the capital efficiency of their users. These benefits in terms of efficiency and risk mitigation have been particularly important in recent times given the global turmoil in financial markets post sub-prime.

The paper begins with some definitions before considering the benefits provided by CCPs in their roles as both clearing houses and central counterparties. It then reviews the role and value of CCPs in times of market turmoil, before concluding by considering the future value proposition of CCPs.

DEFINITIONS

A **clearing house** is an organization that establishes and records obligations arising from trading on a marketplace and ensures that those obligations are processed according to the relevant rules. This may involve interfacing with a central securities depository (CSD), or similar settlement facility, to ensure that the trades are settled. It may also involve netting of those trades prior to settlement.

A clearing house acts as a **central counterparty** when it interposes itself, directly or indirectly, between the transaction counterparties in order to assume their rights and obligations, acting as the direct or indirect buyer to every seller and the direct or indirect seller to every buyer. The most common, but by no means only, legal process to achieve this is called “novation”, in which two new contracts are created – between the CCP and the buyer, and the CCP and the seller – to replace the single, original contract between the two parties. In most cases, CCPs act as central counterparty on a principal-to-principal basis, meaning that the buyers and sellers are participants (or members) of the clearinghouse, rather than their underlying clients.

THE BENEFITS OF A CLEARING HOUSE

> “Post-trade clearing and settlement are … the central nervous system of the financial system … [and] ... are critical for the performance of the economy.”
> Federal Reserve Bank of Chicago, Economic Perspectives, Q4 2006

Clearing houses improve the efficacy of financial markets and thereby lower the average cost of trading by making trade processing more efficient because they:

1. **Standardize and automate trade capture and post-trade processing**, removing the need for bilateral, potentially manual reconciliations, reducing processing errors and operational risk, and providing straight-through-processing (STP) to back office systems.
2. **Provide a “golden record” of each trade**, its status, and payments relating to it – including such events as coupons and corporate actions – thus reducing processing errors and disputes and operational risk.

3. Provide, in the form of their rulebooks, a standard set of conditions of business, thereby **minimising legal risk**.
4. Provide, or interface with, **robust payment systems**.
5. Sustain, where the trade execution process itself is anonymous, **full post-trade anonymity**.
6. Perform, or enable CSDs to perform, **netting of payments and settlements**, thereby reducing settlement obligations and systemic and liquidity risks.
7. Provide, where necessary, **efficient portfolio management mechanisms** (e.g. transfers, close-outs, tear-ups etc.).
8. Provide systems and procedures, and centralized investment therein, which ensure **high capacity, low latency and low operational risk in trade processing**.

THE BENEFITS OF A CENTRAL COUNTERPARTY

> "There are good reasons to suppose that a central counterparty can insulate a market against crisis … A central counterparty can also provide a bulwark against more indirect forms of market contagion during a crisis."
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> Bank of England, Financial Stability Review, June 1999

A CCP benefits its participants – including their profitability – and the wider marketplace because it can:

1. **Mitigate against counterparty credit risk and facilitate multilateral netting of exposures** through the legal or technical substitution of one high quality counterparty (the CCP) for many, potentially lower quality, bilateral counterparties; this also has the effect of reducing the need for credit analysis.
2. **Reduce risk by netting exposures** to that single (central) counterparty, thus reducing the market-wide requirements for collateralisation (when compared to a bilateral market).
3. **Increase certainty** by:
   a. acting as central counterparty through to contract expiry and, where relevant, even to contract delivery;
   b. providing participants with information on its role and the risks associated therewith; and,
   c. being itself subject to transparent and effective regulation and oversight.
4. Where such techniques are applied, **improve the management of replacement cost risk** within a market through the marking-to-market of unsettled trades and the use of margin; such centralized mark-to-market and collateralization disciplines also reduce back office and legal effort and costs.
5. **Reduce the potential systemic impact of a default** by undertaking to maintain adequate combinations of margin, liquidity, capital or other financial resources to deal with such an event without impacting other participants.
6. **Reduce uncertainty around a default event** – and the need for bilateral action by participants – by having procedures for dealing with such an event which are clearly defined, transparent and, where possible, protected by insolvency law.
7. **Reduce balance sheet usage** by reducing exposures on the asset side of the balance sheet and by reducing the allocation of capital to support trading on the liability side.
8. By reducing the allocation of capital, **give participants the opportunity to improve their own credit standing** by retaining the capital and thus reducing funding costs and increasing their attractiveness to clients; an improved capital position can also assist in maintaining or enhancing credit ratings.

9. **Increase the effective capacity, volume, liquidity and product innovation of the marketplace** through netting exposures and reducing the capital required and balance sheet used to support participants' trading activity.
10. **Reduce spreads** since anonymity reduces the market impact of position unwinds, while reduced balanced sheet, capital and credit line usage will also be reflected in execution.
11. **Increase return on capital and risk-adjusted return on capital** by reducing operational costs and potential credit losses and by lowering capital allocated.
12. Help regulators to **instil capital adequacy and operational best practice** through requirements on its participants, thus ensuring that risk is allocated to a wider constituency that is able to bear it.
13. **Assist participants in managing their own risk** through the setting of market minimum margin rates and collateral acceptability standards as well as other risk management disciplines such as intraday calls and stress testing.

CCPs IN TIMES OF MARKET TURMOIL

> "The CCP acts as a kind of 'shock absorber' to the market in the event of the default of one or more market participants, allowing the net market impact of such an event to be managed with the least disruption. Recent events with the Lehman bankruptcy (and many earlier incidents) have proved that this approach works extremely well."
> Mark Yallop, Group Chief Operating Officer, ICAP plc, November 2008

In recent history, CCPs globally have proved themselves to be robust over a set of market-wide events including extreme price volatility and participant defaults.

In terms of extreme price volatility, this has included historic events such as the 1987 stock market crash as well as more recent events such as the sub-prime credit crash. The resilience of CCPs in times of extreme price volatility is enhanced by the fact that CCPs are only exposed to clearing participant default, not to market risks or losses of their clearing participants which fall short of causing the default of those participants.

In terms of participant defaults, major global CCPs have survived defaults of clearing participants such as Drexel Burnham Lambert (1990), Barings (1995), Griffin (1998), Enron (2001), Refco (2005) and Lehmans[1] (2008). In all cases, major global CCPs coped with these default events by closing-out or transferring the positions of the defaulters, without impacting other participants, and within the margin and other financial resources available to them. Anecdotally, the certainty about counterparty creditworthiness provided by CCPs also helped market activity to continue despite, and recover from, these events.

Participants of CCPs internationally have themselves proved robust in recent years against defaults of large clients such as LTCM (1998) and Amaranth (2006).

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[1] The collapse of US investment bank Lehman Brothers in late 2008 precipitated a one day fall of around five per cent in major equity market indices, and falls of around ten per cent in major banking stocks. During this time CCPs around the world inherited Lehman Brothers' securities market positions as the bank defaulted on its obligations. Despite the massive market turmoil, CCPs unwound, hedged, liquidated, and transferred millions of positions and client accounts worth trillions of dollars, providing stability and certainty to already fragile markets. For more information, please refer to the separate CCP12 paper "*Central Counterparty Default Management and the Collapse of Lehman Brothers*".

THE VALUE PROPOSITION OF CCPS – THE FUTURE

> “A top priority for The President's Working Group on Financial Markets … is to oversee the implementation of central counterparty services for CDS … [which] could be an important step in reducing the counterparty risks inherent in the CDS market, and thereby help mitigate potential systemic impacts.”
> Erik Sirri, Director, Division of Trading and Markets, SEC, November 2008

The benefits of central counterparty clearing services outlined above have been emphasized by the credit crisis of 2007 and 2008. There is an increasing recognition that these services have a wider application than exchange-traded markets. Building on prior developments in the clearing of over-the-counter (OTC) bilateral markets, several CCPs have launched initiatives to clear credit default swaps (CDS), securities lending, energy trading and other traditionally bilateral markets. Some prior initiatives of this type have tended to involve clearing services where the clearing house does not become CCP. However, they are now tending, given the focus on credit risk, to include CCP services. This trend – towards OTC business being cleared by CCPs – is likely to continue given the demand from regulators and market participants for such initiatives.

ABOUT CCP12

CCP12 currently has 28 member organisations encompassing over 35 CCPs operating across the Americas, Europe and Asia. CCP12 welcomes newly established or proposed CCPs for exchange-traded business or OTC markets.

CCP12’s mission is to share information, support development of standards and liaise with regulators, industry groups and global market users to foster dialogue on areas of mutual interest and concern, and to promote best practices in CCP risk management.

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