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Creating Effective Inter-CCP Links for Derivatives

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Recent coverage in the financial press suggests that CCPs are finally beginning to seriously consider the establishment of peer-to-peer linked clearing for OTC derivatives. The successful creation of such links could have lasting benefits for OTC derivatives markets and the banks and buyside institutions they serve – if a number of key legal, technology, risk and operational challenged can be overcome.

What is peer-to-peer linked clearing?

Peer-to-peer linked clearing is effectively a legal and operational agreement between two CCPs, which allows their two participant populations to trade with one another on a cleared basis[1]. Behind the scenes, the CCPs will then maintain a relationship with one another to facilitate the processing of such trades – which results in a bilateral exposure between the two CCPs.

From the perspective of the user, a relationship can be maintained with a single CCP, while potentially significantly extending the range of available counterparties. For the CCP, there is a balance to be struck, between the benefits such a service will offer to its Clearing Participants and clients, and the new risks introduced by a bilateral relationship with another CCP.

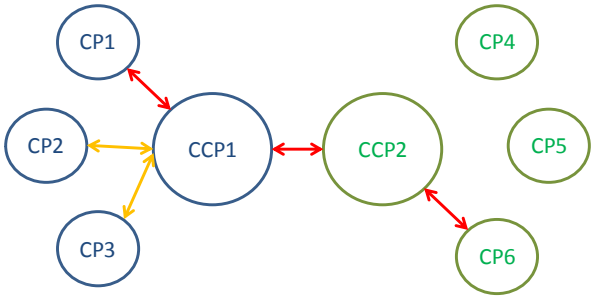

Diagram - When CP2 and CP3 clear a trade, this creates two new exposures – between CP2 and CCP1, and CP3 and CCP1 (Orange). However, under a linked CCP model, when CP1 trades with CP6 three new exposures are created – between CP1 and CCP1, CP6 and CCP2 and CCP1 and CCP2 (Red).

A number of linked clearing arrangements have already been successfully implemented globally, providing tangible benefits for both Clearing Participants and clients. The most prominent example is interoperability for cash equity clearing in Europe, which has had a lasting impact on the cost of clearing for cash equity in the EU. However, there are also a number of examples of CCPs working together to provide linked clearing for other markets, such as linked clearing of the cash bond market in Italy and France, and unidirectional links established between a small number of futures exchanges.

The Benefits of Linked Clearing

The benefits of linked clearing for Clearing Participants (both banks and their buyside clients), and the market itself can potentially be significant:

- Cross border OTC derivative trades already exist in the banking system on a bilateral basis. Bringing these trades into clearing will satisfy regulatory clearing mandates (where applicable) and realise significant efficiencies through steering these transactions into market infrastructure specifically designed for the task.
- Linked clearing connects pools of liquidity, and simultaneously extends the range of counterparties available to each participant in the market. For example, connecting a US-based USD Interest Rate Swaps market to other offshore markets for USD Interest Rate Swaps would create a single, integrated and extended marketplace, countering the effects of fragmentation.
- Such connections would arguably have a positive effect on pricing, allowing Clearing Participants and clients to access the best price for the transaction they require, regardless of the geographical location of the market participant offering the price.
- In addition, linking two geographically distinct liquidity pools may also allow opportunities to extended trading hours, and ensure greater liquidity provision through

[1] There are a number of other inter-CCP link models, such as full multi-CCP interoperability, CCPs allowing other CCPs to become Clearing Participants, and linked clearing with inter-CCP trade give-ups. However, this paper principally considers peer-to-peer linked clearing.

the full trading day.

- There is also an operational benefit to Clearing Participants and clients, allowing them to establish access to just a single CCP, which would then allow them to access a broad range of markets and counterparties via links. To date, establishing links to multiple CCPs has proven a time-consuming and costly exercise for many institutions.

- By utilising the local CCP as their linked CCP of choice, other benefits could also be realised for Clearing Participants and their clients, such as the ability to hold collateral and perform all operational processing onshore.

However, although there are a number of potential benefits to be realised, the legal, technical, risk and operational challenges must first be sufficiently addressed.

Legal Challenges to Linked Clearing

Every CCP clearing service must have a sound legal basis, supported by local laws and regulations. The new peer-to-peer links mooted in the financial press typically concern linkage agreements across borders, and we believe this will be an increasing trend. To ensure the success of such links, the legal frameworks in the two jurisdictions concerned will need to be carefully considered:

- **Bankruptcy Law** – the ability to efficiently and effectively manage a default situation is essential to CCPs. In establishing a link, the two CCPs concerned must ensure that there are no conflicts of bankruptcy law which could potentially delay or undermine the default management process;

- **Recovery and Resolution Plans** – Recovery and resolution plans always require regulatory support and must be legally sound. Before a link can be established, agreements must be reached between all regulators and the linked CCPs specifying a framework to cover the various scenarios where one or both CCPs are required to execute a recovery or resolution plan. It is particularly important to ensure adequate protection for the non-defaulting CCP if the link is to continue to operate through the execution of a recovery plan;

- **Settlement Finality** – CCPs subject to a link must also consider settlement finality when designing a link. As the link will be utilised for the settlement of the trade legs between the two CCPs, it must be ensured that there is never any doubt as to the location and ownership of funds;

- **Enforceability of Rules** – A legal opinion should be sought, to ensure that the rules which govern the link are enforceable in all applicable jurisdictions. Choice of governing law and jurisdiction for dispute resolution is critical for any linked service;

- **Dispute Management** – A robust system for dispute management relating to the link agreement is also an important consideration; and

- **Regulatory and Legal Change** – Any link agreement must consider the possibility of future legal and regulatory change which may affect the ongoing operation of the link. Wherever possible, procedures should be established which detail the approach for managing such changes, and specifying the conditions and methodology for dissolving the link should a change prove insurmountable.

Technical Challenges to Linked Clearing

The technical challenges to the establishment of a link will vary depending

on the CCPs involved, and the flexibility and compatibility of their systems. Where CCPs have highly configurable systems in place, key requirements such as workflows, rules, messaging and reporting can in theory be built to meet the business requirements. However, for less flexible, legacy systems there may be significant challenges to surmount.

- **Connectivity Between CCPs** - The connectivity between the two CCPs would need to facilitate real-time or near real-time information and message exchange for certain key tasks, such as trade acceptance. There are a number of options which CCPs could potentially utilise for such connectivity, and the availability of flexible API's at each CCP would be highly beneficial.

- **Trade Validation and Acceptance** - Linked CCPs will need to have full alignment of the validation workflows and acceptance/rejection criteria for operating efficiencies to be gained. Ideally this should allow for a Clearing Participant or client submitting a trade to its CCP to be accepted simultaneously by both CCPs. This in turn would require the two CCPs to maintain the ability to send acceptance messages to one another within a short timeframe, particularly where there are regulatory requirements around clearing certainty – such as the CFTC 10 second rule.

- **Trade Information** - Trade Information on linked CCP trades for end users should ideally be made available from a portal or web based tool at each CCP. This would potentially necessitate real time connectivity through a portal/web tool to Clearing Participants of one CCP, to pull information about trades conducted across the link. One potential solution may be to have a common trade store sitting in between the two CCPs.

Operational Challenges to Linked Clearing

CCPs looking to established linked clearing for the benefit of their participants face a number of operational challenges. Important amongst these are:

- **Trade Acceptance** – both CCPs need to assent to the clearing of any trade which will be the subject of linked clearing. As such, a mechanism must be established for both CCPs to be able to simultaneously novate their Clearing Participant-facing trade legs, whilst creating a new trade between themselves.

- **Credit Acceptance** – the linked CCPs are also likely to require some alignment on credit acceptance. It will be essential that any submitted trade is not accepted by one CCP while rejected by the other.

- **Operational Alignment** – a key area of discussion between two CCPs will be the alignment of operational processes. To maintain good practice, the CCPs will need to exchange Variation Margin with one another at least once a day – potentially challenging when managing operational procedures across time zones.

In principal all of these operational challenges can be overcome. However, close co-ordination and co-operation between the two linked CCPs will be critical to the success of the link.

Risk Management Challenges to Linked CCPs

Alongside the operational challenges to linked clearing, there are a number of novel risks which any linked CCP and its Clearing Participants must be aware of. The CPSS-IOSCO Principles for Financial Market Infrastructures establish a baseline in this

regard, and the regime in the EU also speaks directly to Inter-CCP risk management standards. Some of the key areas of concern include:

- **Consistent Valuation Methodologies** – to ensure that Variation Margin can be exchanged between the two CCPs, the CCPs must perform a full valuation of their exposures to one another at least once a day. This must also be performed on an entirely consistent basis to ensure a risk neutral position is achieved, and to prevent any dispute between the two CCPs.

- **Scale of Exposures** – The scale of the exposure between the two CCPs must be closely monitored to ensure it can be effectively managed. Initially, as transactions across the link grow in volume, the systemic risk and potential cost to the CCPs the link will generate will also increase. However, once the link reaches a critical mass, netting benefits within the link portfolio will be realised, both increasing the efficiency of the link, and reducing total systemic risk. Linked CCPs will also need to consider whether they should apply techniques to reduce the total volume of trades in the link, such as netting or compressing their exposures to one another.

- **Exposures Calculations** – When assessing the risk associated with the link, the two CCPs will need to calculate their exposures against one another. This calculation should ideally be either broadly consistent or mutually agreeable, to avoid disputes. In addition, the exposures between the two CCPs are effectively bilateral, and have potential systemic risk implications, making a suitably conservative exposure calculation appropriate (i.e. an equal level of rigour as would be applied to bilateral transactions between banks).

- **Consistent Risk Management Approaches** – A degree of consistency in risk appetite and risk management frameworks will also be key in ensuring the success of linked clearing, to ensure both CCPs are on an equal footing. If alignment of risk management standards cannot be achieved, then areas of difference must be specifically addressed in the link agreement.

- **Reciprocal Collateralisation** – Once calculated, the exposure between the two CCPs should then be collateralised. To ensure its safety, such collateral should be held by a third party, ideally by an institution which is not a participant of either CCP, and in a manner which cannot be subject to legal challenge in the event of a CCP default.

- **Contagion Risk** – There is also an important systemic risk associated with linked clearing, that the failure of one CCP may cause the sequential failure of other linked CCPs, due to unmanageable contagion. As such, proper firewalls must be created between CCPs, to prevent such a systemic risk event from crystallising.

The greatest barrier to the establishment of a link has traditionally been considered to be the requirement for reciprocal collateralisation. CCPs should careful weigh the benefits of the link against the cost of collateralisation, to ensure that the additional cost associated with reciprocal collateralisation does not undermine the core business case for the link.

Default Management Challenges

As with any CCP innovation, the implications for Default Management are also a key consideration.

In the case of a Clearing Participant default, there should in principal be no impact – with each CCP remaining responsible for the resolution of its own Clearing Participants.

There may be opportunities for co-operation to enhance the Default Management process in cases where:

- The defaulter is a member of both CCPs, and the CCPs can then co-operate to achieve a more efficient resolution (including intra-CCP hedging possibly); or
- There is an opportunity for participants of both CCPs to participate in the auction of a defaulted portfolio – although the complexity of resolving a cross-CCP auction transfer may preclude this option.

Far more complex is the need to plan for the resolution of a linked CCP default. Exposures between the two CCPs can in principal be significantly greater than those between two Clearing Participants – as the exposure between the two CCPs is the aggregate of all trades across the link. CCPs will need to establish back-up arrangements for cases where a CCP default leaves a defaulted portfolio which is of a size which cannot be liquidated in the local market.

Conclusions

The benefits of linked clearing for CCPs, Clearing Participants and clients are significant, and there appears to be some current impetus towards the establishment of new link agreements. We consider this a positive development for global OTC derivative markets, which can help to counter the effect of fragmentation observed to date.

However, the establishment of a linked clearing arrangement is not a trivial task – significant co-operation will be required between the two CCPs embarking on the creation of a link. In addition, new legal frameworks, operational processes and risk controls will need to be established to support the link. These must be demonstrably robust to satisfy the regulators for both CCPs, and ensure that new links do not create unmanageable systemic risks

CCPs should engage with the changes to the market which linked clearing may bring, and formulate a strategy which will ensure the greatest benefit for their participants. Failure to do so will engender a risk of losing ground to more connected competitors.

About Catalyst

Catalyst is the world's leading consultancy for central counterparty clearing for OTC derivatives – having worked with the majority of the world's most important OTC CCPs, as well as many of the clearing brokers and buyside firms who are the CCPs users.

Catalyst has unrivalled experience in the development of Inter-CCP risk and default management models, and can assist CCPs as they look to forge link with partner CCPs around the globe.

Catalyst is also uniquely placed to assist clearing brokers and buyside firms as they look to navigate the global clearing landscape, and establish their own clearing strategy and relationships.

Glossary

- **CPSS-IOSCO** – Committee on Payment and Settlement Systems/International Organization of Securities Commissions
- **CFTC** – Commodity Futures Trading Commission
- **API** – Application Programming Interface.

Meet our authors

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Catalyst uniquely combines teams of financial markets experts with organisational change specialists to deliver enduring results. We provide honest guidance to help you succeed. We are catalysts for enduring excellence.

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