

**Financial Research Advisory Committee Meeting
February 23, 2017**

Discussion Topic: Research Agenda for Central Counterparties Program

The expansion of central clearing was one of the main regulatory responses to the financial crisis of 2007-2009. Central clearing increases transparency and has the potential to improve risk management. At the same time, it concentrates risks at the central counterparty (CCP). These risks need to be better understood and analyzed by regulators and market participants. Central clearing and clearing requirements also create incentives for market participants that can have unintended consequences.

The OFR, with its ability to look across the financial system and collect essential financial data from federal financial regulators and market participants, is in a unique position to gather data and study CCPs with a cross-market and cross-institutional focus. In July 2015, the OFR's Financial Research Advisory Committee recommended that the OFR conduct further analysis on the risks in CCPs and launch a data collection.

CCP Data

The OFR used the Committee's 2015 recommendation, including the listing of various data elements, as a basis for considering the issue. At this stage of our approach, and the various sources of data that we have located, we believe they are currently sufficient to carry out our planned research agenda. We may, however, revisit data elements and sources with the Committee in the future, always with the underlying objective of avoiding reporting duplication and minimizing burden. We have organized data in three groups based on the source of the information: public; supervisory; and transaction level.

Publicly available data, provided by CCPs are refreshed periodically. Rulebooks and annual reports are published annually, and quantitative disclosures are published quarterly. Publicly available data include identifiers for each CCP and each clearing service; information on type of ownership and connections with other CCPs; information on CCP committees and governance; aggregate information on the waterfall of CCP resources; information on the rules governing the default of a clearing member; and membership rules and violations.

Supervisory data are available to direct supervisors of CCPs. Supervisory data are updated at different frequencies. Supervisory data include information on stress testing scenarios; documentation on risk management; facilities associated with a CCP and the CCP's exposure to them; and clearing-member level information such as the positions and funds contributed and committed by each member.

Transaction level data are also supervisory information. The data include over-the-counter bilateral transactions with information on details describing the transaction, whether the transaction is cleared or not, and identifiers for the parties to the transaction. Cleared transactions include data fields that allow linking each cleared transaction to the original bilateral transaction. Transaction level data are separated from other supervisory data to reflect that these data are located at swap data repositories.

CCP Research

We have identified several areas that we are either currently analyzing or are looking to analyze in the future.

1. Evaluating the Quality of CCP Risk Management

Evaluating the quality of risk management is crucial to determine the resilience of the financial system. CCPs vary substantially in many areas: the types of products they clear; the order and relative magnitudes of the risk waterfall, including the size of the guarantee fund, the amount of CCP skin-in-the-game, and the reliance on clearing members' unfunded guarantee fund contributions; the specifics of margin rules, concentration charges, types of guarantee fund collateral, and liquidity management; CCP governance, including membership requirements; ownership structure; and regulatory requirements they are subject to across jurisdictions. A few specific questions include:

- Is the amount of initial margin collected by the CCPs consistent with their rules?
- Are the contributions to the default fund by members, the amount of skin-in-the-game by the CCP, and the CCPs' assessment powers sufficient to cover losses beyond those covered by the initial margin?
- Are CCPs sufficiently protected against risks associated with cross-margining agreements, investments by CCPs, and the facilities they use for various services?
- What are the risks of cross-margining different cleared products?
- What sources of capital reserves are appropriate to address operational risk?

2. Systemwide Stress Tests: Measuring the Resilience of CCPs and Clearing Members

Stress testing of individual CCPs determines their resilience and is a way to evaluate the quality of their risk management. Systemwide stress tests should evaluate the resilience of the entire system to losses. A few specific questions include:

- What are the advantages and disadvantages of using common stress tests for CCPs that clear different products?
- Is joint scenario design appropriate for CCPs and clearing members?
- How should liquidity concerns be incorporated in stress tests?
- How should default assumptions be adjusted to be consistent with the stress scenarios?
- How should reverse stress tests be designed?

3. Central Clearing Impact and Market Structure

The expanded mandate to centrally clear over-the-counter bilateral transactions has consequences in the markets of the instruments that are cleared and in the way that central counterparties evolve. A few specific questions include:

- What are the costs and benefits of central clearing?
- Which markets and products are most (or least) amenable to central clearing?
- How has the introduction of mandated central clearing affected market liquidity, market concentration, and market volatility?

- How does the cyclicity of margin requirements affect market liquidity?
- What are the risks and benefits of having a single or multiple CCPs clear a market?
- What is the impact of CCP competition domestically and internationally?

4. Failure, Recovery, and Resolution

If a central counterparty faces significant losses, supervisors determine whether to prioritize recovery of the CCP or its resolution. The determination is likely to have significant consequences for clearing members of the CCP as well as other market participants, including other CCPs. A few specific questions include:

- How do position auctions affect market liquidity?
- Do CCP rules for transferring the position of a failed clearing member have unintended consequences?
- What are the incentives created by the end of the waterfall rules and regulations?
- What are the lessons learned from previous CCP failures?
- Under what circumstances is resolution feasible or desirable, and when is recovery preferable?
- What are the necessary elements to construct an effective recovery and resolution plan?
 - When multiple CCPs exist?
 - When a single CCP exists?

5. Public and Supervisory Monitoring

Individual CCPs provide public information to help determine their individual resilience. Beyond publicly available information, CCPs provide confidential information to supervisors. Information can be aggregated and reported to the public. A few specific questions include:

- What are the appropriate metrics to track CCP risks?
- Are publicly available data adequate for monitoring, or should supervisory data be used?
- How should data be reported in order to avoid potential market disruptions?

Questions for Discussion

1. What questions or market developments are we overlooking?
2. Which questions should we prioritize?
3. What data should we prioritize?