THE FUTURE OF CLEARING
NORDIC TRADING BRIEFING

STOCKHOLM 19 SEPTEMBER 2019
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Introduction

Magnus Burkl, CFA
WFE & Oliver Wyman published a joint report, taking stock of post-crisis developments in Clearing and exploring forward-looking priorities.

Overview

- Report published April 2019, co-authored by the World Federation of Exchanges and Oliver Wyman,
- Findings draw on existing studies and quantitative assessments performed by industry bodies, as well as a proprietary survey completed by 20 respondents from across the WFE CCP member base
- The report covers a range of backward and forward-looking topics
  - Relevant post-crisis policy and regulatory frameworks, with a specific focus on the reforms aimed at encouraging greater use of clearing
  - Impacts of reforms on CCPs, and other market participants
  - Evolving nature of clearing services and market structure
  - Key expected areas of focus for the industry in the next 5-10 years
  - Opportunities for the industry, supervisors and other stakeholders to build the CCP of the future and a recommended framework for the market structure that supports this vision
Live Poll
What do you think CCPs should be focusing on over the next five years?
Select no more than 4 options

- Ensuring efficacy of risk management practices (outside of Operational Risk)
- Implementing mechanisms to enhance collateral efficiency
- Enhancing operational resilience
- Enhancing risk governance structures
- Exploring options for cleared asset class/product expansion
- Commercial model considerations (fine tuning client offerings, pricing models, exploring adjacent offerings)
- Regional CCP consolidation or other M&A

We will look at your results and compare it with the results from our survey with WFE CCP members towards the end of this presentation
Post-crisis regulatory reforms have had a significant impact on CCPs, their stakeholders and capital markets activities more broadly.
Consequence of reforms was to put CCPs front and centre

- CCPs performing critical risk management functions since well before the crisis
  - Counterparty credit risk management
  - Transparency
  - Certainty

Consequence of clearing mandate is growth in OTC clearing offering

Over 70 CCPs globally – variation in:
- Products cleared
- Geographic reach
- Ownership structures

• Consistency in commitment to the PFMI and core risk management function

Illustration of CCP default waterfall

Growth in OTC CCPs by asset class
# CCPs, 2013-2018

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>April 2013</th>
<th>June 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rates</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>Credit</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Commodities</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Equities</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>FX</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: BIS derivatives statistics 2018, Oliver Wyman
**TAKing stock: what has been achieved so far?**

Progress has been made but still work to be done

<table>
<thead>
<tr>
<th>Significant progress post-crisis</th>
<th>Remaining challenges for Clearing</th>
<th>Next steps</th>
</tr>
</thead>
</table>
| • Banking system “better capitalised, less leveraged and more liquid” | 1. Areas of incomplete / inconsistent implementation  
  - Variation in the use of central clearing across G20  
  - Incomplete implementation of capital requirements for Bank exposures to CCPs  
  - Delays or exemptions to clearing obligations | ➢ Standard-setting bodies to work with regulators to finalise implementation of G20 reform initiatives |
| • Similarly in MI  
  – New post-crisis reg framework largely in place  
  – Financial system more resilient  
  – OTC market simpler and more transparent | 2. Interaction of reforms potentially undermining reform objectives  
  - Impact of some banking regulations (e.g. LR) on associated costs and access to clearing  
  - Clearing activity pushed towards concentrated membership model (80% IM for Rates in 5 bank-affiliated members) | ➢ Address identified barriers to clearing and outstanding challenges to incentives to clear |
| • Large move towards clearing of OTC – esp. Rates & Credit | 3. Understanding the impact of reforms on the clearing ecosystem  
  - Concentration in OTC clearing landscape, but transparency  
  - High levels of interconnectivity | ➢ Encourage cross-jurisdictional harmonisation of standards/regulations (where appropriate) |
A range of forward-looking influences have implications for future areas of focus for CCPs, their stakeholders and supervisors.

**Forward-looking influences**

1. **Next wave of regulatory focus**
   - Evolution of dialogue around incentives to clear
   - Continued focus on default mgmt.
   - Increasingly targeted industry debates and standard setting (cyber, RRP, stress testing)

2. **Shifting risk environment**
   - Evolving nature of threats
   - Changing market behaviours
   - Increasingly collateralised markets
   - Increased availability and sharing of information

3. **Technological advancements**
   - Rapid expansion of crypto assets and Distributed Ledger Tech
   - Some early stage adoption of blockchain solutions
   - Uncertainty over future state of post-trade market infrastructure

4. **Evolutions in market structure**
   - Expected continuation of concentrated CM landscape
   - Selected pockets of consolidation / M&A following active decade

**Future areas of focus for the Clearing space**

- **“Rolling out the next wave of Risk Mgmt innovations”**
  - A Ongoing investments and innovations in Operational resilience
  - B Continued focus on credit, market & liquidity risk mgmt. (including default procedures)
  - C Continued evolution of Recovery & Resolution planning (including stress testing)

- **“Addressing barriers to incentives to clear”**
  - D Opportunities for expansion of the cleared product set
  - E Reviewing membership models and access to clearing

- **“Expanding scope and reach of CCP roles/offers”**
  - F Supporting the development of emerging capital markets
  - G Focus on delivering enhanced collateral efficiencies
  - H Delivering adjacent offerings to support stakeholder processes and ‘pain points’
Risk management remains front and centre on the agenda for CCPs

What do you think CCPs should be focusing on over the next five years?
Survey of WFE CCP WG Members

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy of risk management practices</td>
<td>80%</td>
</tr>
<tr>
<td>Mechanisms to enhance collateral efficiency</td>
<td>70%</td>
</tr>
<tr>
<td>Enhancing operational resilience</td>
<td>60%</td>
</tr>
<tr>
<td>Enhancing risk governance</td>
<td>50%</td>
</tr>
<tr>
<td>Exploring options for asset class / product expansion</td>
<td>40%</td>
</tr>
<tr>
<td>Commercial model considerations</td>
<td>30%</td>
</tr>
<tr>
<td>Regional CCP consolidation or M&amp;A</td>
<td>20%</td>
</tr>
</tbody>
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Summary perspectives

- Risk management considerations remain high on the CCP agenda
- Credit and market liquidity remains core to CCP purpose
- Supervisors and CCPs have identified a range of focus areas related to default management
  - Harmonisation of default mgmt standards & processes
  - Heightened collaboration
  - Ex-ante cross-border communication and info sharing
  - Regular testing /fire drills
- Operational risk, incl. cyber, remain in focus for continued investment, as capabilities need to evolve with nature of threats
- CCPs continue develop recovery & resolution planning and stress testing capabilities
Focus on recovery and resolution planning – increasing understanding of interconnectedness and levels of cross-border cooperation

FSB guidance on CCP resolution

I  Entry into Resolution
II  Treatment of Equity
III  Financial Resources
IV  Resolution Plan Contents
V  Crisis Management Groups
VI  Cross-border Effectiveness

Crisis Management Group setup

- Host country A
- Host country B
- Home country
- Clearing participants
- Share of transactions
- Currency of clearing
- Cross-country FMI links
- Substitutability
- Interconnectedness

Principles of cross-border cooperation

- FSB proposal for Crisis Management Group (CMG) for CCPs systemically important in more than one jurisdiction
- CMGs coordinate resolution planning, assessments and actions
- CCP-specific cooperation agreements (CoAgS) support information sharing for purposes of resolution and planning
- CMG members ensure that CCPs have adequate processes & risk capabilities
- To assess resolution effectiveness, authorities should analyze CCP cross-border contractual, operational and organisational arrangements

Source: FSB Guidance on Central Counterparty Resolution and Resolution Planning (2017), Oliver Wyman
# Illustrative rationale and practical considerations for a regional CCP model

## Rationale for regional emerging market CCP

<table>
<thead>
<tr>
<th>Cost synergies</th>
<th>Lower upfront investment costs</th>
<th>Serve smaller markets</th>
<th>More competitive pricing and product offering</th>
<th>Reduce counterparty risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost synergies in terms of risk management capabilities, staffing and IT infrastructure.</td>
<td>Lower upfront investment costs if a regional CCP can build upon existing CCPs, rather than building greenfield.</td>
<td>Serve smaller markets where establishing a separate CCP would be cost-prohibitive.</td>
<td>More competitive pricing and product offering as larger scale attracts more entrants.</td>
<td>Reduce counterparty risk because larger CCPs can attract more international investors.</td>
</tr>
</tbody>
</table>

## Practical implications of establishing a regional CCP

**HIGH-LEVEL APPROACH: BUILD OUT OF EXISTING CCP**

1. Take advantage of existing regulatory approval
2. Leverage risk infrastructure (IT, processes, etc.)
3. Enable broad participation across local markets
4. Start with achievable goals and build upwards

## Key risks / challenges to address

- Identify lead CCP infrastructure
- Establish appropriate ownership and governance
- Complexity of regional default fund and risk contagion
- Political stances over regional vs. national impacts
- Cross-country venue connectivity and IT req’s

Source: Oliver Wyman
CCPs will continue to explore where innovative and adjacent offerings could deliver improved outcomes for members / clients

### TRADE DATA SERVICES
- Creation of golden source trade record for a particular asset class or product set
- Aggregation of trade data across multiple sources
- Potential use of distributed ledger technology

### BILATERAL OTC SOLUTIONS
- Standardisation and facilitation services for uncleared bilateral trades
- Core service offerings incl. – E2E trade processing and lifecycle management
  - Standardised risk factor calculations for margining

### PROPRIETARY DATA & ANALYTICS SERVICES
- Data & analytics services based on leveraged inhouse data / information
- Provision of regulatory and R&RP insights / expertise
- Development of tools for enhanced margining and netting efficiency

### TECHNOLOGY SOLUTIONS / APPS
- Adoption of distributed ledger technologies such as blockchain to enable e.g. – Single trade record – Processing efficiency
- Platforms / applications for enhanced workflow and connectivity (client-facing)

### Example products / services
- Access to trade data record
- 3rd-party facilitation
- (Post-)trade intermediation
- Standard margin calculation
- SIMM parameterisation
- Dispute resolution
- Pricing verification
- Regulatory reporting & RRP
- Risk optimisation services
- Connectivity & middleware

Source: Oliver Wyman
Delivering the conditions for further development of Clearing

As the clearing space continues to evolve along the lines identified in this report, we suggest that an ideal outcome is an ecosystem which:

I. Promotes financial stability and integrity and ensures that the lessons from the crisis have been learnt and understood

II. Recognises that sustainable economic growth relies on financial stability

III. Ensures CCPs’ central role as neutral and independent risk managers via a faithful and full implementation of the G20 central clearing agenda

IV. Safeguards the CCP incentive structures on the basis of risk management standards

V. Results in cross-jurisdictional and regulatory dialogue and coordination mechanisms to tackle “ecosystem level” challenges and implementation of agreed standards

VI. Supports continued collaboration between CCPs and their members / end-clients to deliver innovations and solve ad-hoc and structural challenges

VII. Produces enhanced understanding of the interconnectedness of the clearing system and associated implications (incl. risk assessments, R&RP)

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