Objective & Agenda

Raise awareness on the impact of uncleared margin rules on the collateral process - with a focus on Mar 2017 changes

Agenda:
- Uncleared margin rules and the Mar 2017 impact
- Changes major banks have led to support the Sep 2016
- Preparing for Mar 2017
Un-cleared margin rules and the Mar 2017 impact (Poll1)
Un-cleared Margin Rules

• Final rules issued in US by banking regulators, CFTC
• Final draft rules issued by European regulators in Mar 2016
• Final rules expected in Japan
• SEC rule is pending but timing is uncertain
• Will require posting and collection of variation margin ("VM") and, in most cases, initial margin ("IM")
• Will require regulatory controls and auditability across previously unregulated process
Variation Margin

- VM required March 2017
- Must verify with dealers that netting is enforceable
- Decide on new or amended agreements
- Adopt standard margin process
  - Zero threshold
  - Timely delivery of VM
  - Collection and posting
  - Eligible collateral – includes certain securities but specified haircuts apply
  - Minimum transfer amount
Initial Margin – When, For What and With Whom

- Gross notional for March, April, and May ‘16 > threshold - in for IM as of Sept 1
- Count all uncleared derivatives incl. FX forwards and swaps even though they are not subject to IM margin rules
- If one party is below threshold, IM not required
- Swaps with corporate end users of small financial institutions exempted
- Investment funds are considered distinct legal entities as long as they are not supported by other funds or advisor for insolvency purposes
- Disclosure to dealers is required in advance of Sep 2016
- Disputes subject to capital penalties under Basel III
- Need to segregate with an independent custodian (no rehypothecation)

<table>
<thead>
<tr>
<th>Gross Notional</th>
<th>Phase In Schedule</th>
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<tbody>
<tr>
<td>€3T</td>
<td>Sep 2016</td>
</tr>
<tr>
<td>€2.25T</td>
<td>Sep 2017</td>
</tr>
<tr>
<td>€1.5T</td>
<td>Sep 2018</td>
</tr>
<tr>
<td>€750B</td>
<td>Sep 2019</td>
</tr>
<tr>
<td>€8B</td>
<td>Sep 2020</td>
</tr>
<tr>
<td>&lt;€8B</td>
<td>NA</td>
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<tr>
<td>Topic</td>
<td>Variation Margin</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Type of Risk</td>
<td>Current exposure</td>
</tr>
<tr>
<td>Covered Entities</td>
<td>All financial firms and systemically important non-financial entities</td>
</tr>
<tr>
<td>Product Scope</td>
<td>All products</td>
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<tr>
<td>Threshold</td>
<td>Zero</td>
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<tr>
<td>Exchange frequency</td>
<td>Daily</td>
</tr>
<tr>
<td>Minimum Transfer Amount</td>
<td>&lt;=€500,000</td>
</tr>
<tr>
<td>Eligible Collateral</td>
<td>Cash, High quality government bonds and central bank securities, High Quality corporate bonds and covered bonds, Equities included in major stock indices, Gold</td>
</tr>
<tr>
<td>Haircuts</td>
<td>Model-based Haircuts or Schedule</td>
</tr>
<tr>
<td>Segregation Model</td>
<td>No segregation</td>
</tr>
</tbody>
</table>

** Test for affiliate: consolidation under accounting standards
Operational Impacts

• All market participants
  • Self declaration
  • Re-papering of CSA agreements
  • Multiple calcs & calls per agreement (Legacy, Reg VM & for some IM)
  • Increased call frequency (zero thresholds, daily calls, mandatory collateralization) and collateral movements
  • Faster processing times (movement on call date)
  • Regulatory compliance (dispute prevention, reporting by jurisdiction, audit trail responsibility)

• For IM eligible parties, posting and segregating IM
Changes major banks have led to support the Sep 2016 (Poll 2)
Sep 2016 Changes being Implemented by In-Scope Parties

• New agreement hierarchies
• New margining process
  • Standard IM Calculation (based on SIMM Model & Schedule)
  • IM Sensitivity Reconciliation
  • Dispute Prevention
  • Margin call generation / exceptions processing
• Full automation of the VM and IM margin process
• New tri-party relationships (for segregated IM)
Collaboration has driven a redesign of the process
Collateral Hub – Front-To-Back Workflow

**Party A**
- Send Trades
- Receive Match Trades Results
- Send IM inputs (incl. sensitivities)
- Receive IM Results
- Send/Receive Calls
- Track and Resolve Differences
- Add/Maintain Reference Data
- Monitor Settlement Status

**Party B**
- Send Trades
- Receive Match Trades Results
- Send IM inputs (incl. risk sens)
- Receive IM Results
- Send/Receive Calls
- Track and Resolve Differences
- Add/Maintain Reference Data
- Monitor Settlement Status

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**TriOptima triResolv (and other trade sources)**

**AcadiaSoft Collateral Hub**
- CSA Manager
- Exposure Manager
- MarginSphere
- Disputes Manager
- On-Hub Services

**DTCC Margin Transit (and other settlement channels)**

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Common API & Single Sign On GUI
Preparing for Mar 2017 (Poll 3)
March 2017 Preparations

• Complete research / analysis of impacts

• Develop a Plan that considers:
  • Mar 2017 impact on portfolios, operations, systems, etc
  • What dependencies are on your critical path
  • Impact on counterparties
  • What industry resources can be leveraged
  • Actions, timelines, resources, project costs etc.

• Engage with the industry – leverage standards
  • Creation of new or amendment of existing CSAs
  • Enhancement of margin workflow
  • Validation of the assumptions that underlie internal decisions (e.g. outsourcing, compliance procedures)

• Execute
Available Central Capabilities to satisfy Mar 2017 Requirements

• ISDA Updated Documents
• ISDA Amend
• AcadiaSoft MarginSphere 2.2 (and Partner Program)
• AcadiaSoft Xpress
• TriOptima – AcadiaSoft Integration
• AcadiaSoft IM service
Additional Challenges being addressed in Working Groups

• How to automate the Onboarding of Regulatory Agreements
• How to calculate or verify regulatory margin using Central infrastructure
• How to best leverage standards to minimize disputes
• How to satisfy new audit/compliance requirements
• How to integrate all counterparties into an automated margin process (Xpress +)
Options to Consider for Automation (Poll 4)

Standards-based automation is required to properly support volumes and regulatory compliance. Adoption option:

- Electronic messaging (MarginSphere)
- Standard margin call formats over email (Xpress)
- Existing consistent formats over email converted to standard (Xpress with conversion)
- No change and allow your dealers to convert as necessary (Relay)
Invitation – March 2017 Working Group

• Objectives
  • Work across the industry to help resolve the major challenges March 2017 poses
  • Define and deliver central infrastructure solutions
  • Calculating or verifying margin using existing trade, sensitivity and call-related information
  • Leveraging standards to minimize disputes

• Process
  • Initiate with a meeting held every other week (start in April)
  • Break into drill-down topics as necessary
  • Communicate via newsletter and other methods
Monthly Communication of Updates

• Objectives
  • Keep broad range of parties impacted by Mar 2017 up to date in the simplest way possible

• Process
  • Monthly 30 min update call
  • Agenda includes regulatory, implementation and adoption updates
  • Information will also be published in newsletter form for distribution across firms
Next Steps

- Determine participation levels in the working group and update forums

- Determine your best 2017 Operating Model

- April 29 (tentative) Update Forum:
  - Final Rules
  - Updates/Changes in Operational Impacts
  - Direct updates from Dealers