Preparing for Regulatory Initial Margin
Agenda

> Why is TriOptima relevant?
> Regulatory Initial Margin
  > Overview of the requirements
  > AANA calculation
  > Current state
  > Navigating SIMM
> Regulatory IM project considerations & components
Disclaimer

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TRIOPTIMA – THE MARKET EXPERTS ON REGULATORY IM
triResolve & the Evolving Collateral Marketplace

**triResolve Portfolio Reconciliation**
- 2200+ Firms across the globe
- Full spectrum of derivatives market participants
- Processing 85+% of global bilateral OTC trades
- Also reconciling Cleared, Repo, TBA, ETD

**triResolve Margin**
- 140+ clients in just 2 years
- 4 awards in 2018 for Best Collateral Management System
- Supports Bilateral & Cleared OTC, Repos, TBAs
Evolution of Collateral Assets

triResolve clients who want margin automation add CSA data to triResolve and implement triResolve Margin
Evolution of Collateral Assets

Those in scope for Regulatory IM must feed sensitivities to the IM Exposure Manager
Some firms do not want to build and maintain SIMM sensitivity calculators and adopt services to do so.
Live Integrated Solution for Valuation, Risk and Collateral (VM and IM)

**tricalculate**
- Market Data
- Valuation
- IM Sensitivity
- IM Backtesting

**triresolve**
- VM Exposure
- Reconciliation
- IM Dispute Analytics/Workflow
- IM Exposure Manager
- IM Exposure
- Reconciliation

**triresolve MARGIN**
- VM/IM Call Calculation
- Margin Call Workflow
- Collateral Management
- Settlement

**SUBSCRIBER SYSTEM**
- Trade and CSA data

**KEY**
- TROIPTIMA SERVICE
- ACADIA SOFT SERVICE

**MARGIN SPHERE**

**Notes:**
- triCalculate SIMM Sensitivity service goes live in Sep 2017
- triResolve Margin goes live for Reg IM on Sep 1 2016
Key Process Challenges for Initial Margin

- How to generate SIMM™ sensitivities?
- How to exchange and agree IM margin calls?
- How to identify and resolve disputes?
INITIAL MARGIN AND ISDA’S STANDARD INITIAL MARGIN MODEL (SIMM™)
### Recap Margin Requirements

<table>
<thead>
<tr>
<th>Type of risk</th>
<th>Variation Margin</th>
<th>Initial Margin</th>
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<tbody>
<tr>
<td>Product scope</td>
<td>Current exposure</td>
<td>Potential future exposure</td>
</tr>
<tr>
<td>Threshold</td>
<td>Zero</td>
<td>€50m***</td>
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<tr>
<td>Exchange frequency</td>
<td>Daily*</td>
<td></td>
</tr>
<tr>
<td>Minimum transfer amount</td>
<td>&lt;=€500,000*</td>
<td></td>
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<tr>
<td>Segregation model</td>
<td>No segregation</td>
<td>Segregated</td>
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<tr>
<td>Calculation</td>
<td>Aggregate MtM</td>
<td>Approved model/Schedule</td>
</tr>
</tbody>
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*Excludes FX forwards/swaps and physically settled FX associated with principal payments on cross-currency swaps*
### Regulatory Initial Margin Phase-in

<table>
<thead>
<tr>
<th>Phase</th>
<th>Initial Margin</th>
<th>Timeline</th>
<th>Key Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 through Phase 2</td>
<td>3 Trillion ($ or €)</td>
<td>US Sep 1 2016</td>
<td>➢ All banks or bank related entities</td>
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<td></td>
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<td>EU Feb 3 2017</td>
<td></td>
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<tr>
<td>Phase 3 brings first buy side</td>
<td>2.25 Trillion ($ or €)</td>
<td>1 Sept 2017</td>
<td>➢ 30 to 50 firms expected 2019</td>
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<td>1.5 Trillion ($ or €)</td>
<td>1 Sept 2018</td>
<td></td>
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<tr>
<td>Estimates for 2020</td>
<td>750 Billion ($ or €)</td>
<td>1 Sept 2019</td>
<td>➢ ~1000 entities</td>
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<td></td>
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<tr>
<td></td>
<td>8 Billion ($ or €)</td>
<td>1 Sept 2020</td>
<td>➢ ISDA/SIFMA Advocacy efforts</td>
</tr>
</tbody>
</table>

> ISDA/SIFMA Advocacy efforts
Determining In-Scope Date

> Calculate Aggregate Average Notional Amount (AANA) of non-centrally cleared derivatives

> Each March, April, May if you exceed the threshold for that year you start exchanging IM on Sep 1 of that year

> If you are an entity in a consolidated group the calculation is summed across all subsidiaries of the group

> Investment funds are considered distinct legal entities as long as they are not collateralized by or otherwise guaranteed or supported by other funds or advisor for insolvency purposes

> If you will be in scope DISCLOSE THIS to counterparties

> ISDA Self-disclosure letter
Regulatory IM – Current State

> 52 Groups Live
> Converge on same model (ISDA SIMM™)
> Converge on same platform (Acadia Hub)
> ~1250 live Reg IM Agreements
> 1.86M+ Trades; 38M+ sensitivities daily
> Average Daily IM Collect amount $125B
> SIMM v Schedule

*Statistics as of Nov 14 2018*
Navigating ISDA SIMM™

- Firms must license SIMM from ISDA.
  - Free for Phase 5 – but firms still must adhere to license terms online
- Licensed firms are encouraged to interact with ISDA WGs
- Dealers may include buy-side portfolios when reporting ‘anomalies’ (i.e. Reg IM shortfalls)
  - Buy-sides can optionally participate in benchmarking/back-testing/P&L monitoring
  - Niche portfolio findings are important to calibrate SIMM/understand anomalies
- SIMM changes will be proposed following an evidence based approach
  - We have seen several changes already
  - Some substantive changes expected next year
REGULATORY IM PROJECT PLANNING CONSIDERATIONS
Overarching Considerations

- Project impact across multiple groups
- Requires:
  - Coordinated planning
  - Good communication plan
- **Now** is the time for Phase 5 to prepare in earnest

- Steep learning curve across the board
- Subject matter expertise is SCARCE
  - Hard to hire informed consultants
  - Learning curve impacts project length
Papering Reg IM CSAs

> Counterparty Documentation
  > Which counterparties will I face (new Reg IM CSAs)?
  > MTA split between IM/VM
  > When should I start negotiating docs?
    > Long lead times in dealers legal queues
    > Start conversations now!

> Where to start?
  > Will dealer agree to be calculation agent?
  > Which CPs am I most likely to move IM with?
    > triCalculate can help here!
  > Start conversations with CPs in different jurisdictions
    > Eligible collateral; Preferred custodian; Other terms
    > Will vary by CP jurisdiction!
Custodial Arrangements

> Collateral Agents/Custodian
  > What custodial model for ACA’s?
    > Tri-party – instruct RQV (total value)
    > 3rd party – instruct movement (to arrive at total value)
  > Dependent tasks with long lead times:
    > Legal doc execution
    > KYC
    > On-boarding
  > Go to the first meeting with Custodian well informed!
    > The CP discussions need to come first!
    > Chosen parameters can impact cost

> Downstream client management/education (if applicable)
Technology Considerations

> SIMM Sensitivity Calculator Buy or Build?

> Collateral Management System must:
  > Support multiple margin agreements per trade;
  > Be integrated to IM calculator (AcadiaSoft IMEM),
  > Support two-way IM Collect and Post
  > Be connected to MarginSphere
  > Support Posting Securities under Tri-party or 3rd party model

> Margin Agreement support for all fields required for 2 way Reg IM

> Onboarding to AcadiaSoft’s Initial Margin Exposure Manager

> Integration across the board

> Testing!!!
Divisional Considerations

> Front Office:
  > Trade pricing impact (MVA)
  > IM Cost allocation
  > Pre-trade Reg IM impact
  > IM Optimization
  > Hedging impacts (due to trades in different risk silos)
  > Liquidity & funding impacts?
  > SIMM or Schedule?

> Risk:
  > Do I need or want back-testing/benchmarking/P&L monitoring?
    > To determine if model coverage is adequate
  > What control processes do I need around SIMM?
Project Timeline Impacts

> If you intend to build out the SIMM Model plan on 2 to 2.5 years
> If you will use a service provider plan on 1 to 2 years
> Timeline will vary based on
  > How many agreements are in scope
    > How many dealers
    > How many custodians
  > Reiterate: This step takes the most time in project plan
> How much outreach is required to prep downstream clients?
> Integration touch point complexity
> Current Risk & Modelling capabilities
Simplifying The Complicated

One file in, one file out
Creating consistency and transparency

Ready today
Solution is live and offers rapid onboarding

Unrivalled automation
Freeing up your resources to focus on the risk

Web-based
No implementation required, access to expert client support teams provided at no cost

Cost and resource efficient
Pay as you go pricing model, only one contract required for TriOptima services

One-stop solution
No need for separate processes, benefit from triCalculate, triResolve and triResolve Margin
THANK YOU
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