

# Uncleared Margin Rules transition from Multi-Phase Implementation to a focus on Optimal Margin Management (“OMM”)

By Chris Walsh, CEO Acadia

## Executive Summary:

Having entered the sixth phase of UMR, the OTC derivatives industry is now mainstreaming UMR compliance and starting to move towards optimizing performance under the broader regulatory framework that UMR is now part of. To achieve optimal performance, market participants are challenged to create a more holistic approach towards risk, margin, and collateral. This drive for performance – and the holistic approach on which it depends is changing how the industry is working and is a fundamental driver of what Acadia has started to refer to as **Optimal Margin Management (“OMM”)**.

The goal of OMM is to optimize performance by minimizing (a) trading and investment constraints and (b) the cost of compliance. For most firms, it requires a holistic view of risk, at both a client and organization level, as well as more an integrated front-to-back process.

Through its experience of nearly a decade navigating UMR, Acadia is helping clients achieve OMM through a holistic margining program including distributing risk across portfolios, placing trades with an optimal partner and collateralizing exposures at minimum funding requirements. As such, Acadia is expanding its offering by implanting an Initial Margin workflow, integrated margining and OMM framework for the industry.

As the final phase of Uncleared Margin Rules (“UMR”) implementation occurred this past September, a new, unofficial seventh phase for compliant firms begins, one that is driven by a push towards optimal margin management (“OMM”). Under the new OMM:

- The new risk calculations and operational workflows initially implemented for compliance with UMR are streamlined to deliver an optimal balance sheet as well as operating efficiencies for in-scope market participants
- Further, these optimized calculations and flows are automated and therefore more accurately sustained on a go-forward basis within the market participants’ BAU (Business as Usual) environment.
- OMM is ultimately realized when quantitative risk and operations are brought together in a way that day-to-day margining decisions seamlessly balance risk and performance impacts so:



- Trades are placed with an optimal partner
- Risk is distributed optimally across portfolios
- Capital requirements are satisfied in a way that maximizes trading capacity
- Exposures are collateralized at minimum funding costs
- Workflows are performed efficiently and accurately
- Compliance is continuous and executed in a BAU manner

## Why is OMM required?

1. IM exposures are too high. Many firms have implemented the standard initial margin model (SIMM) to comply with UMR but in doing so have taken on too much IM exposure and are locking up too many assets in collateral.
  - a. We estimate that of the \$450M IM daily average being posted approximately 20% could be reduced daily with OMM.
  - b. Assuming a 2% cost of funding, this is costing firms \$22Bn until optimized.
  - c. This becomes a bigger issue as volatilities, such as those seen most recently with Gilts, drive up future IM exposures.
2. Funding costs are on the rise. In the low, zero and negative rate environments we have experienced in recent years, the cost of collateralizing these exposures has been less of a concern. This is changing quickly in today's rising interest rate environment where firms have seen funding costs rise as much as 150%.
3. Dispute levels are too high. Calculation differences between trading parties remain at levels of > 18%. This is resulting in unsustainable dispute rates, a condition that cannot persist under the new regulatory environment.
4. Technical debt is too high. For many firms, compliance has resulted in additional technical debt due to rushed, deadline-driven developments and fragmented environments and data. This fragmentation has been caused by a combination of factors including:
  - a. Separate Initial Margin (IM) and Variation Margin (VM) flows
  - b. Separate reconciliations of common information
  - c. New third-party partners
  - d. New redundant and disconnected data pools, and
  - e. Tactical interfaces with now critical systems such as risk
5. UMR is no longer a project, it's the new BAU. Many firms who viewed UMR as a one-time process leveraged on-time project team resources to conduct activities, such as annual scoping and onboarding, that now must be done on a continuous basis. Without a focus on OMM, there is a significant risk of not only becoming less optimal over time, but also of falling out of compliance.

Unlike the UMR implementation phase which was organized in six phases each with fixed September 1st deadlines, OMM is more continuous and for many firms is likely to involve a series of prioritized steps. These steps cover a wide range of requirements for operating within the new regulations.

- Risk models need to be continuously validated and, where required, back-tested
- Counterparty exposures need to be monitored vs thresholds and legal documents need to be negotiated for regulatory IM processing as necessary
- New trades need to be evaluated not just based on price but on their margin and funding impacts
- Trade portfolios need to be optimized in ways that factors in trading, margin, capital and funding constraints
- Collateral needs to be transparent, costs need to be minimized and as accessible as possible
- Audit trails need to be maintained to provide evidence of compliance

At the same time, new IM functions need to be mainstreamed across firms – across trading, risk, operations, and settlement.

If this is not done effectively, firms risk breaching thresholds (and having to stop trading with key counterparts), locking up too much capital (and thereby reducing trading capacity) or seeing funding costs rise beyond acceptable levels.

To help clients achieve OMM, Acadia has encapsulated the comprehensive capabilities developed over the past eight years of UMR planning and implementation into a set of services organized within an OMM framework. In addition, the framework is helping foster an ecosystem of partners providing integrated services with the Acadia platform.

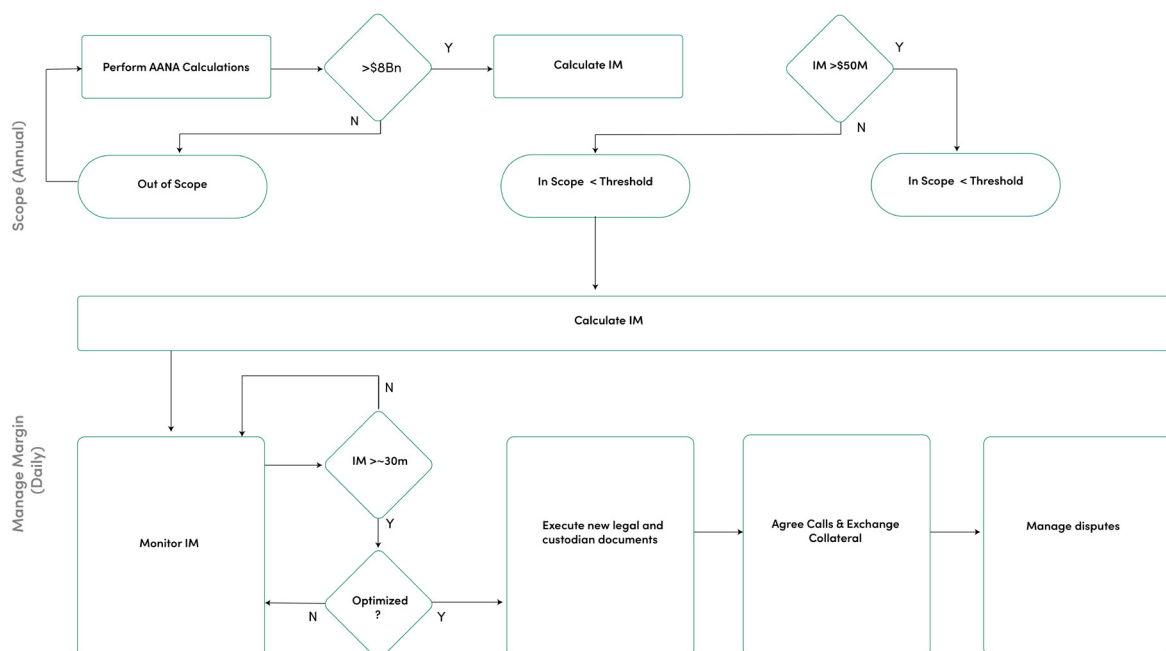
This document describes the framework and is intended to help clients understand how to best capitalize on it.

## IM Workflow

Acadia's primary approach to UMR during the compliance period has focused on creating industry standard IM workflow that can be leveraged by all market participants regardless of size, geography, or segment. This IM workflow has helped the industry to successfully execute the six phases of UMR and is now the workflow relied upon by the vast majority of in-scope clients.

IM workflow is broken into two inter-related processes.

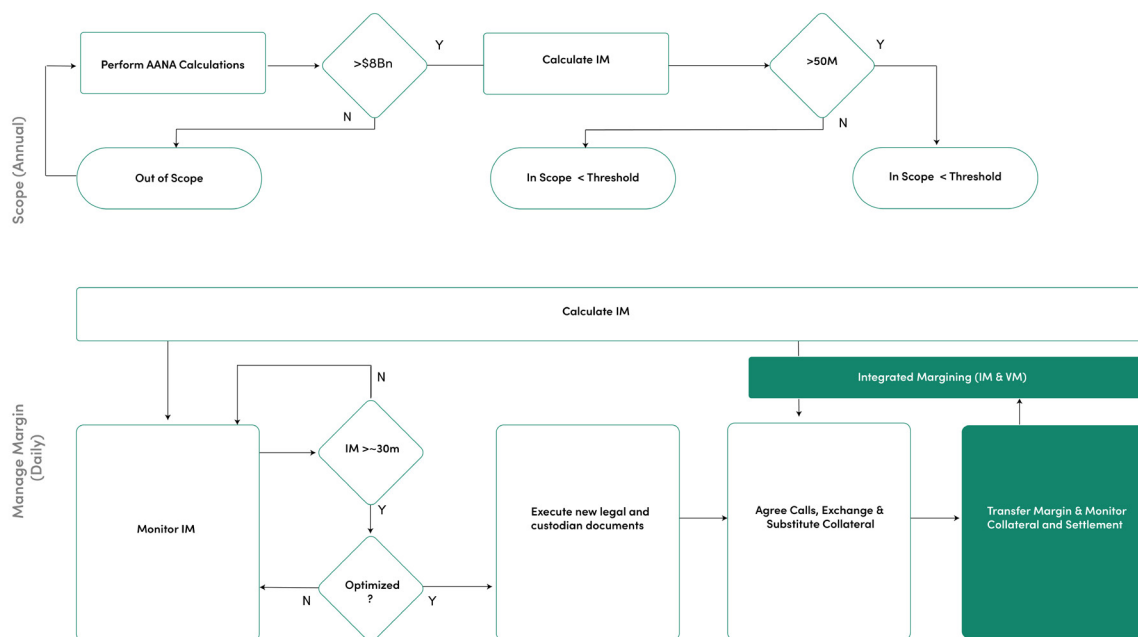
- 1. Annual UMR Scoping** - Market participants must calculate the aggregate average notional amount (AANA) for all counterparty entities that are not yet in scope for UMR. For entities with AANA of \$8Bn or more, they must calculate SIMM using either Acadia IM Risk Generator or their own calculation capabilities. If SIMM is greater than \$50M, then legal and custodian documents must be negotiated and set up for posting IM. For in-scope firms that fall below the \$50M threshold, monitoring processes must be initiated.
- 2. Daily Margin Management** - For entities where IM is being posted, this involves calculating initial margin using SIMM, reconciling risk and calculations, agreeing calls, and, for in-scope, over threshold counterparty entities exchanging collaterals and managing disputes. For in-scope, under threshold entities, IM calculations must be monitored vs thresholds and, when breached, legal and custodian agreements negotiated, and clients onboarded for IM processing.



Today this workflow is used by over 1,000 in-scope market participants, calculating, and reconciling over \$5T in aggregate daily IM exposures over the last year.

## Integrated Margining

While the UMR process has put an industry-standard IM workflow in place, for many clients, a natural next step is seamlessly integrating this IM Workflow and the broader risk and collateral management platforms. Ideally, this integration would be a 'Day 1' requirement, however many of the firms that needed to meet tight compliance schedules had no option but to bifurcate the margin process by implementing IM without ideal integration with variable margin (VM) and their existing collateral management workflows. Further burdening the achievement of OMM, they even used separate service providers, creating more inefficiencies and inaccuracies.



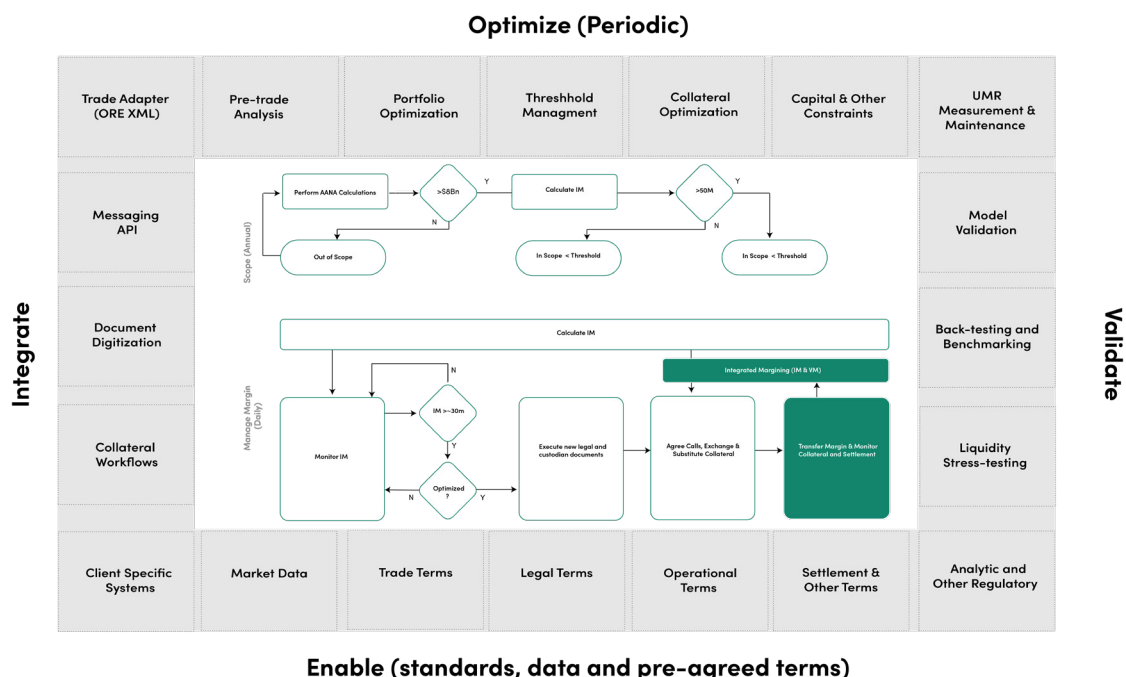
## Optimal Margin Management Framework

An integrated IM workflow has the potential to deliver substantial operating efficiencies and puts firms on a path towards OMM. However, a number of inefficiencies still remain until quantitative risk functions (and the vast and complex data they rely on) are collaboratively interacting with operational flows. Some examples of these challenges include:

- IM being higher than necessary and, as a result, consuming too much collateral, tying up too many assets and reducing the capacity being offered to clients
- IM calculations being inaccurate due to model issues and/or market data gaps
- Data holes, inaccuracies and/or limitations making it difficult to solve for a wide range of inefficiencies
- UMR project teams being terminated and the resulting responsibilities falling to operational staff without quantitative backgrounds

As the Acadia community has come together and worked together on these challenges, a whole new set of services has evolved to better optimize, validate, enable and integrate margin workflow. These services have extended margin workflow and provided a framework upon which a broader, integrated margin ecosystem is being built. As these services become more collaborative and standardized across the industry, counterparty risk will be substantially reduced across the market and margining will become more accurate and efficient from a cost and capital perspective for all market participants.

This framework is outlined below:



Market participants need to optimize as a means to minimize the amount of IM they are posting and/or reduce the cost of collateralizing the exposure. There are a number of different methods that can be leveraged to do this.

- Pre-trade analysis focuses on optimizing trades as trades are placed. In this case, the margin impact of a trade is calculated before the trade is placed in order to identify an optimal counterparty, or one that has a lower IM impact.
- Portfolio optimization focuses on periodic (e.g. weekly/bi-weekly) rebalancing of portfolios of existing trades. This rebalancing process adjusts risk across counterparties to reduce IM and capital requirements.
- Threshold management focuses on re-allocating thresholds on a periodic or intra-day basis. With threshold optimization, threshold is redistributed across counterparties to manage IM, funding and operational onboarding requirements.
- Collateral optimization focuses on selecting and moving collateral across exposures. With collateral optimization, funding costs are lowered by using the most efficient, least cost collateral.

Market participants need to validate in order to mitigate market and counterparty risks and, in many cases, satisfy regulations. There are a number of different methods that can be leveraged to do this.

- Model validation and governance is required to retain on-going permission to use risk models such as SIMM
- Back-testing and benchmarking validates if SIMM is performing as required under the regulations
- Liquidity stress testing validates that a market participant has the liquidity to cover margin calls in market stress scenarios, such as the shocks that have been recently seen in the Gilts market
- Analytics and Crowdsourcing are data-driven functions that improve the accuracy and efficiency of a market participants margin and risk processes. Peer comparisons help clients best understand the usage and accuracy of their margin as compared to peers. Crowdsourcing improves the accuracy of margining by driving up consistency in the more subjective elements of risk calculations.
- Other regulatory compliance services will be required across different segments of the market, e.g. securities-based broker dealer regime in the U.S.

Market participants need to enable UMR Management as well as its connected optimization and validation capabilities with accurate data. Under UMR, surprise data inaccuracies could require trading to be halted between counterparties. These data surprises can also result in write downs, disputes and even regulatory

issues that can result in financial and/or reputational problems. There are a number of ways firms can minimize the risk of these data surprises.

- Establish a single, accurate and reconciled view of your trades and agreements information along with the most accurate and complete market data as possible.
- Establish automated processes to validate and synchronize changes in the data between counterparties. The costliest surprises are often seen one when party has a different view of value than another.
- Make sure data is integrated into the key UMR management processes.

While UMR's implementation over nearly a decade provided the OTC derivatives community with a level of structure and guidance, going forward, firms will need greater embrace of OMM to reach peak alignment of risk functions and operational flow. Assuming all data is accurate, OMM brings about seamless workflows as validating risk is more ready to assess market and counterparty risk and satisfy any regulatory conditions. Firms and their partners which traversed UMR together are now in a better position to implement IM monitoring programs, integrating the OMM framework and distribute risk across its portfolio.

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