

Creating Value for Clients

WEB-BASED
AGILE
COLLATERAL
MANAGEMENT



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Uncleared Margin Rules

The Need for an Agile Collateral Management Platform

UMR: Where we are 1Q2020

- Firms need to be ready to exchange Initial Margin (IM) for uncleared OTC derivatives by September 2020
- Over 1,000 Firms in scope for Final Phase
- Industry Participants are looking for guidance and clarity

High Level UMR Process Flow



The starting of the above process is to start calculation of Initial Margin(IM). And for this we have two methods SIMM and Schedule Based and we have provided below comparison of these methods.

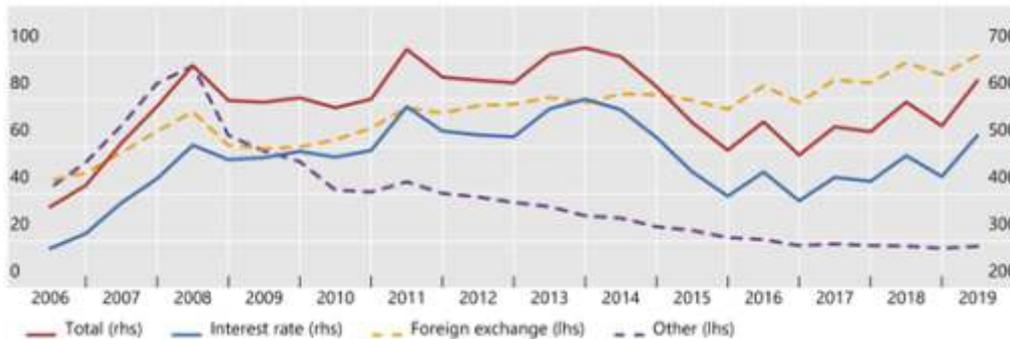
Initial margin calculation methods: SIMM™ vs. Schedule

UMR offers two alternative methods for the calculation of IM:

- SIMM™ methodology, an internal model-based approach for which International Swaps and Derivatives Association (ISDA) has created the standard
- Schedule-based grid approach, a simpler alternative, applying different percentages to notional by product type and tenor.
- Identification of netting sets to which Schedule must be applied but the benefit of offsetting risks is not captured in Schedule Methodology.
- Adoption of Schedule calculation by a client means a significantly higher funding/capital cost which will be incurred by both sides of the trade and will lead to negative impact to the trading relationship due to higher cost per trade.
- We believe that most of Firms will adopt SIMM Methodology for IM calculations

Growth of the OTC Derivatives Market

- Notional amounts of OTC derivatives rose to \$640 trillion at 2Q2019, up from \$544 trillion at 4Q2018 and the highest level since 2014. It marks a continuation of the trend increase evident since 4Q2016.
- The gross market value of OTC derivatives, summing positive and negative values, also rose, from \$9.7 trillion to \$12.1 trillion, led by increases in Euro interest rate derivative contracts.
- The latest semiannual data benefit from the addition of more comprehensive information for smaller dealers collected as part of the BIS Triennial Survey. Dealers in emerging market economies (EMEs) accounted for 9% of the outstanding notional amounts of foreign exchange and commodity derivatives globally at end-June 2019, up from 7% at end-June 2016.



Graph 1: Outstanding notional amounts of OTC derivatives, USD trillions (interactive graph).

Source: BIS OTC derivatives statistics (Table D5.1).

Soaring Notional Amounts of OTC Derivatives has Driven:

- Increased Counterparty Default Risk
- Heightened Requirement for robust Collateral Management Platform
- Firms will NOT trade with counterparties without collateral agreements
- Correct Calculations of Initial Margins and Reconciliations to resolve any Disputes



Standard OTC Derivative Collateral Process Flow

- The two parties negotiate and execute a Credit Support Annex (CSA), which contains the terms and conditions under which collateralization will take place, and which is an annex to the ISDA (International Swaps and Derivatives Association) Master Agreement.
- The trades subject to the collateral agreement are regularly marked-to-market (MTM). Their net valuation is then agreed.
- The party with the negative MTM on the trade portfolio delivers collateral to the party with the positive MTM.
- As prices move and new deals are added the valuation of the trade portfolio will change.
- Depending on what is agreed, the valuation is repeated at frequent intervals - typically daily.
- The collateral position is then adjusted to reflect the new valuation. The process continues unless one of the parties defaults.

Lasting Regulatory Impact

- More and more firms are collateralizing their trades due to the new regulatory landscape in which they now operate. It is not a case of wanting to collateralize their trades; they are now mandated to collateralize their trades.
- These regulatory constraints have seen a rise in central clearing for over-the-counter (OTC) derivatives, use of trade depositories, tightening eligibility criteria, Basel III capital charges and a change of internal counterparty credit risk management practices; firms simply have no choice but to now be a part of the collateral management world.
- The overwhelming drive for the use of collateral is to provide security against the possibility of payment default by the opposing party in a trade. An ISDA 2009 report states, "The most important reasons for using collateral are reduction of credit risk and freeing up of credit lines with counterparties". It is now customary that firms do not trade with counterparties without collateral agreements.

Although the catalog of financial entities needing to effectively manage their collateral is vast, listed below are examples of firms for which Donmil's Agile Collateral Management Solution is an excellent choice:

- Asset Managers
- Hedge Funds
- Pension Funds
- Insurers
- Corporate
- Buy-side Banks
- Sell-side institutions

Within these various Firms, listed below are the specific Businesses which require the Donmil's Agile Collateral Management Solution:

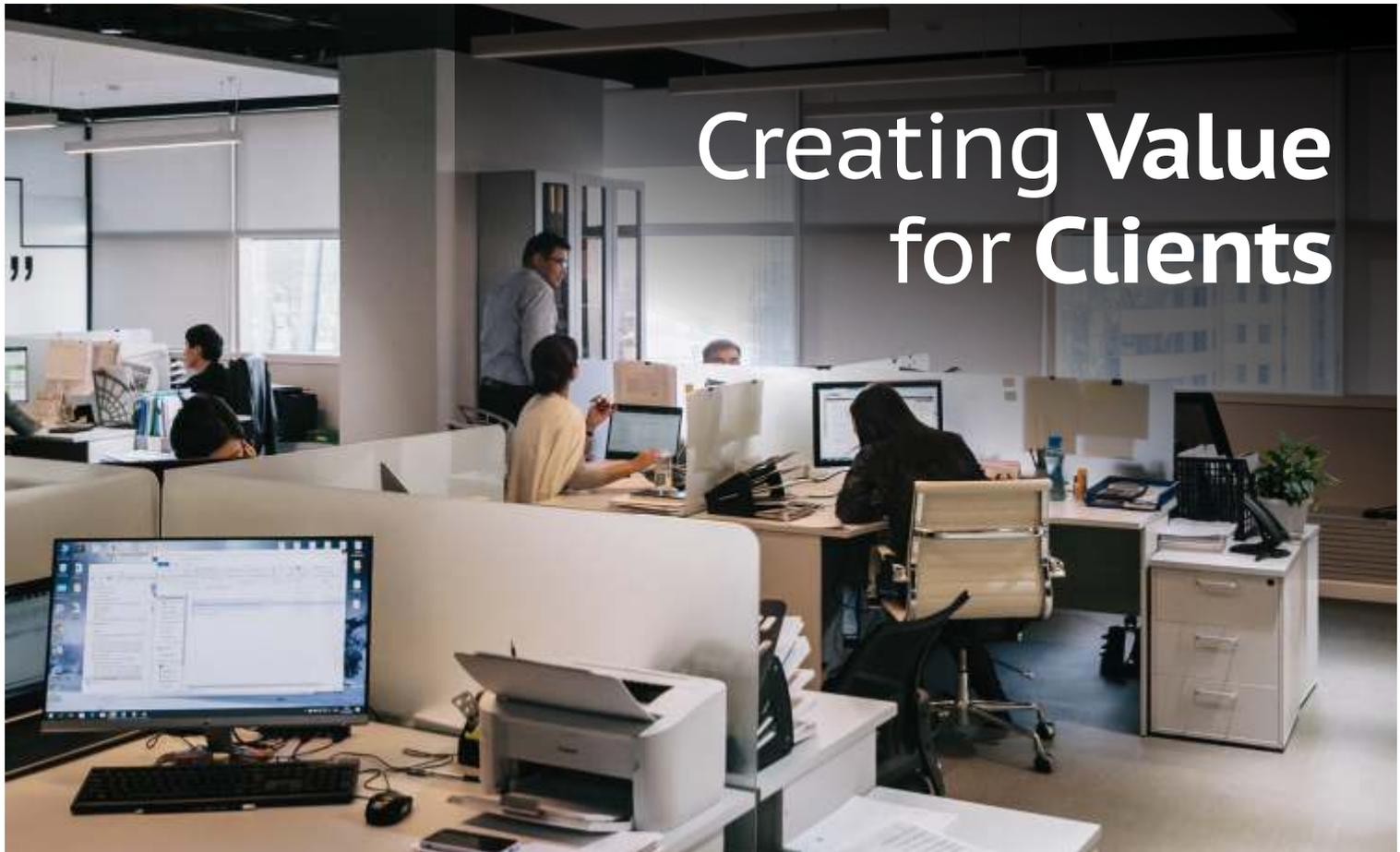
- Repo Markets
- TBA Trading
- Exchange Traded Futures & Options
- OTC Derivatives Both cleared & bilateral
- Securities Lending
- FX margining



Firms & Businesses Which Need Our Collateral Management Platform



Your Web-Based Agile Collateral Management Platform

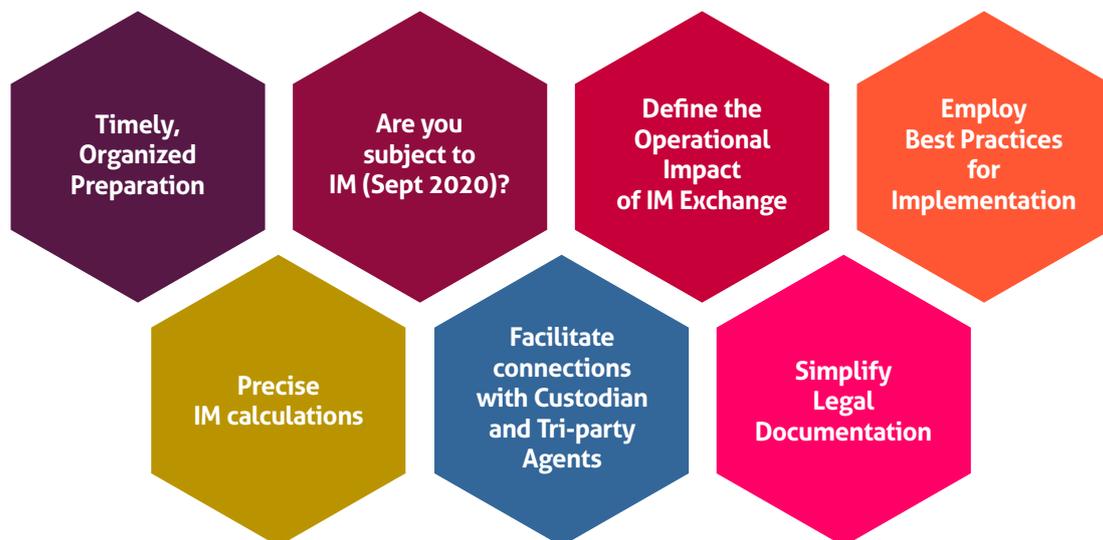


Creating Value for Clients



Advantages of Donmil's Web Based Agile Collateral Management

A Strategic Partnership with Donmil QuanTech will enable our Clients to tackle these crucial tasks:



As per Basel III guidelines even smaller forms must exchange IM from Sept 2020 and this has opened a large amount of work to be done by those firms who are "in-scope" for Uncleared Margin Regulations.



Advantages of Donmil's Web Based Agile Collateral Management

Timely, Organized Preparation

- The looming deadlines for IM has caused highly sophisticated Firms to engage Donmil as a professional Partner, organize and prepare for all the specific regulatory requirements.
- These include the IM calculator, Specific Model results, the calculations to their regulators to become approved to exchange IM.



Donmil QuanTech Provides below as help

- IM Calculation SIMM Library and will implement it quickly at Client's end
- Connection with Custodian or Triparty agents as suggested by Client
- Aligning internal processes and systems to meet new IM Exchange requirements

Advantages of Donmil's Web Based Agile Collateral Management

Are you subject to IM (Sept 2020)?

Firms must use Aggregate Average Notional Amount (AANA) method applicable to your firm or fund during the months of March, April and May of the prior year. The method varies by jurisdiction but it will determine if you are in scope.

The regulations take effect in stages between 2016 and 2020, and the threshold for inclusion to exchange IM has been reduced annually on September 1st.

September 2018:

Entities with an average notional of €1.5 trillion, or the equivalent under your own regulatory jurisdiction, must begin IM

September 2019:

The threshold is halved to €0.75 trillion / €750 billion

September 2020:

The threshold reaches its final level of €8 billion, or in your local currency equivalent

Firms in scope for September 2020 need to execute disclosure to Counterparties (ISDA provides a template of "Self-Disclosure Letter"). In addition, these Counterparties also need to comply with these regulations- unless they are exempted.

Donmil QuanTech has experience preparing these Self Disclosure Letters and we can also help you determine whether you are in-scope for IM exchange.

Define the Operational Impact of IM Exchange

Since IM is likely only covered by securities- cash isn't easily segregated as an asset- these pledged securities that Firms have posted to cover IM cannot be rehypothecated, meaning they remain static in Custody account.

Donmil QuanTech will help Clients handle these important processes related to IM Exchange and VM payment or receipt.

Define the Operational Impact of IM Exchange

Margin Calculations:

IM is a two-way process, where each party covers for their IM exposure and posts eligible securities.

Donmil QuanTech **simplifies** both the IM and VM calculations; IM by deploying SIMM Library and VM by utilizing Trade related data.

Collateral Optimization:

For VM, firms can post Cash and certain Eligible Securities but for IM typically only securities are posted. Eligible securities collateral includes Government Bonds, Corporate Bonds, Equities, and others.

Donmil QuanTech allows clients to harness efficient, seamless Collateral Optimization- whereby assets with intrinsic value are reserved, and margin is maximized through the selection of inexpensive securities.

Substitutions:

Our platform not only selects the optimal securities for your initial margin requirements but, it also, on an ongoing basis, suggests substitutions when more optimal collateral is available.

TriParty Processes:

Since the model for pledging IM is Tri-Party in nature (two counterparties and a nominated custodian) and the various Custodians offer competing Tri-Party Models, Donmil QuanTech has experience with operational process implementation and seamlessly aligning our system.

Recall / Return:

Our Collateral Management platform will help perform Recall and Return of Collateralized Securities.

Settlement:

Firms require enhanced efficiency with posting and receiving securities to cover IM exposure. For each Collateral Management Team this means matching instructions and tracking the settlement of each security.

Firms choose multiple Custodians from which they will pledge their securities (IM). Each Custodian relationship requires separate documentation, and instructions. Donmil



Getting ready for Operational Impact of IM Exchange

Advantages of Donmil's Web Based Agile Collateral Management

QuanTech has found that the DTCC Margin Transit Utility (MTU) can help move securities across custodians via one central service.

Disputes:

As with IM, as disputes become more complex to resolve, firms will require staff skilled at reconciling the inputs to the IM Calculator. Here Donmil QuanTech has experience assisting clients as they match the CRIF file- which is input to SIMM Library for IM calculation. Additionally, Donmil QuanTech has experience reconciling portfolios with your counterparties.

Daily Timing:

Since IM must be calculated, called and settled within same business day on T+1, firms need a timely IM Calculation to perform this crucial set of daily functions. Donmil QuanTech not only maintains a robust SIMM Library but also can provide details intermediate calculations.

Margin Calls and Message Trails:

Many firms now use MarginSphere - the messaging solution from AcadiaSoft- to send and receive margin calls. MarginSphere offers fully automated margin call messaging, across asset classes. Among the many benefits of such an automated messaging system is the reduction in operational risk through tracking the issue, the receipt of call, and more efficient, integrated workflow. If a Dispute arises, this automated audit trail is supremely important, since mail and phone are not evidence trails of a margin call.



Employ Best Practices for Implementation

Spreadsheet: ✘

Many firms facing increased regulatory requirements are struggling with **spreadsheets** to track VM and margin calculations need to decide on complexity of solutions and time available. Unfortunately, a spreadsheet cannot produce an audited workflow environment, it is not multi-user, and a spreadsheet does not have permit crucial integration with external systems.

Locally Installed Solution: ✘

Usually these kind of Solutions have lengthy selection process and cost associated with these solutions are higher compared to other options available. And these solutions have long implementation periods so starting from this point of time, it will not be very suitable option to choose from.

Building in-house: ✘

Other firms have contemplated creating a collateral management platform **in-house**. Given the rapidly approaching deadline (Sept 2020), the viability of this choice is quickly diminishing.

Outsourcing the Collateral Management Process: ✘

This options gives one new relationship with vendor and even if this vendor has capability to calculate IM, you need to produce test results and get it approved from regulators before September deadline. And again there is also a costly option and firms lose their control over the process and it needs careful oversight.

Cloud Source the Collateral Management Process: ✔

Our Agile, Intelligent Web-based platform has all tools to handle VM and IM calculations, complete margin processing, and a highly controlled, efficient implementation measured in weeks, not months- safely before the Sept 2020 Deadline.



Advantages of
Donmil's Web Based
Agile Collateral
Management

Best Approach for Implementation



Cloud Source the Collateral Management Process

Among the many benefits of Donmil QuanTech Platform are:

- Retain the Control of your team and workflow
- No software installations or maintenance
- IM Calculations by SIMM Lib, Messaging, Workflow and Settlement Tools
- Detailed Implementation Study and Nimble Deployment
- No Third-Party Service Providers
- Substantially Lower Cost compared to on-premise software installation

Donmil QuanTech provides Clients tools which optimize efficiency, minimize risk, and maximize revenue:

- SIMM Library to calculate IM
- Trade Valuation source flexibility
- Asset Inventory tracking and Optimization using data from your system, SWIFT Messages exchange.

Fully Integrated with:

- MarginSphere from AcadiaSoft
- Major Custodians- JPMorgan, BNY Mellon, Euroclear, ClearStream, etc
- DTCC MTU for Custodian Instructions
- Various Reconciliations Services



Advantages of Donmil's Web Based Agile Collateral Management

Precise IM calculations

The Implementation IM model takes time and full testing to achieve regulatory approval.

Global firms can use either SIMM or Schedule Method to calculate IM. Although the Schedule is relatively easy, it produces relatively higher IM value and it bears no relationship to the actual risk in the firm's portfolio.

ISDA has developed Standard Initial Margin Mode (SIMM), which is more correlated to portfolio risk, and has therefore become a standard model to use for IM calculation. By using the SIMM model, Firms can calculate IM for their Counterparties, and employ it for Dispute resolution.

Dispute Resolutions and SIMM

As noted briefly above, a key benefit of SIMM adoption is the common approach to calculate IM which assists in resolving Disputes by replicating counterparty IM calculations.

Differences in IM may arise from

- Timing Differences on Inputs
- Discrepancies in Trade Population
- Inconsistencies in Risk Factors and Sensitivities used
- The Risk Weightings
- Understanding Bilateral CSA terms
- Accuracy of Crowd-sourced data from ICE (all parties should use same data each day)

Reconciling Data Inputs to SIMM will require Sensitivities Calculations, to be handled by skilled staff.

We provide a both SIMM Library to calculate SIMM, as well as intermediate calculations to arrive at Final IM Amount.

Risk factors can be integrated from Inter Continental Exchange (ICE). The 33 Firms which are currently contributing to this key utility are producing Equity and Credit complex risk factors, which must be consistent to avoid IM disputes.

More information can be found at

<https://www.theice.com/iba/isda-simm/crowdsourcing-facility>



Advantages of Donmil's Web Based Agile Collateral Management

Facilitate Connections with Custodians and Tri-Party Agents

Since the current U.S. and Europe regulations require IM to be collected and held at segregated accounts held at a third-party Custodian, Firms should start the process of appointing a Custodian- which involves:

- ISDA Account Control Agreement
- Implementing KYC checks by Custodians on your Firm
- Opening New segregated Accounts with Custodian
- Completing and Testing Technical and Operational Integration tasks
- Precise IM calculations

We have experience making connections across major Custodians via API (or alternative methods) and simplifying operational tasks while we implement for Our platform for you.

Simplify Legal Documentation

The standard IM agreement set will include four to six separate documents, in addition to collateral schedules and SIMM agreements. Subject to negotiation- and requiring escalation and approval from various departments- each document must be cohesive and consistent for regulatory compliance.

Trading counterparties who do not share the same Custodian need to execute documents for each platform, effectively doubling the legal documentation work required.

Donmil QuanTech has experience with automating these Agreements, and other terms- ALL to expedite the implementation for you.

Thank You

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COLLATERAL MANAGEMENT
WITH INTELLIGENCE

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