



Supporting ISDA SIMM™: Key considerations you need to know

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When numbers matter

Are you going to be impacted by the future implementation phases of uncleared margin regulations? If so, there are multiple issues and challenges of which you need to be aware. One of the most significant and transformational changes your firm will experience will be related to the work that will be required around implementing the margining of non-cleared derivatives. Herein lies interest in ISDA's standard initial margin model (ISDA SIMM™), a common methodology developed to help market participants calculate initial margin (IM) on non-cleared derivatives.

ISDA (International Swaps and Derivatives Association), which introduced ISDA SIMM™ in September 2016, has evangelized how the use of a single, standardized model for margin calculations could help bring a range of benefits to OTC derivatives market participants, such as enabling greater operational simplicity, permitting a timelier and more transparent dispute resolution between counterparties, and allowing consistent regulatory governance and oversight.

Initial margin requirements have already been implemented into groups of market participants over three phases that took place from September 2016 to September 2018. The final two phases will occur in September 2019 and September 2020. These two phases are expected to have a significant impact on the OTC market, as a large number of counterparties and trading relationships will come into the scope of the requirements. In [recent insights](#) published by international law firm Skadden, according to data gathered by ISDA, swap dealers have estimated that at least 1,000 additional counterparties and 9,000 new trading relationships will be included in the final phase of the IM requirements.

These last groups of market participants that will come into play should be aware that preparations for meeting the mandatory posting of IM are neither easy or simple—they take time and involve significant effort to ensure that systems, processes and documentation are in place, and thus require extensive operational and technological overhauls. In this paper, I am going to briefly highlight some important considerations to help enable a smooth transition, but first let's gain a broader understanding of initial margin and ISDA SIMM™.

The successful implementation of initial margin requirements will require extensive operational and technological overhauls.

Understanding IM and ISDA SIMM™

Initial margin is represented by the amount of collateral required to open a position with a broker or an exchange or a bank and is meant as a risk mitigation tool to protect a firm in the event its counterparty defaults. As mentioned, margin requirements for non-centrally cleared derivatives first came into force in September 2016 and ISDA SIMM™ is the approach that was introduced by the industry to enable compliance with the regulations tied to margin requirements. Following the introduction of mandatory clearing for standardized derivatives, regulators created measures to deal with non-centrally cleared and non-standardized derivatives. This included the requirement for counterparties to establish bilateral margin arrangements and improve operational risk procedures to help reduce counterparty risk as well as overall systemic risk for the marketplace.

The 5-phase implementation of margining rules started with the largest market participants, based on the average notional amount of non-centrally cleared derivatives held by an institution, and will end with smaller market participants. The first phase (September 2016) included firms with notional amounts above USD 3 trillion and by the third phase in September 2018, the amount was USD 1.5 trillion. Phase 4, occurring in September 2019, will impact institutions with above

USD 750 billion in non-centrally cleared derivatives and will fall to USD 8 billion in September 2020 (phase 5). This means that by 2020, many more financial institutions, including both the sell side and buy side, will be affected by this regulation.

Because of the first three phases of implementation, ISDA SIMM™ has gained both regulatory and market acceptance in jurisdictions around the world and is expected to gain further traction as the larger numbers of firms come in-scope over the next two years.

For the firms represented in phases 4 and 5, ISDA SIMM™ implementation will mean new ground and they will need to ensure that their operations and technology are able to support ISDA SIMM™. If your institution is part of one of these phases, adopting the ISDA SIMM™ methodologies in advance of going live will be very critical to successfully implementing a margining program. For example, it will be important to understand how ISDA SIMM™ operates, how to incorporate it into your organization, as well as define the right processes for it *well before* the go live dates.

Implementing Initial Margin Requirements: A Large Scale Effort for the Final Phases

ISDA and SIFMA (Securities Industry and Financial Markets Association) published a paper in July 2018 titled "[Initial Margin for Non-Centrally Cleared Derivatives: Issues for 2019 and 2020](#)" which addresses the significant challenges institutions will encounter as a result of implementing margin requirements during phases 4 and 5 (which, according to SIFMA, will be more intense than those experienced in the prior phases), and emphasizes how the effort will put a fast and huge demand on internal and external resources. Institutions will need to:

- Negotiate and sign new legal documents, including trading and service agreements.
- Develop and test new processes.
 - For example, as part of the validation process, firms need to ensure accuracy and effectiveness of their data and computation capabilities.
- Review collateral processes to ensure margins get settled on time.
- Conduct model implementation, attain model approval by regulators, and monitor model performance over time.
 - The industry has thus far widely adopted ISDA SIMM™ to more easily attain model approval.

From the list above, it becomes clear that multiple departments within an institution will need to be proactive and on board with their procedures for phasing in IM regulations, including the front office, collateral management operations, and risk and legal departments. That leads to the bottom line of all this, which is that the preparation burdens for market participants could be considerable.

One very crucial consideration is to decide whether to attack your implementation project using only in-house resources and technologies or seeking help from third-party vendors. From a technology perspective, there are certain capabilities that will be necessary to support margin requirements using ISDA SIMM™.

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Functional Requirements for an ISDA SIMM™ Margining Solution

A full-featured margin solution for institutions who trade non-cleared derivatives would include comprehensive ISDA SIMM™ functionalities to easily produce margin files and calculations and to facilitate fast and smooth margin reconciliations with counterparties. Advanced analytical capabilities would also be desirable in terms of delivering powerful insights that could be used to produce profitable decision making. (See Figure A).

Impact on Decision Making

The key thing to know is that, by and large, the purpose of the IM requirements is to reduce overall systemic risk via incorporating high margins on OTC trades so (1) trades are less risky if firms insist on conducting them and (2) to "incentivize" firms to consider cleared trades instead of uncleared trades. So, this means traders are definitely going to be looking at margin costs when determining what to trade and whether to clear trades or not. A trader, for example, may make the choice to trade cleared instead of bilaterally, with the potential for lower margins and lower capital costs. A trader could also decide to stop trading certain types of products entirely because of their initial margin costs. Another possibility is that traders may construct trades differently, such as, for example, combining several vanilla products to synthetically reproduce an exotic product should the overall margin costs turn out be lower.

Don't Wait Until the Last Minute

While firms that will be part of phases 4 and 5 of the margin rules are not at zero hour yet, the time has come to start taking action. It is important to get involved early so there is sufficient time to fully understand how to build ISDA SIMM™ functionalities and operate them. When phases 4 and 5 do come into play, in-scope market participants will need to prove to regulators that their institutions are in compliance with the initial margin requirements. If an institution chooses not to use ISDA SIMM™ for this purpose, then it will have to get regulatory approval for its own model, which could be highly unlikely.

To learn about Numerix's Oneview for Margin, access this [fact sheet](#).

FIGURE A: GETTING READY FOR IM WITH ISDA SIMM™

Basic Functionality

- Generating sensitivities and aggregate them into buckets as prescribed by ISDA SIMM™
- Generating and exporting CRIF (Common Risk Interchange Format) files for counterparty reconciliations and regulator engagement
- Producing margin calculations for analysis, plus exporting to other systems, counterparties, and regulators
- Supporting all four product classes as defined by ISDA SIMM™
- Importing external CRIF files from other systems to aggregate and run all margin calculations
- Supporting ISDA SIMM™-specific cross-currency swap treatment
- Automatic updating of ISDA SIMM™ methodology and parameters as ISDA SIMM™ re-calibrates them each year
- Configurability of ISDA SIMM™ parameters and sensitivities for added flexibility

Advanced Functionality

- Ability to identify key risk drivers that influence margin values, so firms can take action to mitigate the risks and lower margin costs
- Ability to conduct fast and easy margin reconciliations with counterparties by comparing CRIF files and identifying key mismatches and drivers of differences
- Ability to back-allocate margin to individual trades on an incremental and marginal basis so firms can see the "margin cost" of different trades, strategies, desks, or portfolios
- Delivery of customizable dashboards for monitoring key margin metrics
- Providing an in-memory analysis cube to enable dynamic multi-dimensional views of margin (i.e., slice and dice) to assess margin by trade, margin set, netting set, legal entity, counterparty or other dimensions
- Incorporation of initial margin numbers into real-time pre-deal checks so traders can understand the margin impact of new trades before execution
- Pre-trade analytics for identifying the counterparty with the lowest incremental margin for a new trade to optimize counterparty choice and lower margin costs

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Mr. Sadak is Senior Vice President of Product Management for Numerix and oversees risk analytics, including stress testing, VaR, and market risk. Prior to Numerix, he held several positions at MetLife, where he implemented numerous derivatives overlay strategies for their General Account portfolio and built out pricing and risk analytics for active derivatives hedging of their variable annuity program. Mr. Sadak earned a dual degree in Mathematics and Finance from Rutgers University and is a CFA charter holder.

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