

## A comparative analysis of Initial Margin models

The Uncleared Margin Rules allow for the use of either standardized schedules published in the relevant uncleared margin rules (“grid methodology” or “Schedule”) or approved internal models to calculate daily posting of Initial Margin.

ISDA SIMM™ is the only internal model currently approved and in use.

This analysis seeks to demonstrate some advantages and disadvantages of using one of the two available models in calculating your Initial Margin.

To show the quantitative impact of using ISDA SIMM™ versus Schedule in calculation of Initial Margin, we created a sample portfolio of 12 trades\* - See table below:

Trade Type	Maturity	Notional
COMMODITY	Under 1 Year	\$4.2M
CREDIT	Under 2 Years	\$2M
CREDIT	2 to 5 Years	\$2M
CREDIT	Over 5 Years	\$9M
Cross Currency SWAP	2 to 5 Years	\$13.4M
Cross Currency SWAP	Over 5 Years	\$61M
EQUITY	1 Year	\$20M
EQUITY	1 Year	\$16M
FX	Under 1 Year	\$40M
FX	Under 2 Years	\$1.2B
FX	Under 2 Years	\$900M
RATES	Under 2 Years	\$444M

The portfolio has 12 trades between Party A and Party B.

Based on that sample portfolio, a comparison of the calculation of the ISDA SIMM™ methodology versus Schedule comparison for the calculation of Initial Margin is:

	Schedule	SIMM
<b>Total</b>	<b>(\$95,443,568.09)</b>	<b>(\$14,414,323.67)</b>

Note: the analysis above is provided to give a generic view of the differences in the two models. A client’s individual and actual portfolio may yield a different magnitude of difference due to client specific trade type/maturity concentration. AcadiaSoft is of the opinion that this sample portfolio is a fair indication of Initial Margin (IM) difference.

## Benefits of ISDA SIMM™ over Schedule

- ISDA SIMM™ is a simplified VaR risk-based model that allows offsetting risks. Schedule is a grid-based approach applying different percentages to notional by product type and tenor.
- While Schedule appears simpler on a conceptual basis, it can be operationally challenging to implement:

- Identification of netting sets to which Schedule must be applied but the benefit of offsetting risks is not captured (in the sample portfolio above Schedule is approximately 7 times the ISDA SIMM™ value)
- Accurate mapping of trade to product type in situations where competing product rules may apply
- Unclear notional for some trade types
- Tenor classification can also present practical difficulties where the trades may be callable or extendible
- 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.
- Inputs for ISDA SIMM™ are calibrated annually by the industry to account for recent market volatility along with 1 year of stress period. Schedule has remained constant.

## Conclusions

- Regulations do not provide clear guidance for Schedule methodology which leads to:
  - Differences in interpretation
  - Increased margin disputes
  - Significant effect on liquidity management
- ISDA SIMM™'s transparency allows for timely identification of calculation discrepancies through an established support environment.
- Firms opting for the Schedule calculation in the near term will incur additional significant repapering costs if eventually switching to ISDA SIMM™ as the IM CSA would need to be amended.

AcadiaSoft provides a bespoke service to assist in projecting your initial margin utilizing your portfolio data. If you would like to find out more about this service contact [info@acadiasoft.com](mailto:info@acadiasoft.com)

\*SIMM™ is a registered trademark of ISDA

AcadiaSoft, Inc. is a financial industry collaborative that is uniquely focused on delivering margin automation and standards for counterparties engaged in collateral management. Owned and backed by the investment of 17 major industry participants and infrastructures, the AcadiaSoft community has grown to over 650 counterparties exchanging approximately \$400B of collateral on daily basis.

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