

ISDA SIMM^{™,1} GOVERNANCE FRAMEWORK
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I. OVERVIEW

The ISDA SIMM Governance Framework (the “Framework”) sets out the principles under which the ISDA Standard Initial Margin Model (“SIMM”) will operate and the process through which it will be reviewed and amended on a consistent and transparent basis. Specifically, the Framework provides for:

- Global SIMM governance and development in coordination with SIMM users and regulators; and
- Firm level portfolio monitoring including the adequacy of SIMM coverage at the counterparty level by each firm, the escalation of issues to ISDA, and remediation of associated risk coverage shortfalls of SIMM.

II. GLOBAL ISDA SIMM GOVERNANCE

II.A. ISDA SIMM Governance Committee and industry-wide SIMM governance

To coordinate industry-wide development and governance of SIMM, ISDA has established the ISDA SIMM Governance Committee comprised of the ISDA SIMM Governance Forum (the “Forum”) and the SIMM Governance Executive Committee (the “Executive Committee”).

1. The Forum will make reasoned, consensus-based recommendations to the Executive Committee regarding: modifications to the ISDA SIMM, modifications to definitions and standards, calibrations other than the annual re-calibration, answers to frequently asked questions (“FAQs”), and responses to regulatory requests. The Forum may convene subcommittees of technical experts to work on specific issues that may arise. These subcommittees will operate by consensus and present their findings and recommendations to the Forum.
2. The Executive Committee, which reports to the ISDA Board, will review recommendations from the Forum and approve or reject these recommendations. Forum recommendations not approved by the Executive Committee will be referred to the ISDA Risk & Capital Board Committee. In addition, the Executive Committee will:
 - (a) Consider and approve model and methodology modifications, risk factor additions, definitions and mapping standards;
 - (b) Advise ISDA on responses to regulators’ requests;
 - (c) Approve the publication or revision of FAQs regarding the SIMM and
 - (d) Approve the recalibration and analysis of methodology and model performance of SIMM on at least an annual basis.

Hereafter, the Forum and the Executive Committee together will be referred to as the “Committee”.

II.B. Annual re-calibration and review of the SIMM

On an annual basis, the Committee will conduct a full re-calibration of the SIMM parameters. The Committee will also conduct an annual review of the SIMM methodology to ascertain whether changes to the SIMM are warranted.

1. SIMM re-calibration

The Committee will coordinate and perform recalibrations of the SIMM parameters. As required by regulations, annual recalibrations will use data that incorporates a period of financial stress to derive parameters that meet the 99% confidence of 10-day cover standard.

2. SIMM methodology review

The Committee will conduct an annual review of the SIMM to consider recommendations from SIMM users to address:

- (a) Reported shortfall and reconciliation issues ISDA has received during the year;
- (b) Changes to the methodology, in light of:
 - i. Developments in the financial markets;
 - ii. Advances in modeling technology;
 - iii. Responses to changing market conditions.
- (c) Changes to risk factor definitions (e.g., sensitivities and mappings);
- (d) Expansion of scope to include additional risk factors; and
- (e) Model simplification and/or changes to bucket granularity.

The Committee will draw on input from the industry including issues raised in quarterly data submissions to ISDA described in II.C. below.

3. Independent validation

The Committee will engage an independent third party to validate the annual re-calibration of the SIMM parameters and the calibration of any material changes to the methodology, as appropriate.

II.C. Quarterly escalation of shortfalls and reconciliation issues to ISDA

When SIMM users experience material margin shortfalls from benchmarking or back-testing, or from persistent reconciliation difficulties, with respect to a specific counterparty portfolio, or more generally, these are to be reported each quarter in a consistent manner to ISDA. Issue escalation helps ISDA improve the SIMM: users should only escalate genuine issues which have been cross-checked as valid, rather than issues deriving from the users' own systems, or use of systems.

1. Shortfalls

The ongoing adequacy of the performance of the SIMM in meeting regulatory requirements requires SIMM users to monitor SIMM shortfalls against benchmarks or back-testing. Users of the SIMM are expected to provide to ISDA data on SIMM shortfalls (defined in III.B.1) as directed by ISDA, subject to applicable reporting thresholds. This data will be used to monitor and assess the performance of the SIMM across the industry.

Reports must include:

- (a) Bilateral portfolio name or identifier;
- (b) SIMM shortfall amount; and
- (c) Analysis of shortfall causes (e.g., missing risk factor, insufficient coverage of non-linear risk, high realized market volatility relative to the SIMM calibration, or other methodology or calibration related issues).

2. Reconciliation issues

Users of the SIMM are expected to provide quarterly to ISDA the following data on those reconciliation issues that resulted in a *dispute* of at least 10 days in duration. A *dispute* is defined as a genuine margin reconciliation problem for a portfolio that is otherwise reconciled. If a material discrepancy on margin calculation emerges, it is assumed that SIMM user counterparts will first thoroughly investigate the cause of the discrepancy, including checking whether their trade portfolios match and their sensitivities are comparable. If, after all these checks have been carried out, the margin call still falls outside some level of tolerance relative to what the counterpart calculates as appropriate to post, and both parties believe their calculations to be correct, would the parties consider this a margin dispute, with one party choosing not to

post the full amount of the counterpart's margin call. Issues which persist for 10 days of continuous margin disputes, where one counterpart is paying only the undisputed amount to the other, should be escalated to ISDA.

Reports must include the following data:

- (a) Bilateral portfolio name or identifier, and initial date of reconciliation issue;
- (b) Reconciliation issue severity in terms of absolute and relative amounts; and
- (c) Analysis of underlying cause of reconciliation issue (e.g., insufficient definition of risk factor, etc.).

All data collected from SIMM users for any purpose related to the governance of the SIMM will be anonymized so as to protect the confidentiality of the provider and its counterparties. An anonymized list of shortfall issues will be analyzed taking into account materiality, severity, frequency and commonality of issues. This information will be used to assess the need for potential re-calibrations, risk factor enrichment and/or methodology enhancements.

II.D. Ad hoc Intra-year methodology review and re-calibrations

The Committee will conduct a quarterly review of shortfalls and reconciliation issues, escalated by SIMM users. If this review reveals shortfalls which are material and repeated, the Committee will consider whether intra-year SIMM modifications are required and whether a partial or full re-calibration should be conducted, prior to the regular annual re-calibration and methodology review.

Additionally, if at any time, ISDA determines from escalated user submissions that an issue may deserve to be addressed more urgently, ISDA will call an *ad hoc* meeting of the Committee to review and address the issue.

II.E. Modifications to risk factors and methodology; Notification to regulators; and Industry-level validation and back-testing

1. Changes to the Risk Factors and/or the Methodology

The Committee may recommend changes to the SIMM risk factors and/or methodology. Changes in risk factors may require re-definition of asset classes and buckets, data sources for calibrations, and mappings, which, in turn, may result in changes to the methodology. In addition, changes to the methodology may be motivated by: reported shortfall or reconciliation issues; the addition of new risk factors; insufficient non-linear coverage for a particular risk; indications that changes in granularity would be appropriate; revision of model assumptions; and a need to further simplify the model for SIMM users.

Consideration of reported shortfall issues may be prioritized in accordance with:

- (a) Frequency of occurrence and how widely experienced;
- (b) Magnitude of impact on risk shortfalls or product requirements;
- (c) Regulatory feedback and/or requirements; and
- (d) Participant feedback and/or requirements.

The Committee will ensure that proposed changes:

- (a) Can be implemented by a wide range of SIMM users;
- (b) Can be implemented in a timely manner;
- (c) Are stable and predictable and allow estimation of future margin requirements for liquidity planning purposes;
- (d) Allow for verification of margin calls made by counterparties to support efficient dispute resolution;
- (e) Offer robust and comprehensive risk coverage;
- (f) Incorporate clearly defined risk sensitivity definitions which can be broadly produced; and
- (g) Are subject to suitable governance in future extensions and evolution.

2. Notification to Regulators

In accordance with regulatory requirements, ISDA will provide written notification to the regulators: when the scope of the SIMM is expanded to include additional risk factors; when material changes are made to model assumptions; or when the resulting changes in SIMM users' IM requirements would be material. Such notification will be given at least 60 calendar days prior to the effective date of SIMM modifications. [Section II.H, below]

3. Industry-level Back-testing and Validation

In support of material changes to the SIMM referenced in subsection 2 immediately above, and notification thereof, ISDA will coordinate SIMM user back-testing and validation as required. Any additional back-testing will be conducted as agreed by ISDA and the Executive Committee.

II.F. Regulatory engagement

The Committee will serve as a point of feedback and dialogue with global regulators regarding the governance of and modifications to the SIMM.

II.G. Fragmentation of SIMM across jurisdictions

ISDA SIMM is intended to be used across a broad set of jurisdictions. As such, it is not envisioned that ISDA will produce versions applicable to single jurisdictions only, as to do so would undermine the original goals of SIMM. In consideration of changes to SIMM, due regard will be given to the global share of market participants affected by these changes and to allowing regulators sufficient time to review proposals and SIMM users to raise additional funding, adjust their trade exposures, or take other remedial actions.

II.H. Publication and implementation of SIMM model modifications

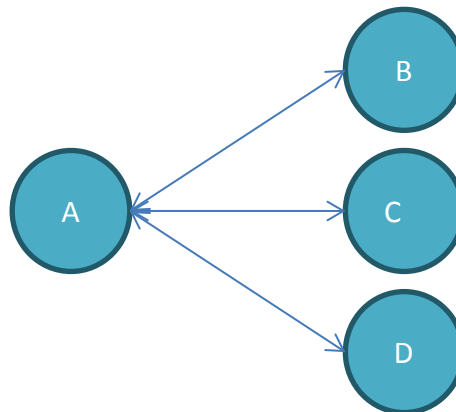
After SIMM model modifications are agreed by the Committee and vetted with regulators, ISDA will publish SIMM enhancements in a manner that makes them accessible to all SIMM users and regulators, and publish the effective date of the revised version of the ISDA SIMM. In setting the effective date, the Committee may take into account factors such as implementation difficulty and margin impact magnitude. Participants are expected to implement SIMM modifications for the portfolio in question by the effective date. Implementation rules will be defined in order to facilitate the orderly adoption and application of the new SIMM rules and to define the process for transitioning to the new version of SIMM.

III. Firm Level Portfolio Monitoring and Risk Remediation

U.S. and European final rules require monitoring and assessment of controls, validation, and operational process and procedures surrounding margin models (See U.S. Prudential Regulators Final Rule §__.8 (f); CFTC Final Rule §23.154; and EC Delegated Regulation Articles 14 and 18 (4 April 2016)).

Rules also require ongoing monitoring of portfolio level deficiencies in the SIMM. For example, European rules require continuous monitoring with a “comparison between the values produced by the model and realized market values of the non-centrally cleared OTC derivative contracts in the netting set” at least every three months. Consequently, SIMM users will need to create the infrastructure to monitor a substantial number of counterparty portfolios for risk coverage shortfalls in SIMM. SIMM user firms also will need to remediate any margin shortfall risk through additional margin or tracking of uncovered exposure.

Portfolio monitoring should identify situations where SIMM leaves risks in portfolios uncovered to an extent where the 10-day 99% confidence level standard is not met. A firm using SIMM needs to monitor all portfolios subject to SIMM. In the diagram, where firm A has SIMM-margined portfolios with firms B, C, and D, firm A needs to monitor each bilateral relationship for SIMM risk coverage.



III.A. Monitoring, reporting and remediation thresholds

1. Applicable Thresholds

Back-testing of portfolios between counterparties is an onerous process, one that smaller industry participants may have difficulty in conducting across a large number of portfolios. Even for firms with substantial infrastructure, finding the resources needed to back-test a large number of complex portfolios has proven very challenging. In addition, ISDA requires consistent reporting standards and assumptions in order to correctly identify potential SIMM issues. Therefore the following thresholds may be applied:

(a) Portfolio monitoring threshold

SIMM user firms may conduct monitoring only on those portfolios with SIMM margin of over EUR 50 million

- (b) Quarterly ISDA review threshold
SIMM user firms are required to report margin coverage shortfall when such shortfalls are over a reporting threshold specified by ISDA which will not be more than the remediation threshold below.
- (c) Remediation threshold
SIMM user firms are required to consider remediation only when the SIMM shortfall exceeds both EUR 50mm and 15% of the SIMM margin amount.

2. Single counterparty monitoring

Firms may allow a single counterparty in a relationship pair to conduct monitoring. For instance, where a dealer faces a financial end-user, the dealer may have more advanced and scalable monitoring infrastructure. In this case, the dealer conducts the monitoring of the portfolio on behalf of both counterparties, thereby reducing the burden on smaller market participants.

III.B. Assessment and monitoring of SIMM performance

1. Assessment of “SIMM shortfall amount”

SIMM shortfall amount is the smallest SIMM margin amount that would give a Green traffic light signal from a backtesting or benchmark analysis using the 99% confidence level.

Two exercises need to be performed by firms monitoring SIMM. One of these, described as (b) below, is a backtest of the portfolio over a period equal to the SIMM calibration standard of 1 year of stress data and 3 years of data from the most recent continuous period from the calibration date (“1+3 standard”) which satisfies requirements across regulator jurisdictions.

(a) Comparison of actual portfolio level PnL moves:

Actual PnL comparisons to SIMM are useful in uncovering the effect, on a particular portfolio, of risk factors or risk dynamics not covered sufficiently by SIMM.

In conducting their Actual PnL analyses, firms may compare either:

- i. ten-day SIMM to ten-day actual PnL moves, or
- ii. “one-day SIMM” to one-day actual PnL moves.

PnL should be net of cash flow effects.

The Basel traffic light test shall be applied to the number of times which the actual PnL breaches the SIMM level. The thresholds for these tests may be published by ISDA. If the test is Red, then the SIMM “shortfall” of the portfolio shall be defined to be the least amount of extra IM which would need to be added to give a Green result from the test.

(b) 1+3 Standard

For a given portfolio, SIMM is intended to cover risk to a 10-day 99% risk level consistent with the “1+3” standard. The performance of SIMM for risk factors it covers need to be viewed within the context of the “1+3” horizon. Viewing SIMM performance under this time horizon is meant to prevent extreme procyclical changes in initial margin levels.

To assess whether a spike in risk factor volatility causes a SIMM margin coverage shortfall under the “1+3” standard, firms may use various types of analyses, including backtesting techniques reflecting 1 year of stress and 3 years of most recent continuous portfolio market conditions. Appropriate Basel traffic light tests should be applied. If the test is Red, then the SIMM “shortfall” of the portfolio shall be

defined to be the least amount of extra IM which would need to be added to give a Green result from the test.

Where portfolio backtesting techniques are not used, firms should take care to ensure that any analysis is in line with standards described above.

2. Monitoring

SIMM users will be required to monitor portfolios to identify cases where SIMM does not cover 99% risk over a pre-specified time period (such as the 1+3 standard). Monitoring may identify several types of exceptions:

- (a) A Red result on the Basel traffic light test, where the shortfall is greater than the applicable threshold for monitoring, ISDA reporting, or remediation
- (b) A SIMM user trades a product whose main risk factor not covered by SIMM; and
- (c) A SIMM user identifies a structural change in the market which does not seem to be compatible with SIMM structure.

A margin coverage shortfall due either to a significant missing risk factor or to an existing risk factor that fails the “1+3” standard should be reported to ISDA during quarterly reviews.

Additionally, SIMM users may find that a national regulator requires a SIMM amendment to cover additional uncovered risk in a particular portfolio. Each of these situations may require reporting or action to be taken by both counterparties.

3. Agreement on exceptions and causes

Back-testing can be very complex and each counterparty is likely to have its own shortfall: it is possible that counterparties’ analyses do not agree. Counterparties may also disagree on a SIMM margin number itself, possibly due to differences in trade population, risk sensitivities, or risk mappings. Risks, portfolio composition, and sensitivity mappings may need to be reconciled to ensure that both parties are looking at the same set of risks and data.

Through bilateral discussion, counterparties should validate portfolio exceptions and agree on the causes of the exceptions and shortfalls so that the correct risk measurements are employed and appropriate mitigations and remediation (e.g., margin adjustments) are taken.

Any issue that is determined to require remediation should be reported to the Committee for formal industry-level analysis of SIMM issues. (See Section II.C, above)

III.C. Shortfall coverage remediation

1. Remediation approaches

Once a “1+3” shortfall amount (III.B.1.(b) above) is agreed to be greater than remediation thresholds, counterparties need to determine the amount of risk coverage shortfall and consider measures to correct

the shortfall. The counterparties may agree to apply a margin adjustment (additional margin) sufficient to cover the uncovered portion of risk by SIMM. Margin adjustments may be accomplished by:

- (a) Applying a multiplier to SIMM – a multiplier greater than 1.0 at the aggregate portfolio, asset specific sub-portfolio, risk class, risk type or risk factor level, or a level defined by any combination of the above. The multiplier is applied to the respective SIMM component;
- (b) Applying a fixed add-on amount – a fixed amount is applied to cover the uncovered portion of risk
- (c) Applying a dynamic add-on amount – a dynamic amount as a function of risk factor and risk type
- (d) Use of the Standard Schedules – trades causing exceptions are taken out of risk-based SIMM margining and are subject to notional percentage based on the Standard Schedules or ‘regulatory grids’ provided in the regulations. The trades that will be excluded from the SIMM calculation will constitute a stand-alone sub-portfolio for application of the Standard Schedule. When calculating the Standard Schedule margin requirement, the NGR shall be set to 1, unless the counterparties agree bilaterally to calculate and use the NGR applicable to the portfolio of trades to which the regulators’ grid calculation will be applied (i.e., the specific sub-portfolio NGR).

2. Remediation appropriateness

The choice of margin adjustment should reflect the analysis of the issue identified as causing the shortfall.

3. Regulatory remediation

SIMM users may find that a national regulator requires a margin remediation address additional uncovered risk in a particular portfolio. Such situations may require action and reporting to be implemented by both counterparties.

III.D. Remediation principles

1. In choosing from the above approaches, a firm may identify the risk factor that caused exceptions. If the risk factor is directly covered by SIMM, then a multiplier may be applied to that risk factor’s risk weight;
2. Counterparties may agree that multipliers be predefined as a function of the number of exceptions over a shorter or different time period than that dictated by the 1+3 standard described above. However, such arrangements may have undesirable pro-cyclical effects on margin amounts;
3. If a risk factor causing exceedances is not covered by SIMM, then firms should respond by applying a fixed or dynamic add-on, or by removing the trades in question from SIMM margining;
4. Any remediation approach taken between counterparties should be:
 - (a) Agreed to by both counterparties; and
 - (b) Applied by both counterparties to the calculation of the SIMM margin they collect from the other.

This “symmetry principle” requires that the same approach be used, not that the same margin amount be collected. For instance, margin amounts collected may reflect asymmetric risk. However, the approach applied by the counterparties should be consistent.

5. Remediation steps taken by one pair of counterparts for their margin calculations on their bilateral portfolio do not need to be applied to their portfolios with other counterparts. For instance, if *A* and *B* have a

portfolio-level SIMM issue and agree a set of remediation actions, portfolios between *B* and *C*, or *C* and *D* do not need to reflect the same changes. The pairs *B-C* and *C-D* may agree their own actions bilaterally;

6. It is inappropriate to force a particular remediation action on one's counterpart, since different participants may have different remediation or analytical capabilities.

III.E. Remediation timelines

Exception remediation must balance the needs to react promptly and mitigate risk within the time required to perform a thorough review. Remediation timelines may require that:

1. Issues be agreed within 30 days of identification of issue by counterparties; and
2. Counterparties complete remediation within a reasonable, agreed timeframe such as 90 days after periodic analysis and issue agreement.