RUTTER ASSOCIATES LLC

INITIAL AND VARIATION MARGIN FOR OTC DERIVATIVES

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by

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Basic ISDA Agreement Structure

ISDA Master Agreement plus Schedule

- Governs legal and credit relationship of parties
- Includes representations, events of default and covenants
- Incorporates Confirmations
- Schedule makes elections and changes to standard provisions

Credit Support Documents

- Offering protection against credit risk

Short Form Confirmations

- Incorporate Definitions
- Specify economic terms of each Transaction
- Include Transaction-specific modifications

Long form Confirmations

- Specify economic terms of each Transaction
- Include Transaction-specific modifications

Definitions

- Contains standard terms and definitions for documenting particular types of Transactions

Credit Support Documents

Types of Documents

- Legal structure
  - Pledge
  - Title transfer
- Governing law
  - New York
  - English
  - Japanese
  - Supplemental provisions for other jurisdictions

Two types of collateral exchanges:

- Periodic, based on mark-to-market value of transactions and of collateral held
  - Think “Variation Margin”
- Upfront posting of margin, usually for a specific trade (“Independent Amount”)
  - Think “Initial Margin”
  - But new regulatory requirements for Initial Margin are different in many important ways
- Thresholds and Minimum Transfer Amounts: similar concepts are included in new regulatory requirements

Pre-crisis Collateral Usage and Practices

Collateral was extensively used for derivatives before the crisis

- Year-end 2007: $2.1 tr. in collateral in use; 63% of trades and 65% of credit exposures were covered by collateral
- Variation Margin was widely used, even between dealers
  - Provided credit support
  - Facilitated trading by not eating into unsecured credit limits
- Independent Amounts were used with certain counterparties, particularly weaker credits and hedge funds
- Collateral was typically exchanged by the parties and was not held by a third party custodian
- Over time, daily exchange of collateral became more common, but weekly, monthly and periodic was also used.
- Disputes often arose, whether on the population of trades or on the valuation of transactions and collateral
- Rehypothecation or reuse of collateral was common practice
- Variability in market practices and terms led to a high degree of optionality

New Regulatory Requirements for Margin

Milestones

- 2011 Cannes G20 statement: Called on international bodies “to develop for consultation standards on margining for non-centrally cleared OTC derivatives”
- Basel Committee and IOSCO formed the Working Group on Margin Requirements (WGMR)
- Final WGMR framework published in September 2013; national implementations followed
- Phase-in of Initial Margin requirements began in September 2016 for major dealers and continues annually through September 2020 for most financial institutions
- Variation Margin requirements applied to major dealers from September 2016 and to virtually all financial institutions from March 2016
- Regulators have exercised some forbearance from strict adherence to the deadlines given the monumental tasks involved

Initial Margin Phase-In Calendar

The IM phase-in date is determined by each bank's aggregate notional amount of non-centrally cleared derivatives.*

1 Sept 2018 - greater than € 1.5 Trillion
1 Sept 2019 - greater than € 750 Billion
1 Sept 2020 and annual thereafter - greater than € 8 Billion

The threshold calculation includes the notional amount of physically settled FX forwards and swaps, although transactions in these products are not subject to IM requirements.

IM requirements apply to all NEW contracts entered into after the phase-in date with counterparties similarly subject to the IM requirements, and may apply to old transactions if bi-laterally agreed with the relevant counterparty.

* IM phase-in will be based on the average aggregate notional amount of uncleared derivatives at the end of March, April, and May of each year.

IM Documentation Requirements

Changes to documentation to address IM will be necessary even though:

- Collecting or posting variation margin is currently part of your documentation
- Current documentation may include Independent Amounts for specific trades

IM Rules differ from how Independent Amount is currently used:

- Portfolio-based, not specific to individual transaction
- Based on standardized schedule, internal models or third-party models
- Dynamic, not static
- Affected by assumptions on trade sensitivities

Time-consuming and challenging to get attention of counterparties and custodians, who may have many negotiations and will likely request different terms

Decision must be made about how to address legacy trades: Roll legacy trades into new IM documentation OR legacy trades under existing documentation/new trades under new IM documentation

The Daily Posting of IM Will Require Changes to the Trading, Risk and Funding Processes

Trading desks will need to understand and apportion the cost of the IM process with its attendant impact on:

- Counterparty Credit Value Adjustments (CVA)
- Cost of carry on margin or Funding Value Adjustments (FVA)
- Allocated costs of economic and regulatory capital

Risk Management will need to consider:

- How Thresholds and Minimum Transfer Amounts are to be apportioned within and across counterparty entities
- Impacts of potential future collateral calls on PFE and counterparty liquidity
- The ability of counterparty to provide IM in the agreed form and currency required by the new and/or amended IM agreements
- The various custodial and other holding and transfer arrangements for the movements of IM

Treasury and Funding areas will need to consider:

- The impact of IM on the firm-wide cash and securities funding requirements
- The impact of new IM requirements on capital calculation
- The methodology for apportioning the changes in both funding and capital cost of IM between and among affected trading products

Understanding and Implementing SIMM or Other Model

- Initial Margin is aimed at 99%-ile VaR over a 10-day holding period.

- Model user must be able to calculate (net) derivative sensitivities (deltas and gammas) to risk/pricing factors within each product group including:

  - ➢ Interest rates
  - ➢ Credit spreads
  - ➢ Equity prices
  - ➢ Commodity prices
  - ➢ FX Rates
  - ➢ Implied Volatilities of the above
  - ➢ Base Correlations

- Model user must understand risk weights to attach to each sensitivity consistent with a 1-in-100 10-day change in the underlying risk/pricing factor.

- Model user must understand (but not calculate) correlations among risk weight-adjusted sensitivities in order to calculate IM for any product grouping.

- Implementation may be vendor-supplied or in-house.

Tasks Necessary to Meet Initial Compliance Requirements

Implementing margin requirements involves the actions and coordination of a number of areas of the bank, including:

Risk Management / Accounting	• Periodic re-calculation of derivative notional amounts outstanding subject to IM, including those of affiliates and affiliate-to-affiliate trades
Middle Office/ Operations	• Proper categorization of counterparties and traded products
Legal	• Reviewing and confirming that counterparty documents (Masters, CSAs, etc.) conform to master netting and margin requirements of the rules
Middle Office / Treasury	• Insuring that sufficient eligible collateral is available to meet IM needs
Operations / Legal	• Establishing custodial relationships for IM amounts pledged and received
Risk Management	• Determining if standardized schedules, internal models, or third party models (such as ISDA-SIMM) will be used to determine daily IM amounts, and assigning organizational responsibility for maintaining and on-going testing of the models
Middle Office	• Establishing reconciliation procedures for IM differences with counterparties
Middle Office / Operations/ IT	• Enhancement of existing trade capture systems to accommodate new data requirements
Front Office	• Incorporating XVAs (notably FVA) into trade pricing

Tasks Necessary to Meet <u>Ongoing</u> Compliance Requirements of Margin Regulations

Risk Management	• Periodic re-calculation of derivative notional amounts outstanding subject to IM, including those of affiliates and affiliate-to-affiliate trades
Risk Management	• Periodic back-testing of actual trading history against IM model sensitivity assumptions
Risk Management	• Recalibration of IM model assumptions for actual market data
Middle Office / Operations / Legal	• On-boarding of new counterparty relationships
All Areas	• Incorporation of new products into IM procedures
Treasury and Liquidity Management	• Simulating future cash and security requirements

Useful Links

Current version of ISDA SIMM:
https://www.isda.org/a/oFiDE/isda-simm-v2.pdf

ISDA WGMR Implementation Page:
http://www2.isda.org/functional-areas/wgmr-implementation/

CFTC Fact Sheet on Final Rule Regarding Margin for Uncleared Swaps:
http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/uncleardmargin_factsheet121615.pdf

OCC Description of Final Rule on Margin Requirements for Non-cleared Swaps (with links to text of final rule):
https://www.occ.treas.gov/news-issuances/bulletins/2015/bulletin-2015-49.html

Final European Margin Rules:
https://ec.europa.eu/transparency/regdoc/rep/3/2016/EN/3-2016-6329-EN-F1-1.PDF