ISDA Safe, Efficient Markets

Suggested Operational Practices for the OTC Derivatives Collateral Process

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Disclaimer

This Suggested Operational Practices for the OTC Derivatives Collateral Process is not binding and does not constitute legal, accounting, regulatory, financial or any other professional advice. As with all market information and guidance that ISDA disseminates, parties are free to choose an alternative approach. Parties are responsible for considering their own documentation and the specific terms of any transactions and should satisfy themselves that the Suggested Operational Practices for the OTC Derivatives Collateral Process are appropriate and are properly applied in the context of those transactions to reflect the commercial intention of the parties.

Introduction

This edition of **Suggested Operational Practices for the OTC Derivatives Collateral Process** (the SOP) substantially revises the guidance that ISDA has previously provided to the market on the operation of collateral agreements, including the 2013 interim updated edition of the Suggested Operational Practices for the OTC Derivatives Collateral Process. This is largely in response to the evolution of regulation governing the collateral management process during the past 10 years.

In response to the financial crisis, the G-20 mandated the Basel Committee on Banking Supervision (BCBS) and Board of International Organization of Securities Commissions (IOSCO) to develop consistent global standards for non-centrally cleared over-the-counter (OTC) derivatives. In September 2013, BCBS-IOSCO published a global policy framework and timetable for OTC derivative margin reform which aimed to reduce systemic risk by ensuring collateral is available to offset losses caused by the default of a derivatives counterparty.

A key element to this is the requirement that financial firms and systemically important non-financial entities exchange Variation Margin (VM) and Initial Margin (IM) to mitigate counterparty credit risk from uncleared OTC transactions. VM ensures that the current value of a derivative is collateralized and was already a standard feature of the OTC market. IM was traditionally less common but is designed to ensure there is a margin "buffer" to protect against potential losses following a change in value of a derivative position occurring between a counterparty closing out a position upon default of its counterparty and the last exchange of VM.

The previous SOP documents were published prior to the finalizing of many global regulators' rules impacting collateral, including IM.

Approach to the SOP

Working group members from the SOP for OTC Derivatives Collateral Process Working Group, which is comprised of representatives from the industry, including buyside and sellside firms, custodians – both triparty and third party – and vendors and infrastructure providers, developed this SOP.

Origins of the SOP

This SOP replaces and vacates earlier editions of similar documents, such as the 2013 interim edition of the Best Practices and earlier editions of that document that were published by ISDA in 2010 and 2011.

The original and continuing intent of the document is to demonstrate ISDA's pro-active commitment to industry improvements based on industry engagement, by establishing a set of suggested practices that may inform the activities and policies of market participants.

The harmonization between industry participants serves to mitigate risks inherent in the collateral management process and also sets expectations and standards for new entrants to the over-the-counter (OTC) derivative market.

This document focuses on OTC derivative trades collateralized on a bilateral basis under the ISDA English and New York law Credit Support Annexes ("CSA") and English Law Credit Support Deed ("CSD") or other similar document, such as a Collateral Transfer Agreement ("CTA") agreed between two parties. It does not cover OTC derivatives that have been given up to central clearinghouses by clearing members, whether on their own behalf or that of their clients, however, when relevant, topics included in this document can be referenced for ETD, Cleared OTC, repo, securities financing and other collateralized products' processing.

It is important to note that the SOP is the latest in a series of industry efforts by collateral professionals to articulate and enhance collateral management practice.

Since 1998 with the publication of the first ISDA Guidelines for Collateral Practitioners, collateral professionals have sought to improve the collateral process. Following the Long-Term Capital Management crisis, the first real test of the newly-emerging collateral management process in 1999, updated guidelines were published in 2005. Following the financial crisis in 2008 and the Uncleared Margin Requirements (UMR) implemented from 2016 onwards and then the market volatility events, further market efficiencies were necessary.

With developments in the ISDA Clause Library, the ISDA Taxonomy, and the Common Domain Model, along with other digital and technological advancements, automation within the collateral management process will contribute to risk mitigation.

It should be noted that the SOP is not intended to create legal obligations nor alter any existing obligations of the parties pursuant to their bilateral documentation. As market participants continue to discuss and evolve the topics contained herein, this document may be subject to periodic revisions.

Section 1 - Know Your Counterparty/Client Procedures and Counterparty and Custodian Onboarding

Introduction

When onboarding new clients, counterparties and custodians, the process begins with a Know Your Counterparty/Client ("KYC") review and then importing data to internal trading, compliance, and collateral management systems. It is important to ensure that key procedures are followed and that tasks are completed accurately and in a timely manner, prioritizing where necessary, and aspiring to a one business day turnaround for each step, but no more than three business days.

Adherence to the SOP will ensure that collateral operations teams are in a position to support the collateral process as soon as trading commences following the execution of the ISDA and credit support document or other trade confirmation. Both parties should ensure that adequate resources are allocated to the onboarding process to ensure that all procedures are completed in the established timeframes.

For regulatory IM, it is important to first establish if an entity is in-scope for such regulatory requirements based on its gross notional exposure and the application of relevant thresholds. For example, an entity may be in-scope for the UMR IM requirements based on their gross notional exposure, also known as the Average Aggregate Notional Amount (AANA). Secondly, it is important to monitor the entity's IM thresholds with each of its counterparties to best plan for papering and operational set-up for UMR IM. When calculating both the AANA and IM thresholds, it is critical to consider all applicable regulatory regimes and also the legal entities' consolidated entities.

1.1: Counterparty KYC and Compliance Review

Before two parties can begin negotiating the ISDA/CSA/CTA/CSD Terms, information must be shared with the swap dealer to complete a KYC review.

When onboarding begins, the KYC process will include providing documents regarding financial status, legal structure, and investment management strategy.

It is incumbent upon both institutions to maintain a current list of KYC contacts. When available, KYC tools and industry-accepted messaging services should be used to ensure that correspondence is recorded in a centralized location and that distribution lists and contacts are regularly maintained by both parties.

Some elements of KYC are mandated for certain types of regulated entities in derivatives product regulations and may be provided through ISDA Protocols (such as the ISDA Dodd-Frank Protocols) and captured electronically via the ISDA Amend platform.

It will also be important to determine whether any regulatory margin requirements apply to the relationship, which may depend on the status of the entity being onboarded, or related entities (such as any guarantor). ISDA has published regulatory margin self-disclosure letters and made these available in ISDA Amend to facilitate provision of the necessary information.

To reduce manual processing and repetitive workflows, industry utilities should be used to share and manage necessary documentation and information, when possible.

1.2: Custodian KYC and Onboarding

Onboarding with custodians, especially when segregating collateral, is a process that is similar with each custodian and yet each custodian may have specific document requirements due to their jurisdictional rules. Similar to counterparty KYC and onboarding, it is important to get a list of all the necessary requirements from a custodian – whether as a pledgor or a secured party – and maintain these documents with any updates. In an effort to reduce the time from start to finish, it is imperative that all parties involved complete requests for information and documents as promptly as possible.

1.3: Exchange of Contact Information - Operations

General contact information for collateral operations should be included in the credit support document.

Each institution should provide a group email address (including relevant internal and external emails that should be on the distribution list), phone number and an initial operations contact to help streamline the data collection process when establishing new accounts.

It is incumbent upon all institutions to maintain a current listing of daily contacts. This should include department managers and, in some cases, credit officers. Where available, industry-accepted messaging services should be used to ensure that distribution lists and contacts are regularly maintained by both entities.

Operations teams for both parties are encouraged to hold an initial meeting to go over specifics of their margining process (structure/model, custodians and their requirements/contact info, software/tech used, release of collateral requirements, etc.)

1.4: ISDA Master Agreements and Credit Support Annex, Collateral Transfer Agreement and Credit Support Deed

An ISDA Master Agreement and CSA/CTA/CSD should be used to contractually agree collateral terms between counterparties. Long form confirmations are not recommended but may be deemed necessary with some counterparty relationships and one-off transactions.

OTC derivative transactions should not be entered into without a signed ISDA Master Agreement and CSA/CTA/CSD in place, if appropriate, with the counterparty. Once counterparties have executed these agreements, only the economic terms of a transaction will need to be negotiated and documented each time a transaction is completed.

If non-standard terms in a credit support document or long form confirmation will require manual support from collateral operations, the agreement must be reviewed and approved by operations prior to its execution. Each institution's operating areas are responsible for supporting any manual processes in a controlled and efficient manner.

Additionally, all non-standard processes should be reviewed for effectiveness on a periodic basis.

ISDA Master Agreements and CSAs/CTAs/CSDs for various jurisdictions are available at the ISDA Bookstore.

1.5: Eligible Collateral Schedule

There are two types of Eligible Collateral Schedules (ECS); one with triparty providers and one with counterparties. If a triparty custodian structure is being used, then the ECS data must be included in both the triparty-specific documentation and also in the CSA/CTA/CSD with the counterparty.

If possible, it is beneficial to digitize the data within the ECS, such as using the Common Domain Model (CDM), so that all parties to the document can consume the data into their operating system with limited manual processing to reduce potential downstream operational issues and to expedite onboarding.

1.6: Custodian Control Agreements

Any required Account Control Agreement (ACA), or equivalent document, should be executed along with the ISDA Master Agreement and CSA/CTA/CSD at the onset of a new client relationship. This may be completed via an online negotiation tool.

Prior to executing collateralized trades for new counterparties, each party (including the 3rd party custodian bank) should countersign and deliver an executed copy of the ACA or equivalent document. The terms therein would apply to counterparties who require segregation of collateral, whether mandated or otherwise, and make reference to the ISDA Master Agreement.

Collateral assets pledged by mutual funds are currently required to be segregated for the benefit of the Secured Party at the fund's own custodian for mutual funds registered under the Investment Company Act of 1940. Non-cleared margin rules for IM also require segregated accounts, and in some regulatory regimes - with unaffiliated third parties. Without an executed ACA or equivalent document, bilateral swap transactions will not be sufficiently collateralized, creating undue risk for the Secured Party.

Whether within the ACA as an appendix or in a Service Level Agreement, reporting requirements by the pledgor and/or secured party should be included to take effect at time of onboarding.

1.7: Exchanging Standing Settlement Instructions (SSIs)

Standing Settlement Instructions ("SSIs") should be exchanged at time of onboarding or at least prior to first collateral delivery.

Each institution should provide authenticated SSIs for all eligible collateral pools covered by the CSA/CTA/CSD. The verification process should be completed before the first exchange of collateral. Institutions are responsible for conforming to their own internal funds transfer policy but as a minimum their process should include a call back to someone other than the individual who originally supplied the SSIs. The call back process also applies to amended SSIs.

A client's prime broker, custodian, or outsourced operator can provide SSIs on behalf of the client if evidence of delegated authority is received from the client.

Industry utilities are encouraged to be used to distribute, authenticate, and maintain SSIs.

1.8: Tax Documentation Handling

All relevant tax documentation should be put in place during the onboarding process or at least prior to any collateral being exchanged.

The repatriation of interest on cash collateral (or coupons on security collateral) to the Transferor can be delayed or incomplete if the relevant tax documentation is not in place or has expired.

Tax documentation (such as forms W-8 and W-9 in the US and other documents as appropriate in other jurisdictions) should be exchanged between parties to ensure any interest accrued on cash collateral balance or proceeds of security collateral are not subject to withholding tax or any other deductions applicable for other tax jurisdictions. Firms should also implement processes whereby existing tax documentation is monitored to ensure that if the existing tax documentation is due to expire, updated tax documentation can be exchanged ahead of the existing documentation's expiration date.

In 2010, the Foreign Account Tax Compliance Act (FATCA) was signed into US law. FATCA requires, among other things, foreign financial institutions, such as banks, to enter into an agreement with the US Internal Revenue Service (IRS) to identify their US account holders and to disclose further account details. Given the global nature of derivatives trading, firms should consult their tax professionals to determine if FATCA rules apply in their specific trading circumstances.

1.9: Capturing Legal and Operational Terms on Internal Systems

The terms of newly-signed documents such as the CSA/CTA/CSD, ECS, and/or ACA should be input into internal systems promptly after execution of the agreements and appropriately prioritized relative to expected trading activity.

The relevant terms of new documents which have been entered into the legal documentation system should automatically feed into the collateral calculation system. Where there is no system interface between the legal documentation and collateral systems, the collateral team must have access to copies of executed documents to capture operational terms within the collateral application. As more fully described in ISDA's Collateral Management Transformation Toolkit: Digital Documentation and Streamlining to Operating Systems, there are operational risk benefits and cost reduction opportunities with both the online negotiation process along with importing data digitally into collateral management operations systems.

Firms should review system capabilities to manage the end-to-end margin and collateral process. At a minimum, they should support setup and management of legal agreement terms (including eligibility schedules), margin calculation and workflow processing and collateral settlement. Where possible, firms should consider using industry tools which can assist with automating margin call communication. Systems should support the maximum range of collateral eligibility, including pricing, where necessary.

1.10: Coordination of Negotiating Documents

The documents, including the CSA/CTA/CSD, ECS, and ACA, are not mutually exclusive, and negotiating the agreements may be completed concurrently.

ISDA Resources:

- ISDA Collateral Management Transformation Toolkit: Digital Documentation and Streamlining to Operating Systems
- ISDA Clause Library
- ISDA Create
- UMR By the Numbers
- ISDA Collateral Management Transformation Toolkit: Onboarding Custodians with Segregated Accounts
- Triparty and Third-Party Custodian Checklist
- ISDA Bookstore

Section 2 - Margin Requirement Calculations

Introduction

When calculating exposure for margin calls, it is important to ensure that exposure is calculated on a timely basis, using accurate valuation parameters consistent with standard market practices. The margin requirement calculation will include the mark-to-market of the specific trades covered by the agreement which is known as Variation Margin, any Independent Amounts (IA), or IM, which may be applicable at a trade or portfolio level, the valuation of collateral previously held or posted, and the application of other relevant collateral agreement terms (for instance, threshold and minimum transfer amounts). Note that in some jurisdictions, margin rules may be applied by regulators that overlay or in some cases supersede the contractual provisions agreed by market participants; accordingly, care should be taken to ensure compliance with all applicable rules, and especially to understand the interaction between rules and contractual provisions.

The application of rules and contractual provisions related to netting, the scope of agreement, branches, consolidated groups, and legal entity should be automatically applied so that only trades falling within the collateral agreement parameters are included in the margin calculation.

Adherence to the established guidelines will ensure that collateral operations teams are in a position to consistently apply exposure calculations in accordance with the ISDA CSA/CSD documentation, market conventions and applicable rules. This will help minimize margin disputes and ensure timely exchange of collateral, as well as helping market participants to comply with the relevant rules.

2.1: Variation Margin, Initial Margin, and Independent Amount Calculations

Variation Margin, Initial Magin, and Independent Amount calculations are three different methods for determining counterparty exposure.

Variation Margin ("VM") is a payment collected to cover daily mark-to-market exposure on trades defined under documentation.

Initial Margin ("IM") is intended to cover exposures that may arise in the period from the default of one party to the time when the portfolio of non-centrally cleared OTC derivative transactions are closed out or replaced within the Margin Period of Risk (MPOR). Regulatory IM (Reg IM or IM) is based on a regulatory calculation such as a standardized initial margin methodology (SIMM) that has been approved by the relevant regulator or a grid/schedule prescribed by a regulator.

VM and IM should be calculated in accordance with the relevant regulatory rules for the specific transactions covered by those rules and also in accordance with the collateral agreement between the parties. Note that some rules may "grandfather" pre-existing transactions and thus not apply to those trades.

Independent Amount ("IA") is an amount bilaterally agreed between the parties and can be determined in several ways (e.g., percentage of trade notional amount, fixed IA amount, or any other methodology or approach), and it is not required by regulators.

2.2: Timing of Inclusion or Exclusion of Transactions from Collateral Calculations

Unless applicable rules or contractual terms state to the contrary, in general, collateral should cover the present value of future cashflows between the parties to a swap, including settlement events that have occurred or will shortly occur until such time as they have been completed[1].

For new trades, all margin requirements should be included in margin calculations on trade date.

VM, where applicable, should include the value of any unsettled cashflows. This would include (but is not limited to) initial premiums, unwind fees, deferred premiums and settlement of swap performance amounts. The payor should not claim or receive credit from a VM perspective for payment of a cashflow until settlement has occurred.

Like VM, IM should include new trades and should be included in the margin calculation until settlement date.

If IA is determined by reference to trades, then the documentation will define in-scope trades, but these will likely include trades entered into before and after the applicable Reg IM compliance date. IA is a counterparty-to-counterparty, or bilateral, negotiated topic, unlike Regulatory VM and IM, which are driven by regulatory requirements. The IA requirement may be impacted by the IM requirement, and should be monitored carefully, especially if it ties to relationships with both a Prime Broker agreement and a non-Prime Broker agreement for the same legal entities.

In the normal course of business, with respect to terminated or matured trades where IA is calculated at the trade level and the confirmation or other relevant documentation is silent regarding the treatment of IA on matured or terminated trades, IA should be available to be returned to the pledging counterparty on the next available settlement day after termination date or maturity date, providing the CSA/CSD states a daily Valuation Date, and the period between expiration and settlement of the trade is not prolonged. When in doubt, parties should mutually agree IA handling in the event of an unwind or termination.

IM will generally be calculated at the portfolio level and be able to support the retention of IM in the portfolio until settlement date.

Finally, firms should also maintain the ability to net settle variation margin with IA trade premiums where legal terms allow.

Additional considerations may be included in the process to calculate margin, such as:

- IA requirement vs. IM with a Prime Broker Agreement and a Non-Prime Broker Agreement under the same legal entity
- VM and IA netting, especially with cash settlement
- IA and IM approach (Distinct, Allocated, Greater Of)
- Regulatory IM Threshold monitoring, (i.e., under 50m per counterparty relationship)

[1] For these purposes we assume in the text that settlement date represents the point where settlement finality occurs, but parties should be aware of and adjust for situations where settlement cycles are elongated.

2.3: Population of Trades to be Included

Unless applicable rules or contractual terms state to the contrary, in general, collateral should cover all derivative product types between two parties as defined by the applicable ISDA Master Agreement and CSA/CSD. It is important to keep populations of covered transactions in specific cohorts when calculating regulatory VM and regulatory IM, especially if both parties plan on 'grandfathering' or not including pre-regulatory implementation date legacy trades within a margin calculation.

Any trade that matches a derivative product type that is covered by the ISDA Master Agreement and/or listed in the CSA/CSD should be included in the collateral calculation used to determine whether or not a collateral exchange is required, unless stipulated otherwise by rules or contractual terms. If CSAs/CSDs or rules are ambiguous with respect to foreign exchange trades and lack differentiation between spot and forward transactions, it is common operational practice to exclude spot trades from the margin call calculation; however, it is recommended that parties bilaterally agree the handling of FX spot trades for the purpose of margin call calculation.

2.4: Minimum Transfer Amounts and Rounding

When calculating delivery or return amount for a margin call, it is important to have a consistent process for assessing MTAs and rounding, per the credit support documentation. This will help reduce margin call disputes; when one firm is expecting a margin call to be sent and collateral delivered and another counterparty is not expecting such action.

To ensure that regulatory requirements are met, MTAs that have been agreed in the CSA should be calculated first, and then the rounding can be attributed to that amount. Otherwise, rounding could result in no margin call being sent, even if the exposure is above the MTA.

However, when recalling collateral when the exposure is 0 or has changed position/direction, the full amount should always be returned. No MTA or rounding should be considered. When/If the Exposure towards a Party is zero, a full return can be demanded.

ISDA Resources:

- Trade Lifecycle Events for Regulatory Initial Margin
- Approaches to IA and IM

Section 3 - Margin Call Issuance and Response

Introduction

Greater automation of the collateral management process via electronic messaging will standardize the delivery method, content and formatting of margin calls, and will also improve the timeliness and security of call issuance and response. Once a counterparty exposure is calculated for VM, IA, and/or IM, there is a counterparty communication and settlement process that must be followed.

The process to send margin calls and affirm collateral to be pledged can depend on which type of custodian structure that will be used. There are two custodian structures that can support the custody of collateral and the process to settle/transfer collateral: triparty and third-party..

- Triparty collateral management/triparty segregation model refers to an agency service where the parties agree to the IM amount and a required value ("RQV") is sent to the triparty provider to fulfill the collateral requirement.

- Third-party custodian services refer to the traditional account structure for segregating margin, whereby a three-way ACA or equivalent agreement is in place among the pledgor, secured party, and custodian. In contrast to the triparty structure, the pledgor, its manager, or an administrator values the collateral, selects the collateral to be pledged along with confirming eligibility and concentration limits, attributes necessary haircuts and provides settlement instructions to the custodian. The custodian only provides settlement, segregation, and reporting services.

With the implementation of Phases 5 and 6 of the UMR, hybrid models combining the services of both triparty providers and third-party custodians have been developed. There are different iterations of these models that are specific to relationships established between respective triparty providers and third-party custodians, and those operating procedures may not fit with this SOP document.

Industry participants have experienced continued growth in margin call volume along with increased scrutiny of the collateral management process. Drivers for these increases include:

- the separation of collateral requirements into discrete processes for VM and IM;
- regulatory-driven bespoke processes for VM and IM with IM segregated at the custodian;
- the bilateral posting of IM;
- posting for IA and IM separately;
- the reduction in thresholds and minimum transfer amounts; and
- the move away from uncollateralized derivative transactions.

This increase in margin call volumes requires industry participants to further develop their processes to allow for scale while ensuring control. One area of focus is the communication of margin calls and related margin activities (e.g., substitutions, interest processing) between parties and to move from email to electronic messaging to reduce operational, counterparty, and liquidity risks.

This section focuses on OTC derivative trades collateralized under an ISDA CSA/CSD/CTA. However, it is intended to provide a foundation that can be leveraged for electronic messaging of other collateralized products and margin call processes in the future.

3.1: Data Availability

It is imperative that the data used in the margin calculation be received into the collateral system in a timely manner allowing for margin calls to be issued as soon as possible.

It is critical to establish firm cut offs for delivery and receipt of trade level details into collateral management systems. All business areas should be made aware of timeframes for the delivery of data and that trades booked after the cut-off will not feed into systems and will not be included in the margin call.

Timeliness for mark-to-market and IA adjustments is key for business and control areas to achieve optimum data integrity. This ensures that there is adequate time for sign-off and validation prior to the marks being published and a margin call being issued.

Calls must be issued by the notification deadlines outlined in the CSA/CSD; however, it is preferable for a call to be issued as early as operationally possible.

The criticality of early and consistent deadlines for margin data within and across firms is likely to become even more acute with the continued growth of margin call volume, as mentioned above, which will require complex calculations to be performed prior to the making of a margin call, and to both ensure compliance with the rule and avoid disputes regarding IM calculations; market participants should be prepared for tighter data delivery timeframes.

3.2: Data Integrity

To ensure that robust processes and controls are in place to monitor data integrity, it is important that the data contained within the margin call, along with the underlying data, is as complete and accurate as possible in order to minimize the risk of call dispute.

Margin call calculations rely on several data sources: trade and exposure data, collateral positions, agreement terms, market data, pricing feeds to calculate collateral values, and instrument data. Firms should have controls in place to measure the accuracy of such data.

For example, it is critical that complete programs monitor and track the receipt of all files and raise warnings and highlight potential missing or incomplete data. Examples of potential data issues might include missed or waived calls, stale or zero MTMs or pricing feeds, and lack of independent price verification.

Portfolio reconciliation, including trade data, is a method to reduce data inconsistencies between counterparties and can help mitigate disputes and counterparty risk.

3.3: Content for Exchanged Margin Call

The workflow for the triparty custodian structure includes the prior day's RQV as the collateral balance and the triparty provider allocating collateral from the pledgor to the secured party. More details regarding this messaging and workflow is available in the ISDA Triparty and Third Party SOP, located in the ISDA Margin InfoHub's Collateral Management SOP page.

For the issuance of exchanged margin calls using the third-party custodian structure, the following minimum standard data fields should be included[2]:

OUTGOING MARGIN CALLS

Required Fields	Definitions
Principal	Entity issuing margin call (per CSA/CSD unless mutually agreed between parties) Examples: 1. Bank XYZ 2. ABC Capital Management Strategy 135976 3. DEF Pension Fund 123b
Principal Reference ID	Legal Entity Identifier of counterparty issuing margin call
Counterparty Name	Entity to whom margin call is being issued (per CSA/CSD unless mutually agreed between parties) Examples: 1. Bank XYZ 2. ABC Capital Management Strategy 135976 3. DEF Pension Fund 123b
Counterparty Reference ID	Legal Entity Identifier of counterparty receiving margin call
Agreement Type	Identifies Business / Product Area Examples: OTC / REPO / TBA
Call Type	Identifies margin type and if there is a regulatory mandate. OTC Examples: - VM - IA - IM - Netted REPO Example: Netted Margin Call TBA Example: Netted Margin Call
Call Amount/Margin Required	Amount of Credit Support being called for which accounts for Exposure, Independent Amount, Threshold, Collateral Balance, MTA, Rounding Increment, etc.
Valuation Date	Close of Business date of the Mark-to-Market calculation that determines the underlying margin call
Base Currency	Currency in which margin call is calculated and denominated
Role	For Reg IM or other types of segregated collateral accounts, Pledgor or Secured Party

[2] In an effort to reduce collateral-related disputes and improve data integrity, some industry participants may require fields noted above as optional.

MARGIN CALL RESPONSE

Required Fields	Definitions
Agreed Amount	Amount of collateral that posting entity agrees to remit
Counterparty Name	Entity to whom margin call is being issued (per CSA/CSD unless mutually agreed between parties) Examples: 1. Bank XYZ 2. ABC Capital Management Strategy 135976 3. DEF Pension Fund 123b
Counterparty Reference ID	Legal Entity Identifier of counterparty receiving margin call
Agreement Indicator	Agreed, Full or Partial Dispute
Collateral Type	Cash code or security ID and par value
Quantity	Nominal value of the security (ies) being remitted
Settlement Date	Date on which the Counterparty agrees to remit collateral

Optional Fields	Definitions
Exposure	Current Mark-to-market value of the trade portfolio as recorded by the Counterparty, in base currency
Independent Amount	Additional credit support amount over and above Mark-to-market value, in base currency
Collateral Balance	Amount of collateral recorded by the Counterparty as held or posted, in base currency
Collateral In-Transit Balance	Value of current held and pledged (settled), in base currency
Exposure	Current Mark-to-market value of the trade portfolio as recorded by the Principal (In Base Currency)
Delivery Type	Delivery or Return of collateral
Call Type	Identifies margin type and if there is a regulatory mandate OTC Examples: - VM - IA - IM - Netted REPO Example: Netted Margin Call (TBD) TBA Example: Netted Margin Call (TBD)
Role	For Reg IM or other types of segregated collateral accounts, Pledgor or Secured Party

3.4: Data Validation

Before responding to a counterparty's call, the receiving party should promptly verify the core data elements that make up a margin call.

Parties should verify to ensure their counterparty has performed the correct mathematical calculation to arrive at a call amount. In an effort to mitigate collateral-related disputes, required fields and optional fields noted above, such as exposure, collateral balance, collateral in-transit balance, and the Independent Amount, if applicable, are recommended.

3.5: Call Response Timing

Where call issuance and settlement of collateral is same day, wherever possible, responses should be received as soon as possible after receipt of the call and no later than one hour prior to closing of the securities market and two hours prior to cash deadlines.

Parties should have the system capability and the procedural framework in place allowing for response time that will ensure delivery of collateral within the timeframes agreed upon in the CSA/CSD.

3.6: Adjustment of Margin Calls

Adjusted (revised) margin calls, when required, should be issued as early as possible during the day. The receiving party should endeavor to review and respond to the adjusted margin call in a timely manner to meet delivery timings in the CSA/CSD on a reasonable efforts basis.

It is recognized that adjusted margin calls may be necessary from time to time due to pricing, collateral or other issues. The parties should work together to provide notification, to respond to these adjusted calls and then deliver collateral on a reasonable efforts basis, even if the notification timing does not meet the formal definition in the CSA/CSD.

3.7: Failure to Respond

Margin call issuance and settlement timing for VM and IM are prescribed by UMR, and there are variances by jurisdiction. In addition, the CSA/CSD will include details regarding margin call issuance and settlement details.

However, from time to time, counterparties may experience technical difficulties preventing them from answering margin calls within the accepted timeframes. Wherever possible, parties should endeavor to communicate the existence of technical difficulties prohibiting call response as soon as possible. A party experiencing technical difficulties does not have good faith grounds to dispute all incoming margin calls for this reason alone - a dispute should still be raised only where there are reasons to believe the counterparty's margin call is erroneous in some way.

As there is clear guidance regarding the issuance of margin calls and the subsequent delivery of collateral arising from that call, it can be assumed that a failure to respond by close of business on settlement day, or the agreed upon date included within the CSA/CSD, constitutes a failure under the terms of the CSA/CSD. A response to a validly issued margin call should not be delayed by unnecessary requests for additional information. Parties should communicate technical difficulties prohibiting call response as soon as possible.

Section 4 – Substitutions

Introduction

Collateral substitutions, whether for Variation Margin, Initial Margin, or Independent Amount, is an operational process that is necessary for collateral and liquidity optimization. Ensuring substitutions are managed as efficiently as possible reduces operational risks of fails and friction, along with decreasing the cost of funding and counterparty risks.

In recent years, collateral and liquidity management has become more holistic across products and business lines, and substituting collateral for OTC derivatives can involve other areas, such as repo, sec lending, and Treasury operations. This SOP section is focused on OTC derivatives collateral management, but it is important to note that some of these guidelines can be replicated for other collateralized products as well.

A substitution can be initiated by either the Pledgor or the Secured Party. If the Secured Party initiates the substitution, it may be called a "proposal" or a "one-legged substitution" (because the substituted collateral would be the second leg of the transaction.)

Reasons for a substitution may include:

- Upcoming maturity or call of an asset
- Issuer downgraded and a resulting increase in haircut/decrease in collateral value, or the downgrade makes the asset ineligible
- Issuer put on downgrade watch and a clause requiring a "just in case" substitution was agreed during negotiations
- A security becomes a 'hot stock' or 'cold stock' and will be used elsewhere in the investment strategy
- Upcoming dividend, coupon payment, stock split, or other corporate action
- Sale of asset
- Collateral optimization
- Due to a merger or some corporate event, current asset collateral will result in a wrong-way risk or concentration limit breach
- Regulatory ineligibility of collateral, due to sanction, etc. (This is usually processed as part of the daily margin call, not separately via a substitution.)

To manage substitutions, both from your firm to your counterparty or custodian and vice versa, operational workflows need to be as streamlined as possible.

4.1: Documentation

Substitutions are not, generally, negotiated in collateral documentation beyond what is in the standard-form versions. Including substitution parameters in documentation may help firms reinforce coordination with internal teams, such as the front office, collateral management, and liquidity management. For those firms that do negotiate substitution provisions, including specific Notification Times, or requiring internal approvals, it is imperative to automate processes as much as possible, and to have communication protocols with other departments, such as front office, settlements, and liquidity risk and counterparty risk management.

4.2: Consent

In some jurisdictions, consent for substitutions is legally required; in other jurisdictions, it is not. However, in many firms' operational process, consent is consistently required as a means to ensure collateral systems are correctly updated and aligned, to confirm collateral eligibility, and to maintain a clean, single workflow.

Some reasons for proposed substituted collateral may be:

- Collateral issuer is on watchlist
- Collateral will mature or have a coupon in the upcoming [x] days

Accounting implications may be tied to 'control' of collateral for some types of firms. For those, even if there is not a legal requirement for consent, the process to track consent of substitutions may be necessary.

4.3: Time Parameters

Because collateral substitutions can result in an overcollateralization with the Secured Party and therefore increased counterparty risk for the Pledgor, especially for collateral not held in a segregated account, it is important to be as prompt as possible when processing substitution requests. Also, if substitutions are not processed within a reasonable timeframe, the substitution can fail or a sale of the asset that is being recalled could fail, and both can be costly for the counterparties involved.

Although T+0 requests should be accommodated, it is recommended to give anticipated substitutions at least T+3 business days' ahead, but T+5 days is optimal for notice in case securities are rehypothecated and it takes time for the Secured Party to get the asset back. However, the Pledgor has the right to receive back the security within a reasonable timeframe and should not change their procedure if their counterparty rehypothecates collateral posted. This means that parties who rehypothecate must have good records and processes for recalling collateral for substitutions.

Some time-sensitive circumstances to consider are:

- A Central Security Depository does not allow securities to be sold on the day of maturity
- Different Local Business Day/holiday calendars for Pledgor, Secured Party, or central bank/transfer agents
- Time zones for settlement processing, both by the counterparty's operations and also the settlement location
- If the Secured Party rehypothecated the security that is being substituted

If a substitution is not processed on T, unless otherwise specified, the request will stay open and not expire until either complete or updated communication has been received to cancel or change the substitution request.

For substitutions that are being initiated due to an upcoming coupon or dividend payment, it is imperative to have it processed prior to the payment date because some Eligible Collateral Schedules ("ECSs") do not accommodate for recalls of such payments or there may not be cash interest terms within the ECS. This means any cash delivered for a coupon or dividend left in the collateral account would not be earning interest for the Pledgor.

4.4: Bulk Substitutions

Bulk substitutions can be defined as:

(i) when more than one security is being recalled and/or replaced between parties, or
(ii) when a specific CUSIP or ISIN is being recalled and/or replaced across multiple legal entities.

Bulk substitutions can be an operationally burdensome process, and care should be taken when requesting bulk substitutions to a counterparty or multiple counterparties, including:

- Requesting the substitutions well before relevant cut-off times, and with advance notice, as recommended above, especially if the posted asset was rehypothecated and lead time is needed along the chain
- Coordinating with repo or sec lending desk, if necessary
- Ensuring the specific security requested to be recalled is returned (some firms must receive back the same exact CUSIP or ISIN, not of equal value or a "similar security;" This requirement is usually stated within the collateral documentation)

Bulk substitutions usually require real-time manual oversight to ensure that all incoming collateral has been received before any recalled collateral is returned. With direct communication between counterparties, partial substitutions (2 out of 3 securities, as an example) may be returned if the collateral value is sufficient.

4.5: Substitution Fails

Fails of any type, whether for posting collateral or managing substitutions can cause operational risks and costly charges. And, if a firm or its counterparty is rehypothecating collateral or needs to sell an asset that has been used as collateral and the substitution request fails, it can be a costly transaction. Substitution fails should be tracked carefully with real-time availability of settlement details along with daily reports.

Escalation procedures should be in place, involving senior management in collateral operations, counterparty risk management, and the front office to ensure that any trends with counterparties failing to return collateral as part of a substitution request is well-communicated as such failures could be a sign of increasing counterparty credit risk.

It is important that KYC procedures have been followed to ensure that collateral proceeds are not subject to any adverse ramifications, such as tax withholdings on the cash proceeds, standard settlement instructions not being in place for cash, cash being ineligible, or a lack of defined cash interest terms.

4.6: Workflows

In recent times, as an effort to streamline substitutions, there are automated workflows offered by third party vendors for both Variation Margin and Initial Margin, such as triparty custodians and technology providers' substitution workflows. Currently, the vast number of substitution requests are initiated/confirmed via email.

When implementing these automated workflows, some considerations should include:

- Is rehypothecation needed to source collateral?
- Is the workflow an improvement for your firm AND your counterparties?
- Is your collateral management technology vendor connected to your third-party substitution workflow automation vendor?
- What needs to be included in Service Level Agreements (SLAs) with administrators, vendors, and/or custodians?
- Will the automated workflow result in a new and different workflow that is fully beneficial for your firm, or will it benefit one area and add challenges for another?

It is important that firms have a process to synchronize settlement messages with their custodians so that collateral is not released until the substituted collateral is received: "Don't Give Until You Get."

4.7: Reports

To reduce the time constraints for substitutions related to known events, such as maturities, dividends, or coupons, parties should run frequent reports, including upcoming maturity dates and coupon payments for bonds, payment factor updates for mortgage-backed securities, and dividend payments for equities, of all securities posted out to counterparties and all collateral held from counterparties.

Downgrade watch reports are useful tools of information for the collateral management and front office teams to use before initiating a substitution or before consenting to a substitution request. Having this information flagged automatically within trading and collateral management systems would be beneficial.

These reports should then flag users to initiate either proposal or one-legged substitution communication (i) to counterparties regarding securities with upcoming maturities, etc. currently posted to counterparties (ii) and any substitution requests for collateral posted by counterparties that need to be replaced.

4.8: Suggested Operational Practices For Substitutions

Definition of Suggested Operational Practices Table

SOP (Suggested Operational Practice) #	Unique reference number assigned to each consideration in the document
Process or Background	High level description of each minimum consideration
Minimum Consideration Description	Recommended business and technology considerations required to comply with new margin rules

- For purposes of these SOPs, it is to be assumed that all collateral to be substituted is eligible per the Eligible Collateral Schedules.
- For bulk substitutions for the same security or cash currency/ies across multiple accounts, each is considered its own transaction for processing purposes.

Pledgor Initiated Substitution Request (single security or cash currency/ies)*

SOP#	Process or Background	Minimum Consideration Description
SOP1	Pledgor: Communicate Substitution Request by Pledgor to Receiver	Ensure that communication is sent to appropriate counterparty contact or team. Include all relevant information, such as collateral value, CUSIP, currency, and date requested to be returned.
SOP2	Receiver: Acknowledge Receipt of Substitution Request by Receiver to Pledgor and Consent to collateral to be received.	Ensure that communication is sent to appropriate counterparty contact or team. If the deadline requested cannot be accommodated, ensure this is communicated as soon as possible.
SOP3	Pledgor: Send replacement collateral to Receiver	Ensure the collateral value is equal or greater than collateral being returned.
SOP4	Receiver: Send substituted collateral to Pledgor	Use SWIFT settlement messages, as appropriate (cash/securities).
SOP5	Custodian: EOD Inventory Report	Include collateral held as of EOD.

Secured Party Initiated Substitution Proposal/One-Legged Substitution

SOP#	Process or Background	Minimum Consideration Description
SOP6	Receiver: Communicate Substitution Request by Receiver to Pledgor	Ensure that communication is sent to appropriate counterparty contact or team. Include all relevant information, such as collateral value, CUSIP, currency, and date requested to be substituted.
SOP7	Pledgor: Acknowledge Receipt of Substitution Request by Pledgor to Receiver and Consent to collateral to be received.	Ensure that communication is sent to appropriate counterparty contact or team.
SOP8	Pledgor: Send replacement collateral to Receiver	Ensure the collateral value is equal or greater than collateral being returned.
SOP9	Pledgor: Communicate Substitution Request by Pledgor to Receiver	Ensure that communication is sent to appropriate counterparty contact or team. Include all relevant information, such as collateral value, CUSIP, currency, and date requested to be returned.
SOP10	Receiver: Acknowledge Receipt of Substitution Request by Receiver to Pledgor	Ensure that communication is sent to appropriate counterparty contact or team. If the deadline requested cannot be accommodated, ensure this is communicated as soon as possible.
SOP11	Pledgor: Send replacement collateral to Receiver	Ensure the collateral value is equal or greater than collateral being returned.
SOP12	Receiver: Send substituted collateral to Pledgor	Use SWIFT settlement messages, as appropriate (cash/securities).
SOP13	Custodian: EOD Inventory Report	Include collateral held as of EOD.

Bulk Substitution Request (Multiple securities/cash)

SOP#	Process or Background	Minimum Consideration Description
SOP14	Pledgor: Communicate Substitution Request by Pledgor to Receiver	Ensure that communication is sent to appropriate counterparty contact or team. Include all relevant information, such as collateral value, CUSIP/s, currency/ies, and date requested to be returned.
SOP15	Receiver: Acknowledge Receipt of Substitution Request by Receiver to Pledgor and Consent to collateral to be received.	Ensure that communication is sent to appropriate counterparty contact or team. If the deadline requested cannot be accommodated, ensure this is communicated as soon as possible.
SOP16	Pledgor: Send replacement collateral to Receiver	Ensure the collateral value is equal or greater than collateral being returned.
SOP17	Receiver: Send substituted collateral to Pledgor	Use SWIFT settlement messages, as appropriate (cash/securities).
SOP18	Custodian: EOD Inventory Report	Include collateral held as of EOD.
SOP19	Pledgor and Receiver: Communicate Status Updates	Ensure that all collateral to be received by Receiver is settled before Receiver sends collateral to be returned to Pledgor. If necessary, communicate any updates or changes based on a partial settlement and partial return.

4.9: Glossary of Terms

Secured Party Initiated Substitution Proposal/One-Legged Substitution: Communication from a Secured Party to a Pledgor, suggesting collateral that is posted be substituted.

Recall/Return: Collateral to be sent back to the Pledgor from the Secured Party

Section 5 – Dispute Mitigation

Introduction

Managing margin calls and collateral requirement disputes effectively will mitigate uncollateralized counterparty risk, and the regulatory requirements associated with VM and IM have increased the need for collateral-related portfolio reconciliation and dispute mitigation programs. The initial process to mitigate disputes is to maintain good records and reconcile data regularly, and this requires a streamlined program that includes governance, reporting and technology.

Portfolio reconciliation is the proactive process of ensuring trade details/exposures and collateral balances remain aligned between counterparties in order to highlight discrepancies that need to be addressed to prevent margin call disputes. Dispute resolution in the collateral process is triggered by a margin call dispute and involves a process to bring accounts back in line to resolve the dispute.

5.1: Portfolio Reconciliation

Portfolio reconciliation is a key function within collateral management that helps the resolution of discrepancies between counterparties prior to disputed margin calls. However, there are challenges associated with instituting a portfolio reconciliation process to support collateral management efficiency. Without an automated in-house or vendor platform, some issues may only come to light when counterparties have a margin call dispute. Manual processes make it more challenging for firms to effectively manage their exposure to counterparties by adding time and inefficiencies to checks and controls processes. Organizations might reconcile trade count and mark-to-market exposures without expanding the reconciliation beyond the basic fields. In addition, without a standardized report or system to enable normalization, it can be very time-consuming to reformat data prior to reconciling.

Moreover, increased volatility and uncertainty can result in increases in margin call and dispute volumes which can put additional focus on business-as-usual collateral management-related functions.

5.2: Collateral Dispute Drivers

In the lifecycle of a dispute, there are two key stages: proactive identification and reactive management. Proactive dispute identification occurs prior to a margin call being sent to counterparties (i.e., before a dispute arises). Reactive dispute management begins when a dispute has been initiated by one of the parties.

In either case, the dispute management lifecycle begins by identifying root causes.

Disputes arise from various issues, such as:

- differences in valuation of the underlying positions;
- collateral discrepancies;
- trade population mismatches, such as trade misallocations to wrong legal entity/client account;
- misinterpretation of terms within collateral agreements; and
- IA and cashflow differences;

5.3: Governance Framework

It is important to establish a governance framework for the dispute management process. All firms should consider establishing collateral policies and procedures that address how to manage disputes, internal and external auditing parameters, reporting requirements and remediating disputes. Governance and internal and external auditing details should be included in the policy, drawing attention to controls, escalation processes, and internal and regulatory reporting.

5.4: Establish Dispute Thresholds

Set thresholds on repeated/expected disputes to prioritize investigations. Firms may want to establish thresholds on repeated disputes. If there are known margin calculation/risk sensitivity methodology differences, firms could put in place procedures to reconcile the account only if it breaches a predetermined threshold to avoid continuous reconciliation of the same issue.

5.5: Leverage Industry Utilities, Implementing Automation, and Technology

Organizations that are still manually processing reconciliations could reduce or eliminate manual reconciliations by leveraging an industry utility and implementing automation.

With the use of utilities, firms could integrate their internal processes and platform to automatically feed results into a margin system. The dispute root cause comment would be visible and consistently displayed to all affected parties in the margin system without having to look at multiple platforms.

Automating the process with a similar workflow to other counterparties that is scalable for the industry may assist with dispute management and reconciliations, increasing efficiency in determining the root cause of variance and leading to a quicker resolution of the disputed call.

Firms can leverage emerging automation technologies to proactively identify disputes as source system data is consumed by the collateral platform. Proactive identification looks for historical patterns and previous-day disputes prior to margin call issuance.

Collateral-related disputes may be decreased or even eliminated and related regulatory reporting burdens may be reduced if both parties adopt a single source of truth or a golden source for documents, trades and margin events.

5.6: Develop Standardized Dispute Reporting

Firms that do not currently or will not use a portfolio reconciliation utility to decrease collateral-related disputes could contribute to the development of an industry standard dispute report that is based on standardized data fields. This could easily be used to reconcile accounts using internal manual reconciliation tools, as well as external utilities.

ISDA Resources:

- Portfolio Reconciliation, Dispute Management, and Reporting SOP, located on the ISDA Margin InfoHub Collateral Management SOP page
- ISDA Collateral Management Transformation Toolkit: Portfolio Reconciliation and Dispute Resolution
- Triparty and Third-Party Suggested Operational Practice

Section 6 - Eligible Collateral

Introduction

Managing eligible collateral is an important aspect of collateral management operations. Referencing pre-Regulatory VM, IA, or IM CSAs/CSDs or the more prescribed details of regulatory requirements due to global UMR and matching collateral that is available with eligible collateral listed in Eligible Collateral Schedules ("ECS") and CSAs/CSDs is paramount to mitigating counterparty risk management and operational efficiencies.

6.1: Managing CSA/CSD and Eligible Collateral Schedule Documentation

Documenting the eligible collateral details within the CSA/CSD with counterparties and, if relevant with a triparty provider, can be a resource-intensive and time-consuming process. It is important to ensure each counterparty and their respective regulatory regimes are considered along with each entity's counterparty risk management parameters.

Using electronic means, either by a third-party provider or via a counterparty's or triparty provider's onboarding solution, can reduce the manual process of email correspondence. Using digital documentation methods can improve the onboarding process and reduce operational risks with manual inputs to collateral management and compliance systems.

In addition, using industry standards, such as the Common Domain Model, to digitally represent eligible collateral may reduce disputes and misinterpretation of collateral posted and received.

6.2: Calculating Haircuts

Both counterparties' risk management parameters and regulatory regime requirements can dictate the haircut to be applied to posted collateral. Highly liquid collateral will have a lower haircut and a less liquid type of collateral will have a higher haircut.

Operating systems need to be efficient and consistent with the calculation of such haircuts at time of affirmation and also at time of daily valuation.

6.3: Calculating and Monitoring Concentration and Wrong-way Risk Limits

Whether to meet counterparty risk management parameters or regulatory regime requirements, entities need to consider concentration and wrong-way risk limits when calculating collateral values. For example, an entity may limit the percentage of collateral that may be posted from a specific industry or geographic region which is a concentration limit. Wrong-way risk limits prevent entities from posting collateral that is issued by their own institution.

Although it should be confirmed by both counterparties and, if relevant, the triparty provider, upon onboarding the relationship (and documented accordingly), concentration limits and wrong-way risk limits should be calculated after the respective haircut is applied.

Both counterparties should monitor concentration and wrong-way risks as part of their daily routine, including when making and accepting collateral proposals and as a general check of their held and posted positions.

6.4: Managing Eligible Collateral Inventory

In order to manage eligible collateral inventory efficiently, whether measuring based on liquidity, capital, or P/L metrics, collateral inventory data must be readily available and easily transmitted to necessary departments, such as Treasury, the front office, middle office, and specifically settlements. Whether the collateral management function is centralized for all collateralized processes or siloed by product, settlement status and position reporting is imperative to optimal collateral inventory management.

ISDA Resource:

- Consensus List for Operational Implementation of Uncleared Margin

Section 7 - Settlement of Call

Introduction

In order to settle margin calls, it is important to ensure that appropriate procedures and controls are in place to ensure timely and accurate instruction of collateral movements and to minimize counterparty and custodian risk. There are two processes for settlement of a margin call: a third-party custodian (that may or may not provide segregation), and a triparty custodian that will provide segregation.

7.1: Timing of Instructions for the Settlement of Collateral Movements

Once the collateral type to be delivered has been agreed by both parties, settlement instructions for collateral movements should be issued, including explicit instructions for both deliveries and receipts of collateral, regardless of whether cash or securities are to be settled. Automation should continue, when possible, from margin call to response/affirmation, and then with settlement and reporting from the custodian to both the pledgor and secured party.

Procedures should be in place to ensure that instructions for the settlement of collateral movements are affected once the collateral to be delivered has been agreed by both parties. This may involve the release of instructions directly from collateral systems linked to payment systems or the provision of settlement instructions to an independent settlement function for execution.

Instructions should be input to the appropriate settlement systems for both the receipt and the delivery of securities to facilitate matching between both parties to the transfer.

For securities collateral, the pledgor must send a deliver-free settlement instruction message to its custodian while the pledgee must send a receive-free settlement instruction message to its custodian.

For cash collateral, the pledgor must send a payment settlement instruction message to its custodian while the pledgee should send a notice-to-receive message to its custodian; some pledgee custodians will reject incoming cash if they haven't received a matching notice-to-receive message from the pledgee, while other pledgee custodians will accept incoming cash even if they haven't received a notice-to-receive msg from the pledgee.

7.2: Triparty Custodian/Provider

The triparty provider carries out other activities, including validating eligibility, monitoring concentration limits, applying haircuts, collateral valuation, optimization, substitutions, automated settlement of collateral from the pledgor's own account (called the "longbox") to the segregated account, and reporting.

Counterparties should send their RQV via electronic messaging such as a custodian portal, SWIFT message or utility provider.

7.3: Third Party Custodian

In contrast to the triparty structure, the pledgor, its manager, or an administrator values the collateral, selects the collateral to be pledged along with confirming eligibility and concentration limits, attributes necessary haircuts and provides settlement instructions to the custodian. The custodian only provides settlement, segregation, and reporting services.

7.4: Reconciliation of Collateral Balances

Where payments are effected in a settlements/payment system which is not embedded within the collateral system, a reconciliation of collateral balances should be performed between the systems on at least a daily basis, including counterparties and custodians.

A reconciliation of collateral balances should be performed at least daily where there is no direct link between the collateral system and the appropriate collateral movement settlement system. All discrepancies should be investigated and corrected promptly.

7.5: Return of Collateral Balance if under MTA

The collateral balance should be returned whenever the exposed party has collateral pledged out.

In the event that exposure between two parties changes direction, and the party previously receiving collateral is now exposed, the full balance should be returned to the pledging party regardless of the Minimum Transfer Amount (MTA.) MTA and rounding amounts do not apply in this scenario.

7.6: Return of Collateral Balance from Segregated Account

When a pledgor requests the collateral balance to be returned from a segregated account or an account established on behalf of the secured party, the secured party may be required to provide communication to the custodian to allow the release of collateral back to the pledgor. This may be particularly relevant to regulatory IM under certain UMR regimes.

As detailed in the ACA between the two counterparties and the custodian, procedures to allow for the release of collateral from the segregated account established on behalf of the secured party back to the pledgor will be included.

There are three models that can be used to process the release of the collateral: dual authorization, single authorization, and a utility model (can be dual or single). It is strongly encouraged to use automated messaging rather than manual processing.

7.7: Reporting: Status Updates, EOD Activity and EOD Positions

Coordinating automated collateral settlement data, such as transfer/settlement updates, End of Day ("EOD") Activity Reports, and EOD Positions is important for optimizing collateral inventory, reducing manual operations, and managing custodian risk.

Status updates should be sent by custodians to the pledgor and pledgee in as real time as possible to help prevent collateral settlement fails before EOD.

EOD Activity Reports and EOD Position Reports should be sent by the custodian to the pledgor and pledgee as close to the end of business day as possible, considering settlement locations of securities pledged, substituted, and returned.

ISDA Resources:

- ISDA Collateral Management Transformation Toolkit: Collateral Settlement Automation
- Triparty and Third-Party SOP, located on the ISDA Margin InfoHub Collateral Management SOP page
- Cash as IM To Be Reinvested into a MMF SOP, located on the ISDA Margin InfoHub

Section 8 - Collateral Fails

Introduction

In the event that an agreed-upon collateral transfer is not settled by the collateral transfer date, it is important that all relevant parties are informed, and that there is a procedure in place to quickly resolve any issues. The counterparty risk associated with failed collateral transfers will be mitigated as quickly as possible if both parties have well-defined escalation points and sufficient resources to address the problem.

Identifying the cause of failed transfers and implementing protocols to resolve systematic issues leading to failed transfers will ultimately reduce the total number of fails in the market.

8.1: Identification

Systems and procedures should be in place to actively monitor settlement status of all forms of collateral transfers.

SWIFT or other electronic communication methods can be utilized to automatically update settlement status on collateral transfers. Fail reports generated by these systems should be actively reviewed by a firm's settlements team. In the absence of an electronic communication method, manual procedures should be implemented to gather settlement status information. Considering the location of settlement, custodians should be encouraged to provide information for failed transactions on as real-time basis as possible. This information should be consolidated and reviewed by the firm's settlements team.

8.2: Notifications

Once a failed collateral transaction has been identified, the party that has identified the failed collateral delivery should promptly notify the other to allow ample time to resolve the issue.

Both parties should be aware of a failed transaction if the proper identification steps are in place. However, the party that has failed to receive collateral should advise the party that has failed to deliver to ensure that appropriate steps to resolve the fail have been initiated. To ensure that the correct transaction is investigated, the notifying party should supply, at a minimum, the following information: Account Name, Security ID (or cash), and Quantity. If an electronic or automated process is used, include the transaction ID as well. Also, once identified, pending settlements should be noted on outgoing margin calls.

ACAs include reporting and communication provisions enabling the secured party to monitor collateral segregated on its behalf. This communication type defined in the agreement should allow the secured party to easily confirm that the agreed upon transaction has been processed. In the event that a transaction is not processed, the pledging party is responsible for addressing the deficiency, and having the custodian advise the beneficiary immediately upon completion.

8.3: Resolution Timeframe

Failed collateral transactions should be resolved on the day they are identified or the next available settlement date determined by market settlement cycles (excluding JGB or Euroclear transfers).

Once a fail is identified, settlement teams should work to resolve the problem as soon as possible. If the sending party's movement was not recognized[3], settlement instructions should be exchanged and re-verified. The cause of any recurring settlement issue (incorrect SSI, any settlement flag, problems with custodians/cage/longbox, etc.) should be investigated, and steps should be taken to eliminate these issues going forward.

8.4: Escalation and Reporting

Failed collateral settlements should be recorded on an end of day fails report. This report should be distributed to operations managers and credit officers with escalation procedures in place to address aged fail items.

All failed settlements should be listed on a system-generated fails report available at the EOD.

A failed collateral movement may constitute an event of default. A settlement fail may be an early warning of counterparty distress, and if appropriately notified to the failing counterparty, may initiate the process that ultimately leads to termination of swaps under the ISDA Master Agreement.

8.5: Treasury Market Practice Group ("TMPG") Fails Charge Handling

Fails Charges, assessed when one party fails to deliver a covered security under a collateral agreement, should be similar to those parties who fail to deliver as a result of a failure to deliver by another party. As a general principle, although SIFMA's TMPG Fails Charge regime does not technically cover the OTC derivative market, it is the practice of that market to honor the same principles and standards on a voluntary basis.

The government bond cash securities market is interconnected with other markets in which margin calls result in the free-of-payment movement of government securities collateral. In certain government bond cash securities markets, it is convention for a party failing to make delivery of a security to pay a Fails Charge to the other party (for example, under the SIFMA Treasury Market Practices Group "Fail Charge Trading Practice" in the US); however, free deliveries of securities as collateral are typically excluded from such requirements. Where securities cross from one market to the other, this creates a disparity between markets that can lead to a party not at fault for a failed delivery having to pay a Fails Charge to their counterparty in the cash securities market, but being unable to reclaim this from their counterparty in an exempt collateralized market. This disparity is an undesirable disconnect between markets and leads to the cost of fails being inappropriately borne by parties not at fault. Therefore, where this situation arises under an ISDA CSA/CSD or any other agreement including clearing agreements, all parties should voluntarily honor Fails Charge claims, subject to the detailed provisions below Fails Charges as defined by the TMPG and SIFMA (commonly known as "TMPG Fails Charges") that are assessed when one party fails to deliver a covered security to another party.

[3] Sometimes referred to as a "DK" or "Don't Know" rejection of a movement by a receiving institution.

In spirit, Fails Charges were effected to penalize parties failing to delivery U.S. Treasury securities and thus making that market function inefficient. Fails Charges, assessed when one party fails to deliver a covered security under a collateral agreement, should be a wash to those parties who fail to deliver as a result of a failure to deliver by another party. Within the TMPG/SIFMA "Fails Charge Trading Practice" document, securities that are delivered free of payment, such as the delivery of U.S. Treasuries for margin purposes, are specifically exempted. However, to the extent one party delivers a security free of payment to another under a collateral agreement, and that subsequent party fails to deliver the security onwards and is claimed for a Fails Charge under TMPG as a result, the original party failing to deliver the collateral should honor a pass-through claim of the TMPG Fails Charge. The amount of a claim to be cross-honored under the collateral agreement shall not exceed the upstream claim amount.

The decision of one party to honor a claim as a result of a TMPG charge is subject to the determination of the "reasonability" of that claim.

In adopting this SOP, it is not the intent that collateral under ISDA CSAs/CSD should become generally subject to the requirements of the TMPG/SIFMA "Fails Charge Trading Practice" document or any other general requirements relating to cash securities markets.

ISDA Resource:

- Notice of Exclusive Control/Pledgor Access Notice Workflow, located on the ISDA Margin InfoHub Collateral Management SOP page

Section 9 - Assignments

Introduction

When an assignment occurs, exposure on the applicable trade moves from one counterparty (pledgor) to another (secured party), while the exposure for the remaining party is unchanged and simply moves from pledgor to secured party. Collateral requirements shift from pledgor CSA/CSD to secured party CSA/CSD. These relevant exposure moves occur one business day after the Novation Trade Date. Effective Date of the underlying transaction is irrelevant for purposes of collateral.

9.1: Pledgor/Transferor/Delivering Party

By stepping out of the trade, the pledgor, also known as a transferor or delivering party no longer has any collateralized exposure to the remaining party as of the Novation Effective Date. All collateralized exposure related to the trade in question should be removed from the portfolio of the pledgor as of the Novation Effective Date plus one.

As an SOP, the settlement fee agreed upon as part of an assignment should be collateralized between the pledgor and the secured party, also known as the transferee or pledgee or receiving party, until the applicable settlement date. If the pledgor removes its position from the portfolio of the remaining party on Novation Effective Date plus one, the exposure related to the settlement fee should remain collateralized with the Pledgee until the applicable settlement date.

9.2: Pledgee/Transferee/Secured Party/Receiving Party

The secured party stepping into the trade will collateralize the full exposure of the swap with the remaining party on trade date plus one of the assignment, subject to its CSA/CSD with the remaining party.

The settlement/fee related to the assignment is collateralized between the pledgee and the secured party until the applicable settlement date.
The transferee will continue to collateralize its new position versus the remaining party following current market standards.

9.3: Remaining Party

The remaining party simply moves the exposure from the pledgor to the secured party. Their exposure on the transaction does not change in an assignment.

The consistent collateralization of the settlement/fee between the pledgor and secured party will result in more accurate calls between the parties. The pledgor should not be hesitant to remove its trades, as its settlement risk will be fully collateralized versus the secured party.

Section 10 - New Trades / Unwinds / Credit Events / Compressions

Introduction

The following section outlines suggested operational practices for collateralizing each of the trade events listed.

10.1: New Trades

All new trades are to be included in the collateral calculation on trade date plus one. All upfront fees on new trades should be included in the calculation until settlement date.

All new trades, upfront fees, deferred premium, and corresponding economics should be included in the relevant collateralized portfolios on trade date plus one regardless of effective date to align collateral process with the exposure resulting from the new trade. Parties should not be able to claim that deals are not included in the collateralized deal population on Trade Date plus one because their effective date is Trade Date plus two. All fees referenced in legal documentation, as well as trade economics, should be included in overall trade valuation through settlement plus one.

In the case that one party does not recognize a new trade, all efforts should be made by the counterparty to provide evidence of the trade's existence. As firms move towards electronic confirmations, identifiers used on the relevant electronic confirmation platform should be sufficient to locate trades. For manual confirmations, Front Office correspondence would provide appropriate evidence of the trade's existence either through a direct messaging platform or trade ticket.

With respect to handling IM related to new trades, please refer to section 2 of this document.

10.2: Unwinds

Exposure related to trades that are unwound should stay in the portfolio through settlement date.

In the case of unwinds, parties should margin all fees through settlement date capturing all remaining exposure. This is consistent with the recommended handling of all fees and final payments regardless of how they were derived. Margin call differences resulting from unwinds are generally due to one party removing economics of the unwound trades from its margin calculation on the unwind date while the other drops the same trade on settlement date. After the unwind occurs, both parties should reflect fees and corresponding economic changes in their exposures in the collateralized portfolio through settlement date plus one. This includes subsequent notional and valuation implications due to partial unwinds.

As previously stated in section 2.2, in the normal course of business, with respect to terminated or matured trades where IA is calculated at the trade level and the confirmation or other relevant documentation is silent regarding the treatment of IM on matured or terminated trades, IA should be available to be returned to the pledging counterparty on the next available settlement day after termination date or maturity date, providing the CSA/CSD states a daily Valuation Date and the period between expiration and settlement of the trade is not prolonged. When in doubt, parties should mutually agree IA handling in the event of an unwind or termination.

10.3: Credit Events

Exposure related to trades that are subject to a Credit Event should remain in the collateralized portfolio through settlement date.

Similar to unwound trades, credit events can cause margin call differences by one party dropping the impacted trades from the collateral calculation on auction date while the other collateralizes through settlement date. In addition, if a trade is live at the time of an applicable Credit Event and then subsequently matures before Auction Date, it should remain in the portfolio until settlement date as the Credit Event occurred before the Maturity Date.

10.4: Trade Compression

Trades that are subject to industry-wide trade reducing events should be removed from the portfolio on the day the trade-reducing event occurs. This should be in agreement with governing documentation for the applicable risk reducing process.

All unwound trades should be removed from the portfolio on the execution date of the applicable event. All replacement trades should be booked according to the relevant compression guidelines and subsequent exposure for replacement trades should be included in collateralized exposure on the date following execution.

Section 11 - Rehypothecation

Introduction

The granting of rehypothecation rights of collateral under the ISDA CSA/CSD are standard elements of collateralization where appropriate and permitted by applicable law. The decision to grant rehypothecation rights, usually on a reciprocal basis, is a decision made by both sides to the agreement.

11.1: Tracking of Securities Eligible for Rehypothecation

It is the obligation of the secured party to ensure that all assets, whether eligible for rehypothecation or not, are tracked in accordance with the agreed terms of the ISDA CSA/CSD. Where appropriate this obligation can be assigned to an agent, but responsibility in a bilateral agreement resides with the secured party. The correct reuse rights of secured assets should be checked regularly and Client money/asset rules applied where applicable.

A critical element of the collateral process, especially involving the pledging of securities, is the ability to differentiate between assets that are delivered by a pledgor that has granted rehypothecation rights and those that have been delivered without those rights. If this differentiation is not in place, the risk is that assets may be inadvertently reused inappropriately.

11.2: Reuse of Securities in Appropriately Aligned Settlement Periods

To avoid settlement fails where rehypothecation rights are granted, it is advisable to ensure that the settlement convention of the market where the assets are being reused is aligned with the settlement convention of the ISDA CSA/CSD.

The ability to reuse assets, whether through rehypothecation or title transfer rights, opens up the possibility of taking those assets from one set of settlement rules, very specific to the OTC derivatives market, into shorter or longer settlement and recall environments thereby increasing the opportunity for a settlement fail.

It is therefore advisable that the settlement convention of the market where the assets are being reused is aligned with the settlement convention of the ISDA CSA/CSD.

Section 12 - Interest Processing

Introduction

All collateral cash balances pledged should earn accrued interest as agreed and defined under the terms of the ISDA CSA/CSD. As mentioned in the section 3 – Margin Call Issuance and Response, greater automation of the collateral management process via electronic messaging will standardize the delivery method, content and formatting of margin messaging and interest processing. This will also improve the prompt processing of interest as well.

12.1: Settling Interest (Standard Monthly Interest Calculation)

Interest on the collateral balance is accrued on a daily basis using the CSA/CSD agreed interest rate, spread and on a simple or compounding basis (by calendar or business day).

Interest accrued is typically transferred monthly to the applicable party under most CSAs/CSDs. Notice of the amount to be paid should be sent on the first business day of the month with actual interest settlement occurring as mutually agreed by the parties. Delivery of the interest amount will be made to the pledgor's original settlement instructions unless otherwise specified.

It is also possible to capitalize the accrued interest where the amount is an adjustment to the credit support amount, this requires no interest settlement. Capitalization reduces the post-month-end interest processing burden on firms, and thus reduces operational risk; it also ensures that interest is compounded into the credit support amount which is then more accurately calculated because it does not ignore accrued but unpaid interest, thus reducing credit risk for both parties.

It is a suggested operational practice for the party receiving interest to raise any differences in the amount received within 30 days of receipt.

If the amount of interest is very small, the two parties may choose to either write off the accrued interest or roll it over to the next interest period.

12.2: Negative Interest Rates

ISDA has published updated versions of the interest rate provisions for cash collateral.[4] In summary, these are designed to clarify that where the relevant floating rate index (e.g., OIS rates such as SOFR, [EONIA], SONIA, etc.) sets in the market at a negative level, or where a negative spread generates a negative rate, then this negative rate should be used in the Interest Rate and Interest Amount calculations. In 2015, ISDA stated its strong support for the use of market rates, whether positive or negative, for over-the-counter derivatives transactions, reflecting best practice in broader financial markets.[5]

Based on the terms agreed in their CSAs/CSDs, parties should either settle these negative interest amounts in the reverse direction to normal interest settlement or alternatively compound the negative interest into the credit support balance under the CSA/CSD, decrementing it rather than incrementing it, as would be the normal case.

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[4] The ISDA 2014 Collateral Agreement Negative Interest Protocol allows parties to amend existing CSAs to provide explicitly for how negative interest is calculated and paid. The 2016 ISDA Variation Margin CSAs update the prior CSA terms to include additional options for the payment or accrual of negative interest amounts.

[5] ISDA Statement on Negative Interest Rates and the ISDA 2014 Collateral Agreement Negative Interest Protocol

Where parties post collateral into a segregated account, the terms of accrual of interest on any cash posted into a segregated account will depend on the posting party's arrangements with the custodian bank. Interest amount terms therefore do not appear in IM bilateral documentation.

12.3: Including Accrued Interest upon Final Return of Collateral

When closing a client relationship and returning collateral, the full amount of collateral should be returned, including any accrued interest.

To avoid having any future payable amount at the end of a client relationship, when returning any collateral balance in full, all interest (capitalized and non-capitalized) should be included at the same time.

12.4: Interest Should be Calculated Using a Standard Formula

Absent specific wording to the contrary in the ISDA CSA/CSD, interest should be calculated using a standard formula. The formula should be (Principal Balance * (Interest Rate/100))/(360 or 365) * number of days relevant to the currency of collateral held.

Market practice is that interest should be calculated using actual days. The formula should be (Principal Balance * (Interest Rate/100))/(360 or 365) * number of days relevant to the currency of collateral held. All decimals should be rounded to 2 places to avoid rounding issues.

Interest is typically calculated on a full month basis but some CSAs/CSDs have been written with non-standard interest period calculations, such as interest is to be calculated to the 20th day of every month. Language should be standardized to allow interest calculations based on a full calendar month basis only. As a suggested operational practice, interest calculations should be from the first day of the month to the last day of the month, with interest accrued up to and including the last day of the month."

12.5: Client Communication

All requests for interest should include the information necessary for a client to be able to evaluate and agree to any interest amount.

Request for interest delivery should be standardized around a single electronic message format. A list of fields to include in the interest message are included in the "Standards for the Electronic Exchange of OTC Derivative Margin Calls". If the interest statement is sent via e-mail, the body of the e-mail should include the interest period, legal entity, amount of interest (payable or receivable), contact name/phone/email address and wire instructions. The interest statements should include the following data fields:

INTEREST STATEMENTS

Required Fields	Definitions
Principal	Entity issuing margin call (per CSA/CSD unless mutually agreed between parties) Examples: 1. Bank XYZ 2. ABC Capital Management Strategy 135976 3. DEF Pension Fund 123b
Principal Reference ID	Legal Entity Identifier of counterparty issuing margin call
Counterparty Name	Entity to whom margin call is being issued (per CSA/CSD unless mutually agreed between parties) Examples: 1. Bank XYZ 2. ABC Capital Management Strategy 135976 3. DEF Pension Fund 123b
Counterparty Reference ID	Legal Entity Identifier of counterparty receiving margin call
Agreement Type	Defined agreement type
Call Type	The call type defines whether the interest payment is for variation, initial or netted (both variation and initial) collateral balances.
Role	Secured = Held collateral, Pledgor = Posted collateral
Interest Period Start	Date the interest period begins.
Interest Period End	Date the interest period ends.
Currency	Currency in which the interest is denominated.
Benchmark	Interest benchmark
Disbursement Type	Specifies how the interest payment will be remitted. Cash = Cash payment for a specified value date. Roll In = Interest payment is to be added to (rolled into) the collateral balance within the next period. Rollover = Interest payment is to be paid in the next period. The amount rolled over should be added to the next period's payment amount. Write-off = Interest payment is to be written off for the period; there is no interest payment obligation for the period.
Ending Collateral Balance	Collateral balance at the end of the period.

Optional Fields	Definitions
Tax Exemption Exists	Indicates if the interest statement payment amount is subject to tax withholding.
Tax Withholding Amount	Amount of tax that has been withheld from the interest statement payment amount expressed as an absolute value.
Calculation Type	Type of calculation used to accrue the interest. i.e., Compound Calendar Days or Business Days
Day Convention	Day-count-convention used to accrue the interest. 30/360 ACT/360 ACT/365.FIXED ACT/ACT.ISDA 30E/360 30E/360.ISDA
SSI	Standing settlement instructions for the interest payment.
No Action	Indicates if there is no action to be taken on the interest statement.
Daily Interest Items	List of daily interest items.

12.6: Trade Coupon Considerations

When posting securities as collateral, it is important to track maturity dates and interest coupon paying dates, and substitutions prior to these dates may be in the best interest of the pledging entity. Operational procedures should be developed to monitor and effectuate any necessary monthly or quarterly movements.

Section 13 - Custodian Reconciliation and Reporting

Introduction

In a third-party custodial relationship, an unaffiliated bank, broker dealer or other party operates under agreement with one of the two counterparties and simply provides typical custody and safekeeping services.

In a triparty custodial relationship, a bank or other party operates under a three-way contract between it and the two derivative counterparties. Among other duties, the triparty agent releases collateral to each of the counterparties subject to pre-defined conditions.

13.1: Collateral Balance Reconciliation

Where collateral movements are effected in a third party or triparty system, a reconciliation of collateral balances should be performed between the parties on a daily basis.

Where the pledged collateral balance, whether cash, securities, letter of credit etc., is held by a third party or triparty, daily balance reconciliation should be performed to ensure risk exposure is minimized.

13.2: Timing of Collateral Balance File for Reconciliation

At the close of each business day or as soon as possible thereafter, the third party or triparty system should provide, in a standardized electronic format, the information needed to effect a daily reconciliation of collateral balances.

Upon request at time of onboarding with the third-party custodian or triparty provider, at the close of each business day or as soon as possible thereafter, the third party or triparty system should provide, in a standardized electronic format, the account balance, including daily collateral movements and a breakdown of positions, for each individual client.

13.3: Format of Collateral Balance File for Reconciliation

The format of the collateral balance file for reconciliation should be standardized to maximize efficiencies in the automation of reconciliation.

The minimum collateral balance fields required for reconciliation should include the following:
Close of Business Statement Date
Custody Account Number
Collateral Identifier (ISIN, Cash Currency, Letter of Credit reference etc.)
Par Value/Original Face Amount of Security
Price
Market Value
Currency

Section 14 - Vendor and Third-Party Provider Resiliency

Introduction

As the collateral management ecosystem continues to build out efficiencies and workflow automation using mutualized solutions provided by vendors and third parties, there is a growing need to manage resiliency with those contracted services. From the due diligence and contract negotiation stage, to developing Service Level Agreements, regular testing, and then onto managing outages, there needs to be a high level of communication and documentation, especially for those processes that are required by regulation.

It is important to note that engaging with a vendor or third-party provider does not remove the regulatory requirement from the end-user firm/client of the provider.

Each firm engaging vendors will manage such communication and documentation to meet their own regulatory requirements and risk tolerances. This section of the SOP is to be used as guidance. It is important that each firm is aware and familiar with their respective regulatory requirements with respect to the collateral management process and also resiliency.

14.1: Due Diligence and Ongoing Evaluations

When conducting initial due diligence with vendor services or third-party providers, it is important to have a comprehensive list of all requirements needed, including those that will be required by regulation with the specific time parameters that will be necessary.

Although not exhaustive, below are suggestions to include in the due diligence process:

- Business continuity plans
- Geographic location back-up, especially due to weather or natural disasters, or any kind of force majeure incident
- Proof that operations are sustainable
- Cyberattack reaction plans or Cyber Incident Response Playbooks
- IT infrastructure and/or architecture, including server and data location(s)
- Access Control Management (e.g., governance/policy for access to data, roles/passwords, segregation of duties, authentication methods…)
- Application Security (code reviews, segregation of environments, use of clients' data for testing)
- Asset Management
- Cloud Security
- Network Security and threat management (anti-malware, anti-virus, intrusions, firewall, Wi-Fi set-ups)
- Cryptography and Encryption
- Data Protection and Privacy (includes data transfer rules between countries, as applicable under GDPR)
- HR Security
- Incident and Event Security
- Information Security Policies and Procedures
- Configuration Management
- Governance
- Physical and Environmental Security (includes data transfer rules between countries, as applicable under GDPR)
- Threats and vulnerabilities assessments (includes impacts that are used to determine risk)

Vendors and third-party providers will conduct regular drills or disaster recovery exercises. Those events should be documented and resulting information should be shared with clients. Clients may require any or all of the following: (i) full disclosure of all findings, (ii) a summary that redacts proprietary information, (iii) an on-site visit to the vendor, and (iv) reporting of cyber incidents to regulators and agencies.

Individual firms, or in conjunction with other firms via industry groups, should conduct thorough disaster recovery plan scenarios with their vendors or third-party providers and sub-contractors/fourth party providers for each firm involved. Poly-crisis scenarios should be considered as part of the testing, and threat awareness program as bad actors can take advantage of natural disasters or power outages for action.

Although not exhaustive, below are suggestions to include in the testing process:

- Secondary power source, including at back-up workplace locations
- Telecommunications connectivity, including back-up scenarios if primary provider is not available, including back-up workplace locations
- Data center transfers, emphasizing regional diversification
- Client support models, considering back-up workplace scenarios
- Accessibility/credentials needed for essential employees to access physical locations
- If relevant for workflow, connectivity with financial market infrastructure provider(s)
- Natural disaster vs. bad actor scenarios, including varied communication flows for each
- Maintain contact lists for all parties involved with workflow, including management and senior management
- When government, local, regional, or national, intervention would be necessary
- When regulator communication may be necessary
  During the due diligence and testing process, it is important to stress that transparent communication is expected as a foundation for any potential incidents in the future.

14.2 Fourth-Party Providers/Sub-contractors

Vendors and third-party providers should consider the following as they work with fourth party providers/sub-contractors:

- The vendor should ensure contractually that its subcontractor(s) grant the end-user firm/client the same contractual rights of access and audit as those granted by the vendor.
- The end-user firm/client may want to approve subcontractors.
- When relying on subcontractors for the service(s) provision, the vendor must ensure that they are bound by the same security requirements as those required of the vendor.
- If the vendor relies on subcontractors, the vendor must immediately inform the end-user firm/client about any planned significant changes to the subcontractors
- The vendor remains responsible for delivery of the services. Accordingly, the vendor must ensure that any subcontractor has the necessary expertise to perform the subcontracted services.
- In some countries, the vendor and its subcontractors must sign specific documents (such as “Ethical rules letter” in France) before accessing the end-user firm/client’s information systems.

Risk assessment

As part of the due diligence process and ongoing vendor/third-party evaluation, it is good practice to make an assessment of the materiality of the service, based on the scenarios of a service failure and/or a data leakage.

Although not exhaustive, below is a list of possible criteria:

- Compliance with legal and regulatory requirements
- Ability to oversee risk management of the businesses impacted by the service
- Ability to support critical businesses and workflows
- Financial implications
- Commercial/reputational risk

14.3: Contracts and Service Level Agreements

Contracts and Service Level Agreements ("SLA") will be negotiated with each provider and their client, and there may be a commercial impact to requesting specific requirements.

Contracts should be negotiated following a rigorous governance process within your firm, including operations, technology, legal and compliance team member input and review or this process may be delegated to a dedicated team overseeing third party relationships.

As technology continues to evolve and improve, contracts should be inclusive of these advancements and may need to be updated.

Although not exhaustive, below is a list of items to include or update in your third-party contracts:

- Outage clause
- Artificial Intelligence clause, including cyberattacks that can crash or manipulate data
- Cyberattack clause/incident clause
- Disconnect/reconnect to financial market infrastructure providers, if relevant to service
- Communication requirements with management, senior management, and board, balancing client transparency with potential anti-trust issues
- When relevant to scenario, fourth party assessment requirement to resume service after outage

SLAs may have varying levels or types of requirements, depending on the specific service, particularly if there is a secondary provider, or if there is a single point of failure with a vendor/third party provider.

SLAs must include various communication methods for both the vendor/third party provider and the client. If one communication method has been disabled, there must be additional options available. Also, individuals should not be used as communication contacts. Instead, clients and vendors must create, maintain, and regularly update distribution lists for mutual contact. These lists should be maintained with the vendor, not the vendor/third party provider.

Although not exhaustive, below is a list of items to include in SLAs:

- Time parameters for deliverables and notifications if outages occur. For example, if a margin call is not calculated by the contractual time, you will be notified every 30 minutes with updates.
- Percentage of accuracy for data quality and time parameters (i.e., data will be provided with xx% accuracy; service will be performed within 30 minutes of BAU expected timeframe or communicated as to why there is a delay.)

Items above should be subject to a regular reporting process, including metrics that show deviations and/or failures to comply with the SLA. In addition, a dedicated governance plan should be set up to review metrics, agree on corrective actions, and discuss evolutions of the service.

14.4: One-Day Outage

One-day outages may be due to natural disasters, infrastructure issues, or technological issues. However, a firm may not know the potential length of the outage when it first occurs. Therefore, constant communication between the client and the vendor/third party provider is imperative so that the client can implement their business continuity plans.

For example, if the outage is due to a natural disaster that will impact service for more than two hours, they may switch over to a server that is geographically located elsewhere, or a service team that is located in another time zone. In such case, although deliverables may be delayed, they can thus be met within the time parameters of the SLA.

There is a possibility that communication with regulators may be necessary, depending on the scope and impact of the outage and the time horizon of the outage, which may be based on governance plans and internal risk teams oversight. Some examples may include:

At the end of Day 1 of an unresolved outage, a governance meeting should be convened to allow firms to review the situation, factoring possibly an ETA communicated by the vendor, and agree on a high-level plan for Day 2.

There should be a firm-specific action plan that is tested and validated on a regular basis.

14.5: Two-Day Outage

A two-day outage, like a one-day outage, requires constant communication between the client and the vendor/third party provider. Unlike a one-day outage where all SLAs are met within the required time parameters, a two-day outage, for a daily service or a service that is required on that day, may require much more coordination with the vendor/third party, internal teams, and possibly regulators.

Some agreed workaround examples may include:

- Data feeds from the prior day may be used;
- Data feeds from a secondary provider may be used;
- Collateral valuation or margin calculations from the counterparty may be used, subject to credit risk assessment;
- Send margin calls via email, with risk-based ranking for priority.

Like a one-day outrage, there should be a firm-specific action plan that is tested and validated on a regular basis for a two-day outage.

If a regulatory requirement will not be met due to a single point of failure vendor/third party outage, even though the vendor or third-party provider is not the regulated entity, it is expected (but not required) that the vendor/third party will coordinate a suggested message for the clients to share, collectively, with the regulator(s).

An outage may go beyond two days but not require a permanent exit of service. In such case, ongoing communication with the vendor/third-party provider will be necessary, including legal, compliance, and possibly regulatory contacts.

14.6: Permanent Exit from Service

Vendor exits from service are usually well communicated with clients ahead of time to accommodate transition periods. However, if a vendor or third-party provider abruptly exits from service, or if a vendor or third party does not promptly resolve an issue and an end-user firm/client moves forward with terminating a service contract, there is likely to be an industry-wide disruption with other firms trying to find a way to adapt. For any service, but especially for those that are "single point of failure" services or platforms, the end-user/client should have business recovery plans in place. This may require support from operations, legal, compliance and procurement, to onboard a secondary service as soon as possible. Consider that some steps in the Business As Usual due diligence and onboarding process may need to be expedited in order to ensure regulatory compliance.

If a vendor or third-party provider that is widely used in the industry ceases to provide services, the industry may need to collaborate to form an interim solution ahead of time to address the discontinued service until end-user firms/clients put an alternative process in place.

14.7: Governance

The client should have a comprehensive governance structure that includes all internal and vendor/third-party providers and requirements, such as testing, assessments, documentation, monitoring and evaluations, reporting and oversight.

14.8: Insurance

As part of the due diligence process, both initially and at least annually, the client should require proof of insurance for business disruption for clients.

SOP Governance and Conclusion

These SOPs have been drawn up by a wide group of market industry participants over the course of several years and provide a representation of operational criteria which support derivative trading activity.

While OTC derivatives documented under ISDA Master Agreement terms are bilateral contracts, these SOPs recognize that many of the prior reconciliation SOPs have now been codified in regulation and parties should be mindful of where regulatory requirements begin and end and where parties remain free to decide between themselves suitable bilateral parameters for the reconciliations they perform.

This document will be reviewed at least annually by a group of market industry participants associated with ISDA's Collateral Initiatives, and when updates are made, the date of updates will be noted on the front cover.

While these SOPs are not intended to be obligatory nor are they intended to create or alter legal obligations, they seek to incorporate the recent regulations regarding reconciliation where appropriate and create consistency and efficiency in the market.