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**ISDA**<sup>®</sup>

International Swaps and Derivatives Association, Inc.

# **Best Practices for the OTC Derivatives Collateral Process**

June 30, 2010

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## Introduction

In June 2009, OTC derivative market participants under the auspices of ISDA (International Swaps and Derivatives Association) published the “Roadmap for Collateral Management” (Roadmap) which was a plan of action to reexamine the collateral management function based on the market events of 2008. One of the Roadmap commitments was the publication of a best practices document for collateral management by June 30, 2010. This document, the ISDA Best Practices for the OTC Derivatives Collateral Process (Best Practices for Collateral) is intended to meet that commitment.

Best Practices for Collateral is the result of the collaborative efforts of a working group of buy-side and sell-side market participants. The firms have developed and sought industry feedback on the scope and contents of this comprehensive document that provides guidance on current best practices for the collateral management process.

The harmonisation of practice between practitioners serves to mitigate risks inherent in the collateral management process and also sets expectations and standards for new entrants to the OTC market.

This document focuses on OTC derivative trades collateralized on a bi-lateral basis under the ISDA English and New York law Credit Support Annexes (CSAs) and English Law Credit Support Deed (CSD) agreed between two parties. It does not cover best practices for OTC derivatives that have been given up to central clearinghouses by clearing members on their behalf or the behalf of their clients.

## Proactive Industry Involvement

It is important to note that Best Practices for Collateral 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 Guidelines for Collateral Practitioners by ISDA’s Collateral Committee, collateral professionals have sought to improve the collateral process. Following the LTCM crisis, the first real test of

the newly-emerging collateral management process in 1999, updated guidelines were published in 2005.

Other, and more recent contributions by the industry which are referenced herein, include the 2009 Recommended Practices for Collateralized Portfolio Reconciliation, Standards for the Electronic Exchange of OTC Derivative Margin Calls, the 2010 Market Review of Bilateral Collateralization Practices and the Independent Amount Whitepaper.

The pro-active focus on industry improvement is based on continuing industry engagement and collaboration to establish a set of best of breed practices. These Best Practices for Collateral bring together elements of the above initiatives under one cover (although the underlying documents published by ISDA should remain the primary and contextual point of reference).

## Section 1 - Client On-boarding, ISDA/CSA Set Up and Long Form Confirmations

### Introduction

When on-boarding new clients onto internal 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 two to three-day turnaround.

Adherence to the established best practices will ensure that the collateral operations teams are in a position to support the collateral process as soon as trading commences following the execution of the ISDA/CSA or other trade confirmation. Both parties should ensure that adequate resources are allocated to the on-boarding process to ensure that all procedures are completed in the established timeframes.

### Best Practice 1.1: Capturing ISDA/CSA Terms on Internal Systems

#### Principle

*The terms of a newly-signed ISDA/CSA should be input into internal systems promptly after execution of the agreements or appropriately prioritized relative to expected trading activity.*

**Description**

Once a client is input into internal systems, there should be a procedure in place that enables the collateral department to access all executed agreements and verify that operational terms have been captured correctly within the collateral application.

The terms of the CSA which have been entered in 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.

**Best Practice 1.2: Exchange of Contact Information****Principle**

*General contact information for collateral operations should be included in the CSA.*

**Description**

Each institution should provide a group email address, 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.

**Best Practice 1.3: Exchanging Standard Settlement Instruction (SSI) Information****Principle**

*Standard Settlement Instructions (SSIs) should be exchanged prior to first collateral delivery.*

**Description**

Each institution should provide authenticated SSIs for all eligible collateral pools covered by the CSA. 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 or outsourced operator can provide SSIs on behalf of the client if

evidence of delegation authority is received from the client.

**Best Practice 1.4: Non-Standard Agreements****Principle**

*Any CSA or Long Form Confirmation, containing non-standard terms should be reviewed by collateral operations prior to execution.*

**Description**

If non-standard terms in a CSA 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.

**Best Practice 1.5: Use of Standardized Industry Documentation****Principle**

*Wherever possible an ISDA Master Agreement and Credit Support Annex (CSA) should be used to confirm collateral terms, if any, between counterparties. In the rare situation where trading of OTC derivative contracts is performed in advance of an ISDA/CSA being executed, the collateral terms should be specified in a Long Form Confirmation.*

**Description**

OTC derivative transactions should not be executed without a signed ISDA Master Agreement and Credit Support Annex 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.

In the absence of an ISDA/CSA, trading requiring collateralization should be documented under an ISDA Long Form Confirmation with the appropriate collateral terms included. All efforts should be made to reduce the dependency on Long Form Confirmations as the process is not scalable across the industry. In addition, any collateral terms in a Long Form Confirmation should be reviewed by legal, credit and collateral operations functions prior to trade execution to ensure each area can support the trade appropriately.

All Long Form Confirmations should state that the terms and conditions included will be superseded when the ISDA/CSA is signed. Any subsequent ISDA/CSA should include wording to the effect that this executed agreement supersedes the terms included in the Long Form Confirmation.

#### **Best Practice 1.6: Terms of the Document Principle**

*Long Form Confirms should, at a minimum, contain the standard collateral definitions (as defined in the Credit Support Annex) wherever possible.*

#### **Description**

The collateral terms included in the Long Form Confirmation should be captured in the collateral system allowing for an automated collateral call process.

## **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 (variation margin), any independent amounts (IA or initial margin) which could be applicable at a trade or portfolio level, the valuation of collateral previously held or posted, and the application of the terms of the agreement (for instance, threshold and minimum transfer amounts).

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

Adherence to the established guidelines will ensure that the collateral operations teams are in a position to consistently apply exposure calculations in accordance with both the ISDA/CSA and market conventions. This will help minimize margin disputes and ensure timely exchange of collateral amounts between the parties to the margin agreements.

#### **Best Practice 2.1: Variation Margin (MTM) and Initial Margin (IA) on New Trades Principle**

*For new trades, initial and variation margin requirements should be included in margin calculations on trade date plus 1.*

#### **Best Practice 2.2: Variation Margin (MTM) and Initial Margin (IA) on Terminated or Matured Trades Principle**

*To be added.*

#### **Description**

To be added.

#### **Best Practice 2.3: Population of Trades to be Included Principle**

*All derivative product types between two parties as defined by the ISDA CSA should be included in the collateral call process.*

#### **Description**

Any trade that matches a derivative product type that is listed in the CSA should be included in the collateral calculation used to determine whether or not a collateral exchange is required. CSAs can be ambiguous with respect to foreign exchange trades and lack differentiation between spots and forwards. Best practice should be to define explicitly in the CSA any product type (for example FX Spot) that is to be excluded from the collateral calculation.

#### **Best Practice 2.4: Value of Collateral Principle**

*Collateral should be revalued daily beginning on valuation date with haircuts applied consistent with the CSA. Eligible Collateral should be clearly defined in the CSA. Securities collateral should be valued including accrued interest while cash collateral values should generally exclude accrued interest. Reporting should be available to enable regular reconciliation of collateral amounts between the parties to assist with dispute resolution.*

#### **Description**

Collateral should be maintained at the ISIN/CUSIP level with market recognized pricing feeds to enable daily recalculation of collateral values at each day's closing values. Current (post haircut) collateral values should be included in margin calls.

## Section 3 - Call Issuance and Response

### Introduction

The move towards greater automation via electronic messaging will standardize the delivery method, content and formatting and improve the timeliness and security of call issuance and response.

The sequence, content, timing and frequency of messages to be electronically exchanged in the margin call process has been separately defined in the ISDA document, "[Standards for the Electronic Exchange of OTC Derivative Margin Calls](#)" published in November 2009.

Set out below are the best practices associated with non-electronic margin call issuance and response as well as the importance of data integrity to the overall process.

### Best Practice 3.1: Data Availability

#### Principle

*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.*

#### Description

It is critical to establish firm cut offs for delivery and receipt of trade level details into collateral 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 independent amount 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; however, it is preferable for a call to be issued as early as operationally possible.

### Best Practice 3.2: Data Integrity

#### Principle

*Collateral practitioners must 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.*

#### Description

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

For example, it is critical that completeness programs monitor and track the receipt of all files and raise warnings and highlight potential missing or incomplete data.

### Best Practice 3.3: Content for Non Electronic Exchanged Collateral Call

#### Principle

*For the issuance of non-electronic exchanged collateral calls, the following minimum standard data fields should be included:*

1. *Principal Counterparty Reference – Reference of the client issuing the margin call*
2. *Counterparty Reference – Reference of the client receiving the margin call*
3. *Valuation Date – The close of business date for which the principal counterparty is issuing the margin call*
4. *MTA – Minimum amount to pay/receive as specified in the agreement in the base currency.*
5. *Threshold – Amount of exposure a counterparty will accept before issuing a margin call in the base currency*
6. *IA – Required Credit Support, in addition to the Variation Margin, included in the MTM in the base currency*
7. *Total MTM – Net market value of the portfolio in the base currency*
8. *Margin Requirement - Value of the requested collateral transfer in the base currency*

**Best Practice 3.4: Data Validation****Principle**

*Before responding to a counterpart's call, a collateral representative should quickly verify the core data elements that make up a collateral call.*

**Description**

Parties should perform a simple mathematical check to ensure their counterpart has performed the correct mathematical calculation to arrive at a call amount.

**Best Practice 3.5: Call Response Timing****Principle**

*Generally speaking, counterparts should provide a response at latest by close of business on the day a call is received, provided settlement is call date +1. Where call issuance and settlement of collateral is same day, wherever possible, responses should be received no later than one hour prior to closing of the securities market and two hours prior to cash deadlines.*

**Description**

Parties should have the system capability and the procedural framework in place allowing for delivery of collateral within the timeframes agreed upon in the CSA. If a party has agreed a delivery and is aware that it will be late in paying, every effort should be made to notify the receiving party to avoid unnecessary loss due to positioning of funds.

**Best Practice 3.6: Content for Non Electronic Exchanged Response to Collateral Call****Principle**

*If a party is responding to a collateral call in a non-electronically exchanged message then parties should include, at a minimum, the below fields in their collateral call response:*

1. *Counterparty Reference – Reference of the client responding to the margin call*
2. *Indication of agreement or a full or partial dispute.*
3. *Collateral Amount – Amount of collateral agreed to and being sent*
4. *Collateral Type – e.g., EUR/USD cash or security ID and par value*

5. *Settlement Date – The business date for which the counterparty is delivering the agreed collateral*

6. *Total MTM - Net market value of the portfolio in the base currency if anything other than agreed in full*

**Best Practice 3.7: 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 on a reasonable efforts basis.*

**Description**

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.

**Best Practice 3.8: Failure to Respond****Principle**

*From time to time counterparts 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.*

**Description**

As there is clear guidance regarding the issuance of collateral 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 constitutes a failure under the terms of the CSA. A response to a validly issued collateral 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 - Settlement of Call

### Introduction

In order to settle collateral 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 risk.

#### Best Practice 4.1: Timing of Instructions for the Settlement of Collateral Movements

##### Principle

*Once the collateral type to be delivered has been agreed by both parties settlement instructions for collateral movements should be effected including both deliveries and receipts of collateral, cash and securities.*

##### Description

Procedures should be in place to ensure that instructions for the settlement of collateral movements are effected once the collateral to be delivered has been agreed by both parties. This may involve the release of instructions directly from collateral systems linked directly 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. This principle equally applies to the movement of cash collateral, though matching is not required.

#### Best Practice 4.2: Reconciliation of Collateral Balances

##### Principle

*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 a daily basis.*

##### Description

A daily reconciliation of collateral balances should be performed 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.

## Section 5 - Collateral Dispute Resolution

### Introduction

At the direction of ISDA's Board of Directors, the ISDA Collateral Committee in consultation with the ISDA Product Steering Committees, other industry associations and financial industry regulators are developing the "ISDA Collateral Dispute Resolution Procedure" (DR Procedure).

The DR Procedure is intended to provide an agreed standard industry approach for effectively dealing with disputed OTC derivative collateral calls. The [initial draft](#) of the DR Procedure was published on September 30, 2009 following extensive industry consultation and a public comment period. At the time of expected publication of this Best Practice document, the DR Procedure is undergoing additional testing and modification by industry participants ahead of an updated draft to be published by September 30<sup>th</sup>, 2010.

The following best practices are intended to be used as general guidance for the resolution collateral disputes to be further defined and enhanced by the final agreed upon DR Procedure.

#### Best Practice 5.1: Portfolio Reconciliations for Collateralized Dispute Resolution

##### Principle

*Firms should have the ability to easily extract a trade file from their collateral system, on a regular or ad-hoc basis, to facilitate a portfolio reconciliation in the event of a collateral dispute, or otherwise. Where possible, trade portfolios should be reconciled pro-actively on a regular basis.*

##### Description

Parties should have the system capability and the procedural framework in place to allow for the easy extract of trade level data to facilitate reconciliation, pro-active or otherwise, of collateralized trades.

For more information regarding Portfolio Reconciliations, see "[Collateralized Portfolio Reconciliation: Best Operational Practices](#)" published January 20<sup>th</sup>, 2010 and available on the ISDA website

**Best Practice 5.2: Identifying Issues Causing Disputes****Principle**

*Firms should ensure there is an internal investigation process in place to identify valuation and/or operational trade breaks causing a collateral dispute.*

**Description**

The source of a collateral dispute should be identified as quickly as possible after the portfolio reconciliation is completed and should be escalated to the appropriate internal and/or external client contact(s) on a timely basis.

**Best Practice 5.3: Internal Firm Consultation Process****Principle**

*Firms should establish internal processes for the investigation and resolution of trade breaks causing collateral disputes across all relevant areas.*

**Description**

Firms should clearly define roles and responsibilities across all relevant front, middle and back office areas involved in the resolution of a collateral dispute.

**Best Practice 5.4: Sharing Post Reconciled Portfolio Data****Principle**

*Firms should establish internal guidelines and policies to ensure trading desk access to counterparty portfolio content and valuation details takes place only on a valid need to know basis.*

**Description**

A party in receipt of portfolio content and valuation details from its counterparty to facilitate the collateralization process or resolution of a margin dispute should take commercially reasonable measures to keep that information confidential from trading desk personnel, except to the minimum extent of disclosure practicable where such trading desk personnel have a need to know in order to assist in the collateralization or dispute resolution process

**Best Practice 5.5: Collateral Dispute Monitoring, Tracking, and Reporting****Principle**

*Collateral disputes should be monitored, tracked and reported from both a party and counterparty perspective.*

**Description**

Firms should have capabilities for aging and tracking the status of all collateral disputes from both a party and counterparty perspective. Collateral dispute aging should be available on a calendar day basis.

**Best Practice 5.6: Governance and Escalation Principle**

*Proper governance and/or escalation procedures should be in place to ensure proper Senior Management visibility into collateral disputes and associated resolution activities..*

**Description**

Senior management in trading, operations, finance, and credit risk should have forums and/or communications in place to ensure focus is maintained on each specific collateral dispute and to monitor the effectiveness of the overall dispute resolution process.

**Section 6 - 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.

**Best Practice 6.1: Identification****Principle**

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

**Description**

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. Custodians should be required to provide information for failed transactions on a settlement date +1 basis. This information should be consolidated and reviewed by the firm's settlements team.

#### Best Practice 6.2: Notifications

##### Principle

*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.*

##### Description

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. Also, once identified, pending settlements should be noted on outgoing collateral calls.

Collateral Control Agreements (CCAs) are set up with reporting and communication provisions enabling the beneficiary to monitor collateral segregated on its behalf. This communication type defined in the CCA should allow the beneficiary 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.

#### Best Practice 6.3: Resolution Timeframe

##### Principle

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

##### Description

Once a fail is identified, settlement teams should work to resolve the problem as soon as possible. If the sending party was DK'd, settlement instructions should be exchanged and re-verified.

The cause of any recurring settlement issue (incorrect SSI, any settlement flag, problems with custodians/cage, etc.) should be investigated, and steps should be taken to eliminate these issues going forward.

#### Best Practice 6.4: Escalation and Reporting

##### Principle

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.

##### Description

All failed settlements should be listed on a system-generated fails report. Ideally this report should be available close of business each day. The report should name the counterparty that failed, the type and amount of collateral and the date the settlement should have occurred. Aging should be applied to all fails. The report should be distributed to all relevant operations managers and credit officers on a daily basis.

## Section 7 - Assignments

### Introduction

When an assignment occurs, exposure on the applicable trade moves from one counterparty (Transferor) to another (Transferee), while the exposure for the Remaining Party is unchanged and simply moves from Transferor to Transferee. Collateral requirements shift from Transferor CSA to Transferee CSA. 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.

#### Best Practice 7.1: Transferor

##### Principle

*The Transferor in stepping out of the trade 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 Transferor as of the Novation Effective Date + 1.*

##### Description

As Best Practice, the settlement/fee related to an assignment should be collateralized between

the Transferor and the Transferee. If the Transferor removes its position from the portfolio of the Remaining Party on Novation Effective Date +1, the exposure related to the settlement/fee should remain collateralized with the Transferee until the applicable settlement date.

#### Best Practice 7.2: Transferee

##### Principle

*The Transferee stepping into the trade will collateralize the full exposure of the swap with the Remaining Party on trade date +1 of the assignment, subject to its CSA with the Remaining Party.*

##### Description

The settlement/fee related to the assignment is collateralized between the Transferee and the Transferor until the applicable settlement date. The Transferee will continue to collateralize its new position versus the Remaining Party following current market standards.

#### Best Practice 7.3: Remaining Party

##### Principle

*The Remaining Party simply moves the exposure from the Transferor to the Transferee. Their exposure on the transaction does not change in an assignment.*

##### Description

The consistent collateralization of the settlement/fee between the Transferor and Transferee will result in more accurate calls between the parties. The Transferor would no longer be hesitant to remove its trades, as its settlement risk would be fully collateralized versus the Transferee.

## Section 8 - New Trades / Unwinds / Credit Events / Compressions

### Introduction

The following section outlines best practice for collateralizing each of the trade events listed.

#### Best Practice 8.1: New Trades

##### Principle

*All new trades are to be included in the collateral calculation on trade date +1. All upfront fees on new trades should be included in the calculation until settlement date.*

##### Description

All new trades and upfront fees should be included in the relevant collateralized portfolios on trade date +1 regardless of effective date. Parties should not be able to claim that deals are not included in the collateralized deal population on T+1 because their effective date is T+2.

#### Best Practice 8.2: Unwinds

##### Principle

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

##### Description

One reason for collateral call differences is due to one party dropping unwound trades from its margin calculation on the unwind date while the other party drops the same trade on settlement date. Exposure related to the unwound trades should remain in the collateralized portfolio through settlement date.

#### Best Practice 8.3: Credit Events

##### Principle

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

##### Description

Similarly to unwound trades, credit events can cause collateral 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.

#### Best Practice 8.4: Trade Compression

##### Principle

*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.*

##### Description

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 9 - Rehypothecation and Substitution

### Introduction

The granting of rehypothecation rights and the substitution of collateral under the ISDA CSA are standard elements of collateralization where appropriate, but have been under close inspection recently due to issues in other product sets. The decision to grant rehypothecation rights, usually on a reciprocal basis, is a decision made by both sides to the agreement.

### Best Practice 9.1: Tracking of Securities Eligible for Rehypothecation

#### Principle

*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. 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.*

#### Description

A critical element of the collateral process especially involving securities pledged 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 ineligible assets may be inadvertently reused inappropriately.

### Best Practice 9.2: Reuse of Securities in Appropriately Aligned Settlement Periods

#### Principle

*Where rehypothecation rights are granted, to avoid settlement fails, 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.*

#### Description

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 .

### Best Practice 9.3: Substitutions - Recall and Delivery Times

#### Principle

*Parties should endeavor to make substitution requests as soon as possible but no later than 5pm time on T in the time zone in which secured party is located. Wherever possible, the secured party should endeavor to return items of posted credit support on the same day in which the secured party receives the substitute credit support but no later than the next local business day.*

#### Description

Where possible, delivery back of a requested item of posted credit support should take place in the same day that a substitute credit support is received, especially when the substitute item uses the same settlement convention and is in the same country.

### Best Practice 9.4: Substitutions - Replacement Item in Event of Non Delivery

#### Principle

*In the event that the secured party is unable to source and return the pledged asset, unless otherwise agreed by the parties, the secured party must provide an exact ISIN/CUSIP not later than one local business day after the substitute credit support item is received.*

#### Description

If the pledgor requests that specific assets be returned for substitution, the secured party is obligated to deliver collateral with that specific ISIN/CUSIP no later than the next local business day after which the substitute credit support item is received.

Unless agreed to by both parties, sending back “equivalent” securities or cash is unacceptable.

## Section 10 - Collateralized Portfolio Reconciliation

### Introduction

With the growth in derivatives market volumes as well as the size and diversity of bilateral portfolios, operational risk exposure can increase if counterparties do not accurately reflect derivative transactions in their system records. Recently regulators have also expressed interest in the need for market participants to validate the accuracy of derivative portfolio populations on a regular basis. As a result the G-14 financial institutions have committed to reconciling their collateralized portfolios on a daily basis.

Portfolio reconciliation is a process that compares the transaction records of two counterparties as of a given business date to ensure that both counterparties have an accurate record of the trades in their data systems. The collateral function reconciles portfolios on a reactive basis to identify the sources of a specific collateral dispute and on a proactive basis to prevent those disputes.

The benefits of portfolio reconciliation have also been recognized in other areas of the firm, for example in validating trade valuations and trade facts. The scope of this document, however, is limited to reconciliations performed as part of the OTC collateral function, and applies only to portfolios governed by a bi-lateral ISDA CSA, CSD or other OTC collateral agreement.

The objective of collateralized portfolio reconciliation is to ensure that two organizations have one consistent record for a defined portfolio (or group of portfolios) of OTC derivatives by comparing the portfolio contents provided by each participant in order to individually match the underlying trades. The reconciliation process uses a minimum set of fields necessary to ensure accurate matching and, as standard practice, includes the mark-to-market value each party has assigned to each trade. To assist this process, ISDA has published the minimum field requirements for portfolio presentation as [“Minimum Market](#)

### [Standards for Collateralized Portfolio Reconciliation.”](#)

Collateralized portfolio reconciliation does not provide legal confirmation of individual trades, nor does it seek to revalidate the confirmation process on an ongoing basis. Additionally, the process does not extend to reconciling cashflows or trade lifecycle events (e.g., rate resets, credit events, market disruption events), although the trade linkages created by regular and robust portfolio reconciliation can help to identify any booking discrepancies occurring as a result of individual trade events.

In 2008, the ISDA Collateral Committee published [“Portfolio Reconciliation in Practice”](#) which presented guidelines and considerations for portfolio reconciliation.

However as the practice of portfolio reconciliation has expanded, a range of sophisticated options for reconciling portfolios either with in-house solutions or with a vendor service has also increased which can reduce the effectiveness of the process. The ISDA Collateral Committee Portfolio Reconciliation Working Group collaborated to produce the document, [“Best Operational Practices for Collateralized Portfolio Reconciliation”](#) as a supplement to the 2008 paper. The commonly agreed to industry standards are provided below but the reader should refer to the “Best Operational Practices for Collateralized Portfolio Reconciliation” available on the ISDA website for more information.

### Shared Education & Commitment

When commencing any new reconciliation relationship with a counterparty, or when reconciling for the first time, it is important to appreciate the bilateral nature of the relationship and that both parties share a responsibility to work together co-operatively.

Time is of the essence when performing reconciliations, particularly in the case of collateral call disputes where strict timeframes are in effect. In order to be effective, parties should give early consideration to how they will operate their reconciliation process and be prepared to agree mutual priorities when onboarding new counterparties.

### Best Practice 10.1: Internal Set-up and Understanding your Counterparty's Process Principle

*Both parties should understand the size and structure of their respective teams, and agree which resources which will be allocated to working on reconciliations. Exchanging organization charts and contact lists, and discussing trigger points for escalation is also advised.*

### Best Practice 10.2: Reconciliation Strategy Principle

*A proactive and regular reconciliation strategy rather than a reactive (dispute or credit event driven) reconciliation strategy should be pursued for larger actively-traded portfolios.*

### Best Practice 10.3: Reconciliation Frequency Principle

*The frequency of reconciling portfolios should depend on the size, volatility and trading activity in any bilateral portfolio, as well as the type and credit standing of the parties involved.*

### Best Practice 10.4: Reconciliation Technology Principle

*Whether an in-house or outsourced solution or both, counterparties should make use of reconciliation technology for reconciling their portfolios to facilitate bi-lateral involvement and transparency over results. Automated solutions reduce significantly the amount of resources necessary to reconcile portfolios and result in a more efficient, timely and controlled process.*

### Best Practice 10.5: Reconciliation Tolerances Principle

*Parties should discuss and agree tolerances between themselves in order to determine what they judge to be significant mark-to-market differences, as well as material trade booking discrepancies and any other differences that may arise.*

### Best Practice 10.6: Data Standards Principle

*The OTC derivatives industry should move to adopt Market Minimum Standards for data presentation in collateralized portfolio reconciliation.*

### Best Practice 10.7: One Confirmation, One Trade Principle

*Aspirationally, parties should be able to represent any type of trade as a single line of data in their reconciliation files. This follows the principle of 'one confirmation = one trade'.*

### Reconciliation Approach and Initial Results

Correct population of portfolios and correct trade identification results in better and more accurate matching of bi-lateral portfolios. This will reduce time taken in manually matching trades and enable the parties to focus on true breaks.

The parties will need to develop a mutually agreed approach to their handling of reconciliations, including when the portfolio will be valued, when files will be available and methods for transmission and communication. This consistency of approach will result in a more efficient and effective process.

### Best Practice 10.8: Portfolio Valuation Date Principle

*Portfolios should be valued and populated as of close of business on the previous business day.*

### Best Practice 10.9: Trade Population Principle

*The trade population of portfolios to be reconciled should be consistent with the trade population under the governing ISDA Master Agreement or other collateralized OTC agreement.*

### Best Practice 10.10: Product Identification Principle

*Individual trades within the portfolio should be identified using a product classification at the point of reconciliation.*

### Best Practice 10.11: Trade Identification Principle

*Each trade in the portfolio should contain that counterparty's unique trade ID (as referenced if applicable in the Confirmation) together with any common market IDs that may have been assigned by an electronic confirmation platform. Where available, unique counterparty IDs should be submitted as part of the reconciliation file. It is best practice that these should be captured as part of the confirmation/affirmation process. Structured trades recorded using multiple legs with multiple IDs should have an additional common ID assigned to all legs to facilitate the matching process.*

**Best Practice 10.12: File Transmission****Principle**

*Files for reconciliation should be transmitted by secure means, recognizing that flexibility may be required and even desirable in certain situations.*

**Best Practice 10.13: File Formats****Principle**

*Files for reconciliation should be sent in a commonly-available standard industry format, and agreed between the parties at the outset of their reconciliation activities.*

**Best Practice 10.14: Availability of Portfolios for Reconciliation****Principle**

*To facilitate timely Dispute Resolution and to encourage the development of a proactive reconciliation strategy across the market, portfolios should be available for reconciliation on any mutual business day by request of either counterparty.*

**Best Practice 10.15: Timing of Transmitting Portfolios for Reconciliation****Principle**

*Parties should agree the time by which files are to be exchanged or uploaded. This should occur as soon as possible following the portfolio Valuation Date and not later than mid-day in the location of the collateral call or the location where the reconciliation function resides if different.*

**Breaks and Issue Management**

Once reconciliations are performed, parties may identify breaks or differences in their bilateral records.

Breaks may occur simply due to timing differences in allocating a trade to a portfolio or taking it out of the portfolio. In this event, only one party will show the trade at the time of the reconciliation (i.e., unmatched or alleged trades). Also parties may see mismatches in trade populations due to system constraints, although the trade is actually recognized by both parties.

Alternatively, the reconciliation process may uncover genuine breaks between the parties, such as parameter differences, i.e. differences in trade booking, or valuation differences where parties may be adopting different valuation models.

In all cases, the parties need to have an effective channel of communication in order to raise and resolve breaks. Responding to a request for break investigation and addressing the underlying cause(s) should be seen as high priorities.

**Best Practice 10.16: Process Transparency Principle**

*To assist break resolution, full results of all breaks arising from any reconciliation should be available if requested by the counterparty. This includes trades with field differences, MTM differences and unmatched trades. This principle applies irrespective of technology used to perform the reconciliation, whether performed in-house or through a vendor-serviced external platform.*

**Best Practice 10.17: Prioritization and High-Level Drivers in Break Resolution****Principle**

*Parties should agree mutual priorities for break resolution and what will be their focus in terms of addressing the main categories of breaks.*

**Best Practice 10.18: Counterparty Responsiveness****Principle**

*Firms should give priority to and be adequately resourced to support timely response to a request for investigation of breaks.*

**Best Practice 10.19: Break Management****Principle**

*Parties should clearly identify which of them is assigned to action a particular break and they should track the progress of resolving agreed breaks. Documentation, confirmations, or information requested by the firm investigating the break should be provided in a timely manner and no later than one business day following a request.*

**Best Practice 10.20: Internal Organization and Support****Principle**

*Firms should have a process in place which reaches across relevant functional areas in order to resolve issues or root causes uncovered as part of the reconciliation process.*

**Best Practice 10.21: Escalation and Effective Communication**

**Principle**

*Firms should have formal escalation procedures in place for addressing and actioning breaks in the portfolio promptly. Escalation procedures should focus on timeframes and process for communicating with impacted departments, for example operations, middle office, credit, product controllers and front office.*

**Best Practice 10.22: Internal System Issues****Principle**

*When the reconciliation process establishes that the cause of the trade break is an internal system or process at one of the counterparties, it is expected that the counterparty will work in good faith to resolve the underlying data issue in a timely fashion.*

**Root Cause Analysis and Reporting**

Trades requiring investigation which are not true breaks, e.g. late bookings, novations, tear-ups, settlements create noise in the portfolio. This noise is worst in the 1-2 day period but can last up to 5 days and over. With actively traded portfolios it is important to know the source of recurring issues and to understand the nature of the problems involved. Identifying root causes and reporting of differences helps both parties to understand the issues and take steps to increase auto-matching rates. The ultimate goal is to reduce the time spent in managing regular reconciliations and to focus on resolving any real breaks between the parties.

**Best Practice 10.23: Understanding Data Flows in the Front-to-Back Process****Principle**

*Flawed data and process standards will contribute a significant amount of noise to the reconciliation process, with new or maturing trades and system issues underlying many of the breaks between the parties. It is therefore important that parties understand their internal front-to-back process and data and pricing sources, in order to successfully filter out these issues from the population of breaks to be addressed.*

**Best Practice 10.24: Minimum Standards of Results Reporting****Principle**

*Firms should agree minimum standards and methods for reporting breaks in order to support transparency of results following any portfolio reconciliation.*

**Best Practice 10.25: Compliance****Principle**

*Firms should measure their compliance against these Best Practices and identify gaps to be addressed.*

**Conclusion**

These Best Practices have been drawn up by a wide group of market practitioners and represent a common view of operational criteria which support maintenance of portfolio integrity.

Since OTC derivatives documented under ISDA Master Agreement terms are bilateral contracts, these Best Practices recognize that parties should be free to decide between themselves suitable bilateral parameters for the reconciliations they perform.

While these Best Practices are not intended to be obligatory, they seek to harmonize the current range of bespoke procedures and individual priorities and create consistency and efficiency in the market. Generally, the OTC derivatives industry should move towards adopting these guidelines which utilize pro-active collateralized portfolio reconciliation as a tool to reduce operational risk and counterparty exposure.

**Section 11 - Interest Processing****Introduction**

All collateral cash balances pledged should earn accrued interest as agreed and defined under the terms of the ISDA CSA.

**Best Practice 11.1: Settling Interest (Standard Monthly Interest Calculation)****Principle**

*Interest on the collateral margin balance is accrued on a daily basis using the CSA agreed interest rate and spread. All interest accrued will be paid monthly to the party pledging collateral or as mutually agreed by the parties. It is incumbent on the party receiving interest to raise any differences in the amount received within 30 days of receipt.*

**Description**

Advice of the amount to be paid will be sent on the first business day of the month with actual delivery occurring as mutually agreed by the parties. Delivery of the interest amount will be

made to the pledgor's original settlement instructions. The following month's starting balance, interest rate and account spread should all be reconfirmed. Interest should not be rolled into the principal balance unless specifically agreed by both parties.

#### Best Practice 11.2: Flooring of Interest Rates

##### Principle

*At no point should the interest accrual (rate minus spread) drop into a negative figure. If this occurs the rate should be floored at zero.*

##### Description

Many CSA agreements were written and agreed when it was not anticipated that interest rates would reach extremely low levels. However market conditions have occurred where the interest accrual formula could result in a negative number with a collateral provider obligated to pay interest to a collateral holder. At no point should the interest accrual (rate minus spread) drop into a negative figure. If this occurs then the best practice is to floor the interest rate at zero.

#### Best Practice 11.3: Including Accrued Interest upon Final Return of Collateral.

##### Principle

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

##### Description

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.

#### Best Practice 11.4: Interest Should be Calculated Using a Standard Formula

##### Principle

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

##### Description

Market practice is that interest should be calculated using actual days. The formula should be  $(\text{Principal Balance} * (\text{Interest Rate}/100)) / (360 \text{ or } 365) * \text{number of days}$

relevant to the currency of collateral held. All decimals should be rounded to 2 places to avoid rounding issues.

#### Best Practice 11.5: Client Communication

##### Principle

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

##### Description

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: rate, daily principal amount, date, accrued interest amount and daily interest amount. The interest statement should be included in the communication as an attachment.

#### Best Practice 11.6: Interest Calculation

##### Principle

*Interest should be calculated on a full month basis only unless otherwise agreed by the parties.*

##### Description

Some CSA's 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 best practice, interest calculations should be from the first day of the month to the last day of the month, with interest accrued to the last day of the month.

## Section 12 - Tri-Party Reconciliation

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

## Best Practice 12.1: Collateral Balance Reconciliation

### Principle

*Where collateral movements are effected in a Third Party or Tri-Party system, a reconciliation of collateral balances should be performed between the parties on a daily basis.*

### Description

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

## References

ISDA Paper: Standards for the Electronic Exchange of OTC Derivative Margin Calls  
Published November 2009

ISDA Paper: 2009 Collateral Dispute Resolution Procedure” (DR Procedure).  
Published September 2009

ISDA Paper: Collateralized Portfolio Reconciliation – Best Operational Practices  
Published December 2009