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Independent Amounts

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Independent Amounts

Abstract

Collateralization has become a key method of mitigating counterparty credit risk in the derivative markets, both bilateral, privately-negotiated derivatives and exchange-traded, standardized derivatives. In several situations it is common for one party to provide collateral to its counterparty or a clearing house in an amount that exceeds the credit exposure between the two parties at a given point in time. This may occur intentionally; for example, in many (but not all) situations the delivery of Initial Margin or Independent Amount will lead to over-collateralization. It may also occur unintentionally; for example, during the time interval between the exposure between the parties reducing and the relevant amount of excess collateral being recalled. Regardless of underlying cause, any situation in which one party has delivered collateral in excess of the credit exposure borne by the other party may represent additional risk in the event that the other party becomes insolvent. This is, of course, the corollary of the scenario more often considered in collateralization, when the collateral delivered is less than the exposure. But in either case, over-collateralization or under-collateralization, one party is at risk.

This paper examines the risks associated with under-collateralization or over-collateralization associated with Independent Amounts ("IA") under ISDA Credit Support Annexes ("CSAs"), and the potential alternatives that may be developed by the derivatives market to protect participants.

Part I of the paper describes the relevant market mechanics and the risks associated with IA.

Part II then goes on to describe several alternative holding arrangements for IA that address, to one degree or another, those risks. A number of recommendations are made for market participants to enhance practice or understanding in this segment of the market.

Part III of the paper contains extensive annexes and notes that provide technical augmentation to the main text.

Although the focus of this paper is the use of IA under CSAs, it will be obvious to readers that many of the same issues and potential alternative methods apply equally to Initial Margin posted under different forms of collateral agreement, including under the rulebooks of organized derivative exchanges, and also the unintentional under or over-collateralization that occurs between exposure reduction due to market fluctuation and the resulting collateral recall.

This paper is being produced jointly by ISDA, MFA and SIFMA. It is one of the deliverables described in the derivative industry letter to the Federal Reserve Bank of New York and other banking supervisors dated June 2, 2009.

Contents

Capitalized Terms
Except as the context requires otherwise, terms in this paper which are capitalized and have either the meaning defined in the standard ISDA Master Agreement and ISDA Credit Support Annex or are specific taxonomy adopted for this paper and are defined in section 1.

Release 1.0 was published October 2009 and contained Part I only; Release 2.0 contains updates to Part I and two new sections (Part II and Part III)

Part I

The Use and Risks of Independent Amounts

In Part I of this paper we address the use and the risks of Independent Amounts (IA) from an educational perspective. These sections describe the key terms used in this field, why we have the concept of IA in the market, how the market operates in practice, the risks of IA, and the alternative ways of holding IA. Part I of this paper is intended to be factual and not expressive of any particular viewpoint regarding the use of IA.

Part II of this paper will make recommendations for alternative approaches that may be incorporated into market practice in the use and risk management of IA.

1. Key Mechanics of the ISDA Credit Support Annex

This paper deals with a complex area of collateralization, where several terms have both technically-specific meanings and are also used broadly in a more colloquial fashion by industry practitioners. In this section we describe the key elements of the ISDA Credit Support Annex[1] as it relates to the computation of collateral requirements.

1.1 Credit Support Amount

The ISDA Credit Support Annex (CSA) defines[2] the overall amount of collateral that must be delivered between the parties, known as the Credit Support Amount, as:

> **(i) the Secured Party's Exposure […] plus (ii) the aggregate of all Independent Amounts applicable to the Pledgor, if any, minus (iii) all Independent Amounts applicable to the Secured Party, if any, minus (iv) the Pledgor's Threshold**
>
> (Source : 1994 ISDA Credit Support Annex - New York Law version [3])

The Secured Party is the party that is holding collateral; the Pledgor is the party that has delivered collateral[4].

1.2 Exposure

The term Exposure is defined in a technical manner that in common market usage essentially means the netted mid-market mark-to-market (MTM) value of the transactions in the portfolio between the parties[5]. This term is the core of the Credit Support Amount calculation, and tends to drive the overall collateral requirement between the parties, except in situations where portfolios are small (and therefore often have small MTM) in relation to any applicable Independent Amounts or Thresholds. The commercial reason for basing the collateral requirement around the Exposure is that this represents an approximation of the amount of credit default loss that would occur between the parties if one were to default. Note that, in common with all derivatives, OTC or exchange-traded, this can only ever be an estimate because the MTM of positions varies through time. It should also be noted that Exposure is calculated at mid-market levels so as not to penalize one party or the other (i.e., by calculating Exposure on one party's side of the market). Upon default close-out, valuations will often reflect the replacement cost of transactions calculated at the terminating party's bid or offer side of the market, and will often

take into account the creditworthiness of the terminating party. The amount of collateral held to secure Exposure may be more or less than the termination payment determined upon a close-out.

1.3 Independent Amount

The term Independent Amount is defined in the elections and variables section of the CSA[6], or in the confirmation for individual transactions. It can be any amount that the parties agree, but typically is expressed as a fixed currency amount, a percentage of the notional principal amount, or a computation of value-at-risk. Independent Amount can be defined at the level of the portfolio of transactions between two parties, or can be defined uniquely for each individual transaction; it can be zero of course. As can be seen from the definition of Credit Support Amount set out earlier, the Independent Amount will increase the overall amount of collateral that a party is required to deliver - it makes the Credit Support Amount from that party's perspective larger. The underlying commercial reason behind Independent Amounts is the desire to create a "cushion" of additional collateral to protect against certain risks - we shall discuss these in more detail later in this paper.

1.4 Threshold[7]

The term Threshold is defined in the elections and variables section of the document, or (rarely) in the confirmation for individual transactions. It can be zero, but otherwise will typically be defined as either a fixed currency amount or a variable currency amount that changes in response to changes in the credit rating of the party concerned. In context of the expression for Credit Support Amount, any non-zero Threshold will decrease the overall amount of collateral that a party is required to deliver - it makes the Credit Support Amount from that party's perspective smaller. The underlying commercial reason behind Thresholds is that often parties will be willing to take a certain amount of credit risk to each other unsecured (equal to the Threshold), before then requiring collateral to cover any additional risk.

1.5 Interaction Between The Elements of Credit Support Amount

When considering the operation of the CSA in practice, three points are critical to remember:

- As can be readily seen, Independent Amounts and Thresholds tend to work in opposition to one another in relation to any specific party under an agreement, which is why a particular CSA will typically employ one or the other in relation to each party.[8]
- In respect of Independent Amounts, it is also obvious that if both parties are subject to an Independent Amount they will tend to cancel each other out, which is why a particular CSA will typically require Independent Amount from neither party or one party, but rarely both parties.
- Exposure and Independent Amounts are simply two of several terms netted together in the expression that yields the overall Credit Support Amount. This has an important practical consequence that although some market practitioners may sometimes think of two separate pools of collateral (one covering the Exposure and one covering the Independent Amount), under the ISDA CSA there is technically just a single pool of collateral, and the elements that make up that pool are generally not held separately. The issue addressed in this paper is whether Independent Amounts should be maintained separately so that they will be better protected from risk of loss upon a default by the party entitled to the Independent Amounts.[9]

2. Taxonomy

In this highly technical area of collateralization some terms sound similar but are different, and others appear different but carry equivalent meanings. In this section we lay out a consistent taxonomy that will be adopted in this paper and also relate these terms to others in market usage.

2.1 Taxonomy Employed in This Paper

For clarity we will adopt a consistent taxonomy in this paper:

> **Independent Amount** or IA will have the definition given in the Credit Support Annex and as the context requires will also refer to that element of the overall Credit Support Amount that is related to the IA.
>
> **Variation Margin** or VM will refer to the element of the overall Credit Support Amount that is related to the Exposure as defined in the Credit Support Annex.
>
> **Dealer** will refer to the party that is receiving IA from the other party.
>
> **End User** will refer to the party that is delivering IA to the other party.

It is important to point out that any type of counterparty could be subject to an IA requirement, including banks in some circumstances. The adoption of the Dealer and End User taxonomy set out above reflects the fact that historically the posting of IA has generally been associated with end users transacting OTC derivatives with dealers. However, this is not necessarily so in all cases and this paper should be read with this potential diversity in mind.

2.2 Other Similar Terms Used In The Market

Initial Margin is a term often used interchangeably with Independent Amount, but it is not actually a term used in industry-standard OTC derivative documentation at all; it comes from exchange rulebooks that set out the collateral required to be pledged by exchange members to the exchange clearing house.

Initial margin is typically an additional amount of collateral that must be posted to the clearing house in excess of the variation margin which reflects the market value of the exchange-traded contracts . Thus in generalized terms the initial margin on an exchange can be seen as equivalent to the IA term that goes into the computation of Credit Support Amount under an ISDA CSA.

Exchange variation margin is likewise analogous to the collateral that covers the Exposure term used in the CSA computation of Credit Support Amount. The CSA does not actually give us a convenient term by which to refer to this collateral; common market vocabulary has adopted the term Variation Margin from the exchange-traded derivative world to refer to this concept.

Various other terms (such as Original Margin and Lock-Up Margin) have developed in certain parts of the market to refer to concepts that are broadly similar to IA, although with some variations. To avoid confusion in this paper we will not use these terms further.

3. Purpose of Independent Amount

Unless otherwise established by contract, official rules, or statute, there is no obligation on any party that any OTC derivative transaction be collateralized. If the parties elect to collateralize, there is no requirement that IA be posted. These are credit risk management decisions subject to negotiation between the parties.

The use of Independent Amounts originated in the earliest days of the collateralized OTC derivative market, which date back to the late 1980s. IA has typically been a one-way obligation for an End User (typically a hedge fund) to post additional collateral to a Dealer, primarily as a cushion to guard against the residual credit risk that may exist even under a collateralized trading agreement. Such residual credit risk may arise in four principal ways:

- When mark-to-market fluctuations occur there is a delay before the new collateral amount can be computed, called and settled
- When a counterparty defaults, no more collateral movements will occur but credit exposure may continue to increase until the non-defaulting party closes out the relevant risk positions
- Collateral agreements typically contain structural features designed to ensure that effort and cost are not wasted in moving *de minimus* amounts of collateral between the parties[10]
- Collateral transfers under the CSA are based on mid-market values of the underlying derivative contracts, whereas a party's loss upon default of the other party may be realized at either the bid or offer side of the market[11]. Thus, some disparity between collateral and exposure is always to be expected, and this may be significant where spreads for a product are particularly wide[12].

It is noted that both parties are subject to these residual credit risks, however, typically only the Dealer is protected against these risks by IAs, whereas the End User remains subject to these risks on an unsecured basis (in addition to the risk of non recovery of IAs). This market practice developed based on the role Dealers play in derivatives trades and their relative credit standing.

The decision to require posting of IA is based on a number of factors, including, but not limited to:

- The credit quality of the End User[13] and the nature of their relationship with the Dealer
- The type of account or vehicle that is entering into the derivative transactions (e.g. whether or not leverage is being used, the percentage of liquid assets held in relation to swap notional value, etc.)
- The type of underlying exposure being taken - the riskier the exposure, the greater the Independent Amount requirement will be
- The volatility of a particular transaction or the derivatives portfolio.

4. Risks to Parties Posting Independent Amounts

While a Dealer receiving IA will benefit from the resulting buffer of additional collateral the End User may assume added risk of loss in the event the Dealer becomes insolvent.

In a Dealer insolvency, if an End User delivered IA directly to such Dealer and such IA was rehypothecated or commingled with such Dealer's assets, and such Dealer is overcollateralized by virtue of such IA, then the End User will have a general unsecured claim for the recovery of such IA and would be entitled to a pro rata distribution along with all other general unsecured

creditors. This type of claim ranks behind other creditor claims of higher priority, and thus in many insolvencies general unsecured creditors get paid less than 100% of their claim amount[14].

As recent events demonstrate, this is not merely a hypothetical risk. In the case of Lehman Brothers, many investors may be exposed to significant losses[15] in part because they had effectively over-collateralized Lehman through the provision of IA[16]. These IAs were generally delivered directly to Lehman, with the right of rehypothecation[17]. This meant that the IAs were permitted to be freely used by Lehman, and were not segregated or afforded any client asset protections. Therefore, following Lehman's bankruptcy filing, claims for the return of cash and securities posted to meet IA requirements were treated as general unsecured claims on the debtor's estate. These are given the same priority as claims of other general creditors, meaning in this particular case that counterparties will likely only recover a small percentage of the value of any IA posted.

However, as further discussed throughout this paper, steps may be taken to mitigate or eliminate losses of IA in a Dealer insolvency. While collateral agreements are most commonly set up with direct holding of the collateral with the right of rehypothecation and/or commingling of assets, leading to the characterization of these amounts as general unsecured claims, this need not be the case. It should be noted that there is a selection of various forms of collateral documentation with different degrees of risk and complexity - for example, tri-party custodial arrangements or the ISDA Credit Support Deed for UK Dealers—which would afford certain "client money" protections[18].

The Lehman experience has led to an increased awareness of the risks associated with posting IA. It has translated into a strong desire on the part of certain End Users to ensure that IA posted to a Dealer is held in a manner that ensures it is remote from the bankruptcy of the Dealer counterparty and immediately recoverable (i.e. "portable") upon the occurrence of such an event.

In this context there is industry-wide focus on considering alternate approaches to handling Independent Amounts that:

- In the event of default by the End User, permit the Dealer to perform close out calculations and if a net amount is owing to the Dealer, to reliably and rapidly seize and liquidate collateral (including IA) under the CSA[19];
- In the event of default by the Dealer, permit the End-User to regain control of the IA; and
- In either case, are operationally feasible, cost-effective, and sufficiently protected within the laws of the relevant jurisdictions for both parties.

5. Third Party and Tri-Party Arrangements for Independent Amounts

The following discussion applies to IA in the form of securities collateral pledged under a security interest form of collateral agreement. Please see Section 6 for a discussion of cash pledged as IA under a security interest form of collateral agreement. Section 7 addresses cash and securities delivered as IA under a title transfer form of collateral agreement.

There are essentially three ways in which a party may hold IA posted to it:

- Direct holding, in which the IA is delivered by the End User to the Dealer, and the Dealer holds the IA itself or through an affiliate entity.

- Third Party custody, in which an unaffiliated bank, broker-dealer or other party[20] operates under agreement with one of the two counterparties and simply provides typical custody and safekeeping services.

- Tri-Party custody, in which an unaffiliated bank or other party providing tri-party custodial services 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.

The terms "Third Party" and "Tri-Party" therefore connote significantly different custodial arrangements that may be used in connection with a collateral agreement.

Third Party and Tri-Party agreements will always require additional documentation between one or both parties and the custodial entity, and will likely entail amendment to the CSA documents between the parties.

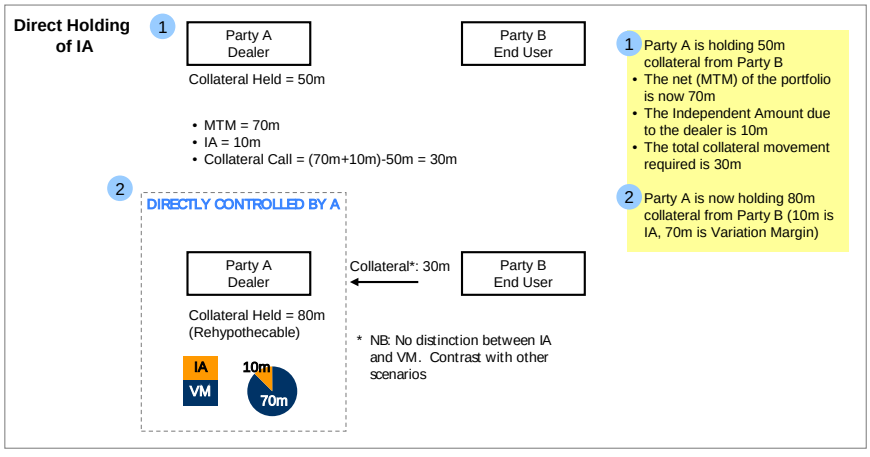
5.1 Direct Holding of IA

Where IA is delivered directly from the End User to the Dealer with rehypothecation rights and there are no formalized arrangements for the collateral to be segregated in some manner, it becomes impossible to distinguish between the IA and the other assets of the Dealer. In the event of the insolvency of the Dealer, the IA will likely be afforded no special protection and will form a part of the estate of the debtor. Claims for recovery will likely be treated as general unsecured creditor claims.

Where the Dealer takes IA that was delivered directly to it and passes it over to an affiliate to hold, much will depend on the status of the affiliate and the legal arrangement governing the holding of collateral by that affiliate. If the affiliate is a *bona fide* custodial bank and is a separate bankruptcy-remote legal entity to the affiliated derivative counterparty entity[21], then it may be possible, with the proper documentation and regulatory regime, to consider this situation as a third party custody arrangement as discussed below. Generally, however, with direct holding of IA in the name of a secured party (whether held directly or with an affiliate), it will be difficult to robustly establish any degree of bankruptcy remoteness.

In Part II of this paper, the differences between Direct Holding of IA with and without segregation, and the holding of IA at a Dealer affiliate are explored more extensively (see Part II, section 3).

Figure 1. Direct Holding of IA Illustrated



5.2 Third Party Custody Holding of IA

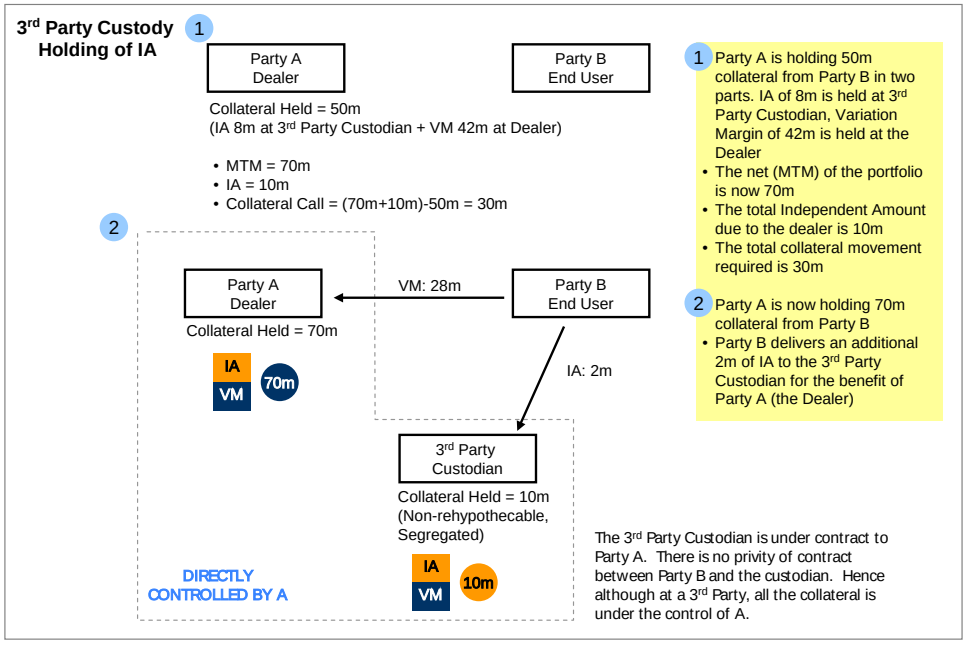
Where a Dealer receives IA from an End User, places it with a third party custodian and does not rehypothecate the collateral it will be relatively easy to distinguish between the IA and the other assets of the Dealer.

In this situation there is no privity of contract between the End User and the third party custodian, but nevertheless strong traceability of assets is afforded. This is particularly so if the Dealer is obligated by its contract with the End User to hold the IA in this third party, segregated manner, and the End User is in possession of identifying details such as the custodian name and address, the relevant account number, etc. The End User may have no control or contractual rights over the account containing the IA, but in the event of the insolvency of the Dealer, the End User can explicitly and uniquely identify the IA it had posted.

In fact, under the customer asset protection rules in several jurisdictions, holding of IA that follow the pattern set out above may enjoy certain statutory protections. For example, under the UK FSA's CASS 3 and CASS 6 rules[22], in certain cases securities collateral delivered to a counterparty that is not rehypothecated and is held segregated with a solvent custodian will enjoy the full range of customer asset protections. Certain other protections under FDIA and SIPA[23] may apply in the United States, with parallel rules in other countries.

The foregoing assumes that the secured party holds collateral with a third party custodian, subject to a bilateral contract between the two, and furthermore that the collateral is not rehypothecated. Where a third party is used but collateral is rehypothecated, it may be more difficult to establish strong traceability of assets; customer asset protection rules will not apply. This case is therefore similar to direct holding of collateral for these purposes.

Figure 2. 3rd Party Custody Holding of IA Illustrated



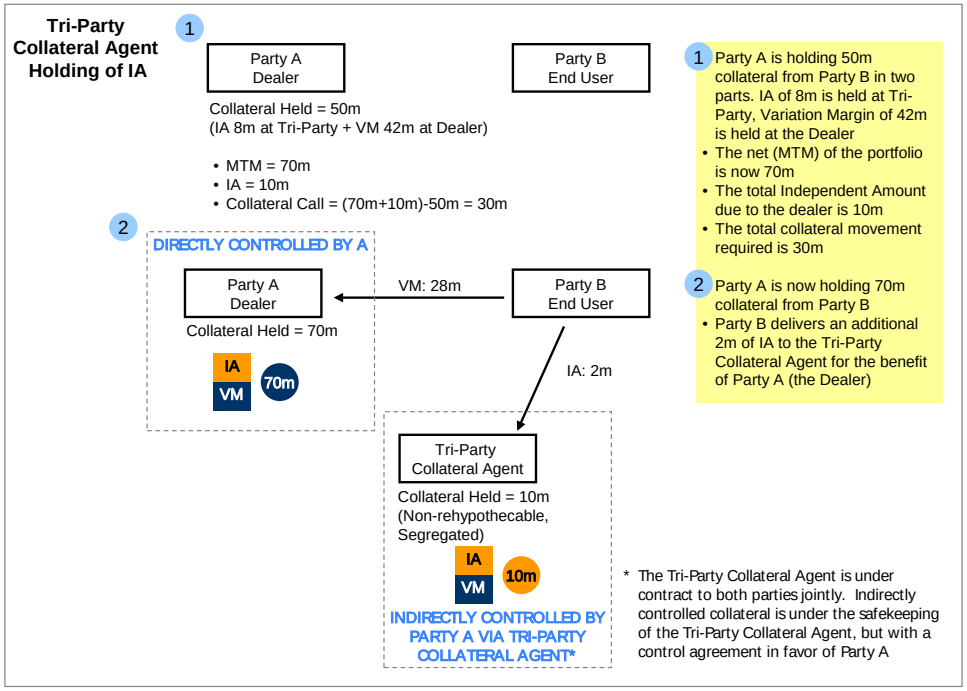
5.3 Tri-Party Collateral Agent Holding of IA[24]

In a tri-party holding arrangement of IA there is a three-way agreement between the custody bank (sometimes also called the collateral agent) and the two derivative counterparties. The End User delivers IA to the collateral agent for deposit in a custody account of the End User with a security interest granted to the Dealer.

The End User and the Dealer are both in direct privity of contract with the collateral agent, and therefore each can enforce its rights by giving notice to the collateral agent following the default of the other. While direct privity exists between the three parties, it is important to note that the tri-party custodian is not the Dealer's "Custodian" for purposes of Paragraph 6 of the New York CSA.

In this, as in all other holding models for collateral, the secured party must ensure that it obtains and continues to have a perfected security interest in the collateral. The method of perfection of a security interest differs by jurisdiction and collateral type, but in many cases it is predicated on some notion of the secured party having "control" over the assets[25]. In the tri-party holding model this is slightly more complicated than in other models, because of the existence of the third party and the three-way contract. The collateral agent provides certain undertakings to the Dealer, most particularly that they will follow the instructions of the Dealer in certain circumstances, except when the Dealer is in default under the relevant agreements. Generally, tri-party agreements also provide that a party may issue a "Notice of Exclusive Control" under certain circumstances; this is helpful in that it formally eliminates any rights of the defaulting party to attempt to instruct movement of the collateral. In certain jurisdictions, these measures are intended to establish the necessary degree of control to achieve a perfected security interest. Whether such a perfected position is accomplished is typically a question of local law and may depend upon the respective rights of all parties under the tri-party agreement.

Figure 3. Tri-Party Collateral Agent Holding of IA Illustrated



6. Cash as Independent Amount

This section considers cash pledged under a security interest form of collateral agreement.

Cash has the inherent property of fungibility. Therefore, cash delivered to a counterparty or to a custodian will be difficult to effectively segregate on the balance sheet of the entity concerned - it will effectively be an unsecured claim on the party holding it.

This issue may be possible to avoid in circumstances where cash is held with a third party custodian in a defined segregated account and not invested or re-used in any way; the pledgor would likely not earn a return on cash sequestered in this way. If the third party offers an investment of segregated cash collateral, it may have only limited and low-yielding investment options.

To avoid this investment return issue, sometimes cash is delivered as collateral with an accompanying or standing instruction to invest that cash in a defined range of instruments. These typically include mutual fund investment units and short term liquid paper, although any investment could be instructed in this way in theory. In these circumstances, it is not always clear what asset the secured party actually has a security interest in. For example, if cash was delivered as IA for the benefit of the Dealer to the custodian who had instructions to purchase money market funds with the cash, does the Dealer have a security interest in the cash or the money market fund units? Overnight cash sweep products also present similar challenges, since at the close of business on a day D and the opening of business on day D+1 a party may clearly be holding cash collateral, but in the intervening overnight hours the cash may have been swept to an offshore jurisdiction and invested in securities or other assets to earn a return.

In general, it may be preferable to use cash collateral only where the receiving party has unfettered rights of use, and therefore can both generate an appropriate investment return on the cash and avoid ambiguity as to what the collateral actually is; by contrast, where collateral will be segregated it may be preferable if delivered in the form of a debt or equity security, or instrument such as a money market fund unit, that is distinguishable from other assets and has a defined return to the pledging party.

In any case, careful drafting of documentation is needed to ensure that the secured party has a security interest in the collateral at all stages and in all forms of holding, whether it is in the form of cash or some investment holding purchased or financed with the cash.

7. Independent Amounts Under Title Transfer Collateral Agreements

This section considers both cash and securities delivered under a title transfer form of collateral agreement.

IA can be a feature of both the New York Law Credit Support Annex (security interest form of collateralization) and the English Law Credit Support Annex (title transfer form of collateralization). The legal mechanisms underpinning these otherwise essentially similar documents are very different. The idea of segregating IA into non-rehypothecable accounts is really applicable only to the security interest forms of documentation[26].

Under the English Law CSA, the Transferor becomes an unsecured creditor once it delivers (by outright transfer of title) excess collateral. Regardless of what the Transferee does with those assets (subject to not behaving in a way that risks re-characterization of the delivery), the risk to the Transferor does not change. The assets belong to the Transferee at the point of delivery.

When the Transferee uses those assets, it is using its own assets and not rehypothecating. By contrast, under the NY CSA when the Pledgor delivers assets, the Pledgor retains a title in those assets which may be effectively extinguished when/if the assets are commingled or rehypothecated.

Under a title transfer collateral agreement, a transfer of assets inherently creates an unsecured claim for the return of those assets, subject to common law set off rights in respect of other amounts owing between the parties. This is the basis for around half of the collateralized OTC derivative market, in addition to the repo markets.

In fact, if one were to segregate IA (or any collateral) under a title transfer collateral agreement, it would create a high degree of recharacterization risk. Under a title transfer agreement, the recipient of collateral becomes the legal holder of title to the asset concerned - the recipient owns the assets outright. If they were to segregate those assets and treat them in a manner different to that in which they generally treat their own assets, then it invites recharacterization of the agreement as not being a title transfer at all, but in fact being a security interest form of collateral arrangement, but one for which the necessary steps to perfect a security interest might not have taken place.

Therefore, as distinct from the three patterns of holding collateral under a security interest agreement discussed in Section 5, under a title transfer agreement there really is only one method of holding collateral, which is for the secured party to hold it directly.

There has been some significant amendment of the legislation relating to the perfection of security interest arrangements within the European market pursuant to the terms of the Financial Collateral Directive. This may go some way towards allaying this concern about recharacterization risk. However, the Directive has not been implemented in a consistent way across the different jurisdictions within the European Economic Area so it is unlikely that a generic solution will be feasible.

It should be noted that the title-transfer based English Law Credit Support Annex has a parallel security interest based companion document, the English Law Credit Support Deed. In addition, the ISDA 2001 Margin Provisions document contains both title transfer and security interest mechanisms for taking collateral. It may be feasible to create a situation where the VM element of the overall collateral pool is subject to title transfer (freely useable) and the IA element is subject to security interest (segregated) by using either the English Law CSA and CSD in conjunction, or by using the Margin Provisions.

Part II

Alternative Approaches for Independent Amounts

In Part I of this document, the mechanics and risks associated with Independent Amounts (IA) were discussed. In Part II, we articulate a range of IA options which firms can bilaterally negotiate depending on risk and cost appetites, and make certain recommendations for future market evolution. It is assumed that readers are familiar with the detail of Part I.

It should be noted that the scope of Part II of this document is IA delivered between two parties to a non-cleared OTC derivative contract; cleared contracts are outside this scope, and the applicable clearing house rules should govern such IA deliveries.

1. IA Under Title Transfer Collateral Agreements

As discussed in Part 1 of this paper, title transfer forms of collateral agreement cannot safely accommodate the segregation of IA. This is due to the elevated level of recharacterization risk if the party receiving collateral under an ostensible title transfer arrangement treats those assets in any manner inconsistent with the notion that title has transferred - holding such assets in a segregated manner is clearly inconsistent with how a party would hold assets in which all right and title had been transferred.

Recommendation 1: Collateral taken under title transfer forms of collateral agreement should not be segregated or have any similar limitation on the receiving party's ability to freely use the collateral, for it is legally the receiving party's own property.

However, while the concepts of segregated IA and title transfer are fundamentally incompatible, it is noted that one construction that may avoid the recharacterization risk issue is to execute two collateral agreements between the parties: the first being a title transfer collateral agreement that covers only VM, does not require segregation and does not limit re-use of the collateral; the second being a security interest collateral agreement that covers only IA and may require segregation and limit rehypothecation[27]. It is noted that such hybrid constructions have been observed in the market, although in a relatively small number of cases. Such hybrids have not been subject to much (if any) litigation to date, and may not be specifically addressed by the relevant industry legal opinions relating to collateral[28].

Recommendation 2: Collateral that is intended to be segregated should be governed by a security interest form of collateral agreement. Parties may consider utilizing hybrid title transfer / security interest documentation arrangements. Parties may wish to research legal issues associated with the operation and enforcement of hybrid arrangements.

The remainder of this paper deals exclusively with IA held under security interest forms of agreement.

2. Unrestricted Direct Dealer Holding of Security Interest IA

Direct Dealer Holding without any restrictions (such as a segregation requirement or a limitation on rehypothecation) is the most common current market practice in the US and Asia. By contrast, title transfer collateral is the most common current market practice in Europe. It is estimated that more than 90% of all current security interest based OTC derivative collateral agreements are

contracted on the basis of non-segregation and include the ability to rehypothecate IA[29, 30]. As discussed in Part 1, this method of holding IA poses additional risks for End Users; however, it may continue to be an appropriate method in some circumstances. Parties using such a method should have a full understanding of the risks of non-recovery upon insolvency of the Dealer and a complementary appreciation for the probability of insolvency of the Dealer.

Recommendation 3 - Unless otherwise required by law or regulation, unrestricted Direct Dealer Holding of IA should continue to be an available option between a pair of counterparties that are willing to accept the risks associated with such a holding arrangement. Dealers should consider the optional use of a risk disclosure statement (see example at Annex B) for certain counterparties[31].

3. Alternate Holding Arrangements for Security Interest IA

In addition to the practice of Unrestricted Direct Dealer holding of IA, we identify 4 alternate holding arrangements for security interest IA. Please see Annex C for a comparative summary of these options.

Recommendation 4 - Both Dealers and End Users should consider a range of alternative holding arrangements for IA that include features designed to manage for both parties the risks and benefits associated with IA. Legal advice in respect of the risks and benefits of the various structures in the relevant jurisdictions is highly recommended. These may include, but are not limited to, the IA holding arrangements described below. When negotiating a CSA, the counterparties should mutually agree the particular IA holding structure in accordance with Recommendation 9 below.

Non-Exclusive List of Alternative Security Interest IA Holding Arrangements

- **Segregated Direct Dealer Holding of IA[32]**
  - **IA is delivered by the End User directly to the Dealer. The Dealer is required to segregate the IA from their own assets and those of unconnected third parties on their books and records. The dealer is not permitted to rehypothecate the IA. The Dealer may invest cash or lend securities as contractually agreed for the benefit of the End User.**

- **Segregated Dealer Affiliate[33] Holding of IA[34]**
  - **IA is delivered by the End User to an Affiliate of the Dealer, and held pursuant to a contract between the Dealer and its Affiliate. The Dealer and the Affiliate are both required to segregate the IA from their own assets and those of unconnected third parties on their books and records. The Dealer and the Affiliate are not permitted to rehypothecate the IA. The Dealer may invest cash or lend securities as contractually agreed for the benefit of the End User.**

- **Third Party[35] Custodian of Dealer Holding of IA[36]**
  - **IA is delivered by the End User to a Third Party Custodian that is appointed by and subject to a bilateral contract with the Dealer. The Dealer may not hold IA directly, but instead the Third Party Custodian holds the IA in an account that indicates the ownership interest of the End User and the security interest of the Dealer in all of the assets in the account. The Third Party Custodian is required to segregate the IA**

from its own assets and those of unconnected third parties on its books and records. The Dealer and the Third Party Custodian are not permitted to rehypothecate the IA. The Dealer and the Third Party Custodian may invest cash or lend securities as contractually agreed for the benefit of the End User.[37]

- **Tri-Party Collateral Agent Holding of IA[38]**
  - **IA is delivered by the End User to a Tri-Party Collateral Agent that is under contract to the Dealer and the End User jointly[39]. The Tri-Party Collateral Agent will hold the IA in an account in the name of the End User, with a security interest granted to the Dealer in respect of the assets in such account[40]. The Tri-Party Collateral Agent is required to segregate the IA from its own assets and those of unconnected third parties on its books and records. The Dealer and the Tri-Party Collateral Agent are not permitted to rehypothecate the IA. The Dealer and the Tri-Party Collateral Agent may invest cash or lend securities as contractually agreed for the benefit of the End User.**

Because all of these alternatives require segregation of IA, it will be necessary to modify the standard New York and Japanese law ISDA Credit Support Annexes to permit segregation of IA as a separate pool of collateral, as opposed to the current language that produces a blended collateral pool. Sample language to accomplish this for the New York CSA is provided at Annex D. The English Credit Support Deed already requires the Dealer to segregate non-cash collateral (and, where the Dealer holds the IA with its own Custodian, requires the Custodian to segregate non-cash collateral). It will however be necessary to modify all three types of documentation (the ISDA Credit Support Deed, New York CSA, and Japanese law CSA) if there is to be a requirement to segregate cash collateral, which typically will not be possible or practicable if the Dealer is a bank. Further documentation would also be required to give effect to the Tri-Party Collateral Agent holding of IA.

In addition:

Recommendation 5 - ISDA should develop a standard form of amendment agreement that permits the parties to a New York Law CSA to accommodate treatment of segregated IA as a separate pool of collateral. This form of amendment could provide that either (i) IA and VM collateral pools are delivered separately, with two separate cash flows and no netting; or (ii) IA and VM are netted (see Annex D). This should be a point of negotiation between contracting parties.

Recommendation 6 - As sufficient industry experience and feedback on the foregoing proposals emerges over time, ISDA should consider updating its range of collateral legal opinions to take account of the above documentation changes.

Market participants seeking to use the range of holding arrangements for IA discussed above should note the following important points and seek advice of qualified counsel where appropriate:

- Tri-Party vs Other Custodians. The Tri-Party Collateral Agent holding structure is the only one of those listed that puts the End User in privity of contract with a custodian. In the absence of such privity, IA transferred by an End User to the custodian of an insolvent Dealer that represents an excess of collateral over termination exposure carries risk because, as a practical matter, such collateral may not be recoverable from the custodian by the End User directly except through the procedures applicable in the insolvency

proceeding of such Dealer and may, in such insolvency proceeding, give rise only to a general unsecured claim against the dealer. Depending on the jurisdiction, it may be difficult or impossible to recover pledged IA under such circumstances and recovery could take a substantial amount of time.

- Internal Segregation. In certain jurisdictions, it may be possible, but remains subject to uncertainty, that a Dealer (or a Dealer Affiliate) can segregate IA in such a manner as to ensure that, in the event of such Dealer's insolvency, such IA will not form part of the general estate of the Dealer and will not otherwise be commingled with the assets of other creditors. End User recovery of IA in the event of a Dealer's insolvency will depend on many factors, including the relevant jurisdiction under which the insolvency will be managed and the type of entity that is holding IA. For certain types of counterparties, notably banks and broker-dealers, the special insolvency regimes[41] applicable may yield relatively faster recovery of some or all of the End User's IA, as compared to the rules in respect of other types of entities, depending on the jurisdiction concerned. For example, if IA can be characterized as a customer asset and thus fall within applicable client asset protection rules (for example, in the UK under CASS 6 - see Annex A), then this may yield relatively faster recovery of some or all of the End User's IA. However, globally the situation remains unclear. Two recent examples of asset segregation at an affiliate illustrate this: Lehman Brother's segregation of UK client money at its German subsidiary, Lehman Bankhaus; and Lehman Brothers Inc.'s booking of client assets at Lehman Brothers International Europe. In both cases customer assets have yet to be returned to customers. In the first case, clients may only recover only around half of their total client assets (and this recovery is only thanks to the fact that around half of Lehman's client money was held at other unaffiliated firms). In the second case, SIPC has denied coverage and therefore clients may only recover 15-25%. In both cases, recovery is unlikely this year - so when clients do recover some portion of their money, it will likely be nearly 3 years after the dealer insolvency. However, because such dealer insolvency events are rare, there is a lack of experiences on which to test the various asset protection schemes. For example, there has not been an insolvency of a dealer that is a US bank or has a US bank affiliate that holds segregated collateral. This is an area where globally coordinated action by regulators and legislators would be welcome to clarify and make more certain the outcome.

- Dealer Affiliates. There is a risk that affiliated parties will experience contemporaneous bankruptcy, even if the affiliates are independently run and have different business models and/or regulatory oversight regimes. This risk should be taken into account when considering whether it is appropriate to utilize a Dealer Affiliate as a Custodian.

- Custodian Risk / Cost. In this paper we have not sought to address the secondary risks associated with the Third Party Custodian or Tri-Party Collateral Agent. Entities providing such services are generally subject to special rules or structure their business model in such as way as to minimize the risk of their default from the perspective of parties entrusting assets to their care. We also have not considered the operational performance capabilities, timing or standards that would be required of Third Parties operating in these capacities. A complete risk assessment (which also includes concentration risk since there are only a limited number of custodians) would consider such factors[42].

Other non-risk based but equally important factors to consider as a result of segregating collateral are:

1) The potential for an increase in transaction costs to the end-user due to lack of rehypothecation rights for the Dealer, custodial or tri-party fees and other costs

2) An increase in the time required to negotiate and execute ISDA master agreements and, if applicable, control agreements
3) An increase in documentation mistakes due to increasing complexity both within the ISDA master agreement and vis-à-vis the control agreement if IA will be held under a Tri-Party Collateral Agent holding structure.

A secured party must ensure that it obtains and continues to hold a perfected security interest in collateral received. For the purposes of New York Law, under a Tri-Party Collateral Agent arrangement, it is typically intended that this is accomplished by the secured party obtaining "control" within the meaning of the relevant local law. For example, under the Uniform Commercial Code as adopted in New York, "control" is achieved through the ability of the Secured Party to originate instructions to the Custodian, often following the giving of a "Notice of Exclusive Control"[43] following termination under the ISDA Master Agreement. Other jurisdictions may have other perfection requirements, such as the requirement in England to notify the custodian of the security interest. Because the requirements for obtaining a perfected security interest can be satisfied in different manners depending on the particulars of the two counterparties, the Third Party entity, the contractual arrangements between them and the relevant jurisdiction(s), various approaches have been adopted by market participants[44]. We note, however, that market participants are at times experiencing significant delays in documenting acceptable arrangements and have included Recommendation 12 below with this in mind.

Under the current CSA, a counterparty who uses a Third Party acting as custodian or collateral agent remains liable for the loss of the collateral by such Third Party - the Third Party is the agent of the Dealer and if the collateral were to be lost (for example, as a result of insolvency of the third party, fraud, operational error or other cause), then the Dealer is liable for the collateral posted by the End User. However, where the End User is requiring the segregation of IA to be at an independent Tri-Party Collateral Agent, the parties may agree to vary this standard approach.

Recommendation 7 - Parties should consider who should bear the risk of loss in the event of the insolvency of an independent Tri-Party Collateral Agent, and ensure that this responsibility is clearly documented between them.

4. No Restriction on VM

It should be noted for the avoidance of doubt that the above alternate holding arrangements are intended to be employed exclusively in relation to holding IA, not in relation to holding VM.

As explored fully in Part I of this paper, the risks addressed through these alternate mechanisms arise primarily through the use of IA as part of a collateral agreement. The risk analysis for VM is in marked contrast, since it generally does not represent an over-collateralization. Instead, in general, any VM delivered by one party to the other will bear a close relationship to the net amount owed between the parties. Therefore, in any jurisdiction where netting legislation is in effect or common law set off rights apply, the risk to the party delivering the VM is minimized[45].

In addition, unlike the asymmetrical risk of IA which mainly affects End Users, VM is of course delivered in both directions between the parties, according to the net mark-to-market of the portfolio.

Consequently, restrictions on the use of VM are generally not appropriate because the risk (a) is already mitigated by netting and/or set-off legislation, and (b) equally affects both parties. If any

party is sufficiently concerned about the credit risks associated with the holding of VM by the other party, they should consider alternate collateral arrangements, other forms of credit enhancement or avoidance of the underlying risk.

Recommendation 8 - All parties should, subject to local law requirements, continue to be able to hold collateral to cover VM free of any segregation requirement, restriction on rehypothecation or other limitation[46]. When using the English Credit Support Deed, parties should consider whether the arrangement constitutes a "security financial collateral arrangement" and, if so, whether it is preferable to amend the Deed to permit rehypothecation and remove the requirement to segregate or whether the English Credit Support Annex should be used for VM.

5. Flexibility and Private Negotiation

It should be noted that nothing precludes a pair of counterparties from negotiating any other holding structure for IA that they consider to be appropriate, whether listed above or not.

Dealers may elect not to offer the full range of alternatives set forth above to any or all End Users. In turn, End Users are not under any obligation to accept IA terms proposed by a Dealer.

The parties themselves will have the greatest knowledge of the relative risk and cost appetites that exist between them, what the most appropriate structure is for them, and thus should have the flexibility to mutually elect an IA approach that expresses those considerations

Recommendation 9 - The parties to an OTC derivative contract should be free to contract bilaterally for the IA approach that best suits the facts and circumstances that exist between them.

Recommendation 10 - End Users and Dealers contemplating collateral agreements containing IA terms should each evaluate carefully the risks, costs, limitations and risk mitigation effectiveness of the proposed IA holding structure, taking such legal or other professional advice as they consider appropriate. A party should not enter into a collateral agreement that they consider to be unsuitable for themselves.

6. Legal Certainty and Reduction of Impediments to Realizing Collateral

In the event of default by an End User, a Dealer who has collected IA (via whatever holding mechanism) desires to be certain that they can promptly seize and liquidate collateral, including IA, and apply the proceeds from the liquidation to any amounts payable by the End User under the ISDA.

In the event of default by a Dealer, an End User who has delivered IA desires to be certain that they can promptly recover any excess collateral, including IA.

Currently various impediments exist to achieving these desires, which vary according to the holding structure for the collateral concerned. These were discussed in Part I of this paper. Accordingly, we make two recommendations that will enhance legal certainty that both Dealers and End Users are appropriately protected in the scenarios described above:

Recommendation 11 - In those jurisdictions where there exist concerns, national legislators and financial supervisors[47] should amend statutes and rule-makings to ensure

that derivatives collateral held by a non-defaulting secured party is not subject to stay, attachment or other enforcement delay in bankruptcy, and also that excess derivatives collateral held by a defaulting secured party is promptly returned to the pledgor. We note that such an initiative took place in Europe by virtue of the European Financial Collateral Directive.

Recommendation 12 - ISDA, SIFMA, MFA, and market participants[48] should expeditiously work together to develop standard provisions that may be incorporated into documents for Third Party Custodian and Tri-Party Collateral Agent IA holding arrangements. Consideration should be given to applying these standard provisions to the holding of IA by Dealer Affiliates also, where applicable.

These standardized provisions should promote ease of negotiation, consistency of operation, reduction of cost and risks to participants. They should also remove procedural impediments or doubts, such as the existence of liens, set-offs or priorities in favor of the Custodian or Tri-Party Collateral Agent, or any delays in the prompt release of collateral to the relevant party in the event of default by the other party. They should allow for cash collateral to be pledged as IA and invested in accordance with the wishes of the parties in a straightforward and secure manner. Even though mechanically standardized, these documents should allow for innovation and competition on price, value-added services, customer service and other aspects of the arrangement. As noted above, however, perfection and characterization of the secured party's security interest in the collateral is a key component of any arrangement and any standardized provisions must not affect this aspect of the treatment of IA.

It is appreciated that the legislative and rule changes contemplated above are complex, involving cross-border legal issues and public policy considerations relating to bankruptcy protection and creditor rights. It is also noted that the documentation standardization described above is similarly challenged by multi-jurisdictional cross-border issues and commercial considerations of custody providers.

Both of these will require considerable work, but in combination with the earlier recommendations in this paper, we believe that this overall package of measures provides a framework for the use of IA. This Independent Amount Framework provides security for Dealers, protection for End Users and is practical to operate as a key component of counterparty risk management in the bilateral OTC derivative market.

Part III

Annexes

Annex A - Example Client Asset rules from the UK FSA Handbook

Expanding upon the references made in Section 5.2 and Note 22, below we reproduce in relevant parts the Client Asset rules from the UK FSA Handbook. For the complete reference material, please see FSA Handbook, Client Assets (CASS) section, found at http://fsahandbook.info/FSA/html/handbook/CASS. Text below in bold is quoted from the FSA Handbook; other text is provided to assist the reader with context.

CASS 3 ("Collateral") establishes that collateral received with no rehypothecation rights falls under the custody or client money rules:

- **CASS 3.1.3 - This chapter does not apply to a firm that has only a bare security interest (without rights to hypothecate) in the client's asset. In such circumstances, the firm must comply with the custody rules or client money rules as appropriate.**

CASS 3.1.5 – 3.1.7 provide further guidance on this section.

In addition, collateral with rehypothecation rights that are not exercised is also covered:

- **CASS 3.2.3 – If the firm has the right to use the client's assets under a "right to use arrangement" but has not yet exercised its right to treat the asset as its own, the client money rules or the custody rules will continue to apply as appropriate until such time as the firm exercises its right […]**

CASS 6 ("Custody Rules") sets out the requirements for assets considered to be under the custody rules. It excludes title transfer collateral assets from its scope:

- **CASS 6.1.6 - The custody rules do not apply where a client transfers full ownership of a safe custody asset to a firm for the purpose of securing or otherwise covering present or future, actual, contingent or prospective obligations.**

CASS 6 then goes on to explicitly require a firm holding client assets to preserve the client's ownership rights, including upon insolvency of the firm:

- **CASS 6.2.1 - A firm must, when holding safe custody assets belonging to clients, make adequate arrangements so as to safeguard clients' ownership rights, especially in the event of the firm's insolvency, and to prevent the use of safe custody assets belonging to a client on the firm's own account except with the client's express consent.**

It further articulates how this protection may be accomplished, including the non-mandatory use of a third party service, and the requirement to establish segregation between the assets of the firm and the client (and indeed the third party, if one is used):

- **CASS 6.3.1**
  (1) A firm may deposit safe custody assets held by it on behalf of its clients into an account or accounts opened with a third party, but only if it exercises all due skill, care and diligence in the selection, appointment and periodic review of the third party and of the arrangements for the holding and safekeeping of those safe custody assets.
  (1A) A firm which arranges the registration of a safe custody investment through a third party must exercise all due skill, care and diligence in the selection and appointment of the third party.
  (2) A firm must take the necessary steps to ensure that any client's safe custody assets deposited with a third party, in accordance with this rule are identifiable separately from the applicable assets belonging to

the firm and from the applicable assets belonging to that third party, by means of differently titled accounts on the books of the third party or other equivalent measures that achieve the same level of protection.

Readers are advised that this is only a brief survey of the relevant provisions of the FSA's Client Asset (CASS) rules. Review of the complete CASS text is recommended, and firms may wish to take advice from qualified legal practitioners.

Annex B - Optional Risk Disclosure and Non-Reliance Statements

In connection with Unrestricted Direct Dealer Holding of Security Interest IA, parties may wish to employ the risk disclosure language set out below in their CSA, confirmation or other documentation. In light of the prevalent use of security interest collateral in the US, the wording has been drafted for use with the New York Credit Support Annex. Appropriate amendments would be required for other forms of credit support arrangements:

"Dealer hereby informs Counterparty and Counterparty hereby acknowledges that, with respect to collateral posted to it, (i) except as otherwise agreed in writing between Dealer and Counterparty, Dealer may use any collateral delivered to it by Counterparty in its business; (ii) in the event of Dealer's failure, Counterparty will likely be considered an unsecured creditor of Dealer as to all such collateral then controlled (or otherwise previously delivered to and not returned) by Dealer; and (iii) such collateral will not be subject to the requirements of any client money or customer protections afforded by any applicable securities or financial services regulator. "

In connection with Unrestricted Direct Dealer Holding of Security Interest IA, parties may also wish to employ the non-reliance language set out below in their CSA, confirmation or other documentation:

["Each party represents to the other party (which representation will be deemed to be repeated by each party on each date on which a Transaction is entered into or amended, extended or otherwise modified) that it is acting for its own account, and has made its own independent decisions to enter into this Agreement and any Transaction hereunder and as to whether this Agreement and any Transaction hereunder is appropriate or proper for it based on its own judgment and upon advice from such advisors as it has deemed necessary. It is capable of assessing the merits and understanding (on its own behalf or through independent professional advice), and understands and accepts, the terms, conditions and risks of any Transaction. It is also capable of assuming, and assumes, the risks of any Transaction. It is not relying on any communication (written or oral) of the other party as investment advice or as a recommendation to enter into this Agreement or any Transaction hereunder, it being understood that information and explanations related to the terms and conditions of this Agreement and any Transaction hereunder shall not be considered investment advice or a recommendation to enter into this Agreement or any Transaction hereunder. No communication (written or oral) received from the other party shall be deemed to be an assurance or guarantee as to the expected results of any Transaction hereunder. Neither party is acting as a fiduciary for or an advisor to the other party in respect of any Transaction under this Agreement."**]**

Annex C - Comparison of IA Holding Arrangements

The table below is intended to provide a convenient, relative assessment of the IA holding arrangements described earlier. The table is not meant to be a comprehensive list of factors or issues present in any one of these holding arrangements. In using adjectives such as "slow", "uncertain", "instant" and "moderate" we seek to provide a general and relative sense of how these alternatives compare - not any absolute statements of fact. It should also be noted that the outcome in any particular case will be heavily dependent on the contractual terms that the parties agree upon (e.g. in a tri-party agreement that includes dispute rights for termination, this could potentially make the speed of recovery extremely slow). Note that for clarity the table is based on the New York law CSA. Although this table was developed collectively by a panel of market practitioners representing all the main constituencies within the market, the descriptions may be subject to disagreement. Nevertheless, diversity of opinions notwithstanding, it is hoped that the table provides a useful aid to understanding.

TABLE C-1

SUBJECTIVE COMPARISON OF IA HOLDING ARRANGEMENTS

Readers should note that since each cell is meant to cover a range of structures and legal regimes with a high level phrase, it may not comprehensively reflect the variation of possibilities and uncertainties related to the subject structures.

		IA Holding Arrangements				
		1 Unrestricted Direct Dealer Holding of Security Interest IA	**2 Segregated Direct Dealer Holding of IA**	**3 Segregated Dealer Affiliate Holding of IA**	**4 Third Party Custodian of Dealer Holding of IA [C3]**	**5 Tri-Party Collateral Agent Holding of IA [C3]**
3rd Party Involvement?		None	None	Dealer Affiliate	Custodian	Parties' Compliance with Collateral Requirements May be Actively Managed by Tri-Party Agent
IA Segregated?		No	Yes	Yes	Yes	Yes
Segregated on Books of 3rd Party?		No	No	Yes	Yes	Yes
Rehypothecation - Onward Pledge?		Yes [C1]	No [C1]	No	No	No
Making use of the IA at the direction of the End User- Invest for Return on Cash?		Dealer directs use of IA. End User obtains a return based on a referenced interest rate	Yes	Yes	Yes	Yes
Speed of Recovery of Collateral Upon Counterparty Default	Dealer seizure of IA upon End User default	Instant	Instant	Fast	Fast	Varies [C4]
	End User recovery of IA upon Dealer default	Slow & Uncertain	Varies [C5]	Varies [C5]	Probably Slow	Moderate to Fast
Liquidity Benefit to Dealer [C2]		Yes	No	No	No	No
Operational Cost		Lowest	Low	Low	Moderate plus 3rd party fees	High plus 3rd party fees

[C1] Segregated Direct Dealer Holding of IA actually has the lowest risk to a Dealer because there is no rehypothecation risk since the Dealer cannot pledge the collateral for other purposes. By contrast, where rehypothecation is allowed, this actually introduces slight additional risk to the Dealer that the party to whom they rehypothecate the collateral will fail to return it, leaving the dealer with the potential cost of replacing it. Naturally, a Dealer in such circumstances will exercise set off, netting and other remedies that would substantially if not entirely eliminate the loss associated with this risk,

although there remains the possibility that some loss would occur; thus the all-in lowest risk approach from the Dealer's perspective is actually method 2.

[C2] Where Independent Amounts are rehypothecable, a Dealer will obtain the benefit of additional liquidity. However, as noted by the Federal Reserve Bank of New York in the January 2010 staff report entitled "Policy Perspectives on OTC Derivatives Market Infrastructure", when End Users were concerned about, among other things, a potential loss of IA from a weakened Dealer, they novated trades away from such weakened Dealers, thereby "adding to [the Dealer's] strains in a way that may have contributed to their failures". Thus, Dealers should not be dependent on IA as a necessary source of liquidity, as such dependence could create systemic risk. On the other hand, there are some arrangements in which a Dealer provides an OTC derivative solution to an End User which is related to an exchange-traded derivative or a cleared derivative, which the dealer acquires in order to hedge its risk. In these circumstances, the clearing house will require the Dealer to post initial margin in respect of its hedge. If the Dealer is unable to rehypothecate incoming IA related to the OTC derivative trade, they will not be able to use this to cover the related clearing house initial margin for its hedge, and consequently the Dealer will need to fund this separately. Where this occurs, the additional costs may need to be factored into the transaction in some manner. Alternatively, the parties may agree not to require segregation of IA to the extent of the initial margin requirements in such circumstances.

[C3] The third party in the IA holding arrangements described in (4) and (5) is a custodian in both cases. The distinction is that (4) is a two-way contract between the Dealer and custodian while in (5) it is a three-way contract between all parties. It is also possible that in (5) the Tri-Party Collateral Agent is appointed on behalf of the End User, for example this is typical in the case of so-called 1940 Act funds in the United States. The Tri-Party Collateral Agent Holding of IA in (5) can range from an actively managed arrangement where the custodian performs key elements of the margin process (e.g. checks the eligibility, moves collateral, etc.) to a more passive arrangement where the custodian has only limited responsibilities to safe keep collateral and release it to each party as appropriate. In considering these holding arrangements the parties should be aware of certain adverse contractual terms insisted upon by some Tri-Party Collateral Agents. One example is where some custodians require the proceeds of the collateral (e.g. redemption proceeds of a maturing bond, coupon income, etc.) to be wired automatically to the End User, thus effectively releasing the Dealer's collateral and possibly creating unsecured credit risk. This risk may be managed with appropriate procedures to replace securities close to maturity with alternate collateral, and thus avoid receiving the redemption proceeds into the account; not all custodians or firms may readily have the capability to monitor this. Also, some custodians reserve a first lien over account contents to cover any advance the custodian makes on behalf of the End User for funds scheduled to arrive but which have not yet due to timing mismatches, etc. If the funds never arrive, the custodian's prior lien to recover the advances made on behalf of the End User will subordinate the Dealer's collateral rights to the assets. In a collateral account, custodians should typically not be making advances to either the End User or the Dealer. Collateral accounts between two counterparties should also not be subject to unrelated claims by the custodian with respect to either the End User or the Dealer, and any set off or lien rights asserted by the custodian should be carefully considered before being accepted. Implementation of Recommendations 10 and 11 in this paper would ameliorate the majority of these concerns.

[C4] In theory, seizure of collateral under the management of a Tri-Party Collateral Agent should swiftly follow from the issuance of a Notice of Exclusive Control or the equivalent triggering action. In practice, this may well prove to be the case; however, while experience of tri-party agreements exists in other markets, in the OTC derivatives market these arrangements have not been extensively tested in default situations. There is some remaining question as to how they would perform, particularly in the event that the tri-party agreement includes provisions that could result in delay of the transfer of assets (e.g., dispute rights for either party, hold periods, etc.). It is also noted that the lack of standardized documentation and key terms and conditions in these tri-party agreements can also lead to idiosyncratic variability of outcomes. Implementation of Recommendations 10 and 11 in this paper would ameliorate these concerns raised by bespoke agreements.

[C5] End User recovery of IA in the event of a dealer's insolvency will depend on several factors, including the relevant jurisdiction under which the insolvency will be managed and the entity holding the IA. In the USA, for certain entities, notably banks and broker-dealers the special insolvency regimes applicable may yield relatively faster recovery of some or all of the End User's clearly segregated IA, as compared to the rules in some other jurisdictions or for other entities. If IA can be characterized as a customer asset and thus fall within applicable client asset protection rules (for example, in the UK under CASS 6), then this too may yield relatively faster recovery of some or all of the End User's IA. Therefore to understand this variability, it is critically important that the parties analyze the applicable laws of the relevant jurisdictions and make appropriate risk-based decisions regarding the IA holding structure that they select.

Annex D - Sample Amendment Language to Permit Segregation of Independent Amount Under the NY Law CSA

The following amendment languages are examples only and are not intended as templates being sponsored or endorsed by ISDA. If considering adding these suggested alternative structures into the document, one will need to do a comprehensive review to avoid unintended consequences and ambiguities; these examples are not intended to be an exhaustive treatment of all necessary changes to documentation.

Segregation of IA with a Custodian pursuant to a Triparty Control Arrangement

Example A – Netting IA Against VM. This example provides for netting of IA and VM and direct delivery of total IA to the Custodian by the End User or the Dealer, as applicable. For example, if VM owed to End User exceeds IA owed to Dealer, the net VM is posted by the Dealer to the End User and the IA is posted by the Dealer to the IA Custodian.

(i) ***Delivery Amount, Return Amount and Credit Support Amount***. Paragraph 3 of the [CSA] is amended by adding the following at the end thereof:

"Subject to sub-clauses (A) and (B) below, any Party B Independent Amount required to be Transferred by Party B to Party A shall be Transferred by Party B to an account at the IA Custodian, with such account held in the name of Party B and made subject to an account control agreement (in form and substance satisfactory to Party A, Party B and the IA Custodian) (the "***Control Agreement***") executed and delivered by Party A, Party B and such IA Custodian (such account, together with all of the securities, financial assets, cash and other property credited thereto from time to time, the "***IA Account***"). The delivery of any Party B Independent Amounts by Party B to the IA Custodian pursuant to the Control Agreement shall be deemed to be a Transfer of Independent Amounts to Party A pursuant to the terms of this Credit Support Annex.

(A) If Party A's Delivery Amount or Return Amount, as the case may be, on any Valuation Date is equal to or greater than the Party B Independent Amount, then (x) that portion of Party A's obligation to Transfer to Party B Eligible Credit Support in respect of such Delivery Amount or Return Amount, as the case may be, up to an amount equal to the Party B Independent Amount shall be satisfied by Party A's Transfer of Eligible Credit Support with a Value at least equal to such amount to the IA Account at the IA Custodian and (y) any remaining Delivery Amount or Return Amount, as the case may be, applicable to Party A shall be Transferred to Party B in accordance with Paragraph 4 of the CSA.

(B) If the Party B Independent Amount on any Valuation Date is greater than Party A's Delivery Amount or Return Amount, as the case may be, then (x) that portion of Party B's obligation to Transfer to Party A Eligible Credit Support in respect of such Party B Independent Amount equal to Party A's Delivery Amount or Return Amount, as the case may be, shall be satisfied by Party A's Transfer of Eligible Credit Support with a Value at least equal to such amount to the IA Account at the IA Custodian and (y) an amount equal to any remaining Party B Independent Amount shall be Transferred by Party B to the IA Account at the IA Custodian."

Example B – Separate Cash Flows for IA and VM. This example provides for two separate cash flows for IA and VM and direct delivery of IA to the Custodian by the End User. For example, if VM is owed to End User and IA is owed to Dealer, these amounts are treated separately and the VM is posted by the Dealer to the End User and the IA is posted by the End User to the IA Custodian.

(i) ***Delivery Amount, Return Amount and Credit Support Amount.*** Paragraph 3(a) and (b) of the CSA are deleted in their entirety and replaced with the following:

(a) ***Delivery Amount***. Subject to Paragraphs 4 and 5, (I) upon a demand made by the Secured Party on or promptly following a Valuation Date, if the Credit Support Delivery Amount for that Valuation Date equals or exceeds the Pledgor's Credit Support Minimum Transfer Amount, then the Pledgor will Transfer to the Secured Party, Eligible Credit Support having a Value as of the date of Transfer at least equal to the Credit Support Delivery Amount (rounded pursuant to Paragraph 13) and (II) upon a demand made by the Secured Party on or promptly following a Valuation Date, if the Independent Delivery Amount for that Valuation Date equals or exceeds the Pledgor's Independent Minimum Transfer Amount, then the Pledgor will Transfer to the IA Custodian Eligible Credit Support having a Value as of the date of Transfer at least equal to the Independent Delivery Amount (rounded pursuant to Paragraph 13). As used otherwise in Paragraph 13, the ***"Delivery Amount"*** applicable to the Pledgor for any Valuation Date means the Credit Support Delivery Amount, the Independent Delivery Amount or both, as applicable, each as defined below.

"***Credit Support Delivery Amount***" will equal the amount, if any, by which

(A) the Secured Party's Exposure for that Valuation Date *minus* the Pledgor's Threshold

exceeds

(B) the Value as of that Valuation Date of all Posted Credit Support held by the Secured Party other than on account of Independent Amounts

provided, however, that the Credit Support Delivery Amount will be deemed to be zero whenever the calculation of Credit Support Delivery Amount yields a number less than zero.

"***Credit Support Minimum Transfer Amount***" means (i) with respect to Party A, [X] and (ii) with respect to Party B, [X].

"***Independent Delivery Amount***" will equal the amount, if any, by which

(X) the sum of all Independent Amounts applicable to the Pledgor *minus* the sum of all Independent Amounts applicable to the Secured Party, if any

exceeds

(Y) the Value as of the Valuation Date of all Posted Credit Support Transferred to the IA Custodian solely on account of Independent Amounts and not Transferred to the Pledgor;

provided, however, that the Independent Delivery Amount will be deemed to be zero whenever the calculation of Independent Delivery Amount yields a number less than zero.

"***Independent Minimum Transfer Amount***" means (i) with respect to Party A, [X] and (ii) with respect to Party B, [X].

(b) ***Return Amount***. Subject to Paragraphs 4 and 5, (I) upon a demand made by the Pledgor on or promptly following a Valuation Date, if the Credit Support Return Amount for that Valuation Date equals or exceeds the Secured Party's Credit Support Minimum Transfer Amount, then the Secured Party will Transfer to the Pledgor, Posted Credit Support specified by the Pledgor in that demand having a Value as of the date of Transfer at least equal to the Credit Support Return Amount (rounded pursuant to Paragraph 13) and (II) upon a demand made by the Pledgor on or promptly following a Valuation Date, if the Independent Return Amount for that Valuation Date equals or exceeds the Secured Party's Independent Minimum Transfer Amount, then the Secured Party (directly or through the IA Custodian) will Transfer to the Pledgor, Posted Credit Support specified by the Pledgor in that demand having a Value as of the date of Transfer at least equal to the Independent Return Amount (rounded pursuant to Paragraph 13). As used otherwise in Paragraph 13, the "***Return Amount***" applicable to the Secured Party for any Valuation Date means the Credit Support Return Amount, the Independent Return Amount or both, as applicable, each as defined below:

"***Credit Support Return Amount***" will equal the amount, if any, by which

(A) the Value as of that Valuation Date of all Posted Credit Support held by the Secured Party other than on account of Independent Amounts

exceeds

(B) the Secured Party's Exposure for that Valuation Date *minus* the Pledgor's Threshold

provided, however, that the Credit Support Return Amount will be deemed to be zero whenever the calculation of Credit Support Return Amount yields a number less than zero.

"***Independent Return Amount***" will equal the amount, if any, by which

(X) the Value as of that Valuation Date of all Posted Credit Support Transferred to the IA Custodian solely on account of Independent Amounts and not Transferred to the Pledgor;

exceeds

(Y) the sum of all Independent Amounts as of that Valuation Date applicable to the Pledgor *minus* the sum of all Independent Amounts applicable to the Secured Party, if any

provided, however, that the Independent Return Amount will be deemed to be zero whenever the calculation of Independent Return Amount yields a number less than zero.

(c) **No offset**. For the avoidance of doubt, Transfers required between the parties on the same Valuation Date on account of a Credit Support Delivery Amount or a Credit Support Return Amount, as applicable, on the one hand, and an Independent Delivery Amount or an Independent Return Amount, as applicable, on the other hand, will not offset each other.

Example C – Other Provisions. The following sample provisions address other aspects of the CSA that parties may choose to amend in order to address the segregation of IA (e.g., interest, rehypothecation, and investments of cash by the IA Custodian in order to distinguish IA from other property of the IA Custodian).

(i) ***Eligible Credit Support***. Other Eligible Support shall include [Money Market Mutual Funds] identified in the Control Agreement as permitted investments in which Posted Credit Support held in the IA Account has been invested, notwithstanding anything to the contrary in Paragraph 13(b). The Value of [Money Market Mutual Funds] that are Other Eligible Support shall be the value assigned by the IA Custodian.

(ii) ***Eligibility to Hold Posted Collateral; Custodians***.

(iii) ***Use of Posted Collateral***. Clause (ii) of Paragraph 13(g) of the CSA is hereby amended to add the following at the end thereof;

"The provisions of Paragraph 6(c) will not apply to Party A with respect to Posted Collateral that is held in the IA Account."

(iv) ***Distributions and Interest Amount***. Clause (i) of Paragraph 13(h) of the CSA is hereby amended by adding the following sentence at the end thereof:

"Party A shall have no obligation to pay interest or to Transfer Distributions to Party B for Posted Credit Support held in the IA Account."

(v) ***Determining Event of Default***. [Consider adding language to address whether a party can be subject to an Event of Default based on the actions or inactions of the Custodian and how the risk of failure/error by the custodian is allocated.]

(vi) ***Definitions***.

"IA Custodian" means, [X]. For example, in the CSA a Custodian is viewed as acting for the Secured Party, which may create technical problems in the document; needs to be addressed if a pure third party arrangement is desired.

"Money Market Mutual Funds" means [X].

"Party B Independent Amount" means, on any Valuation Date, the aggregate of all Independent Amounts applicable to Party B *minus* the Value of Posted Collateral credited to the IA Account.

[Consider addressing whether control agreement is a credit support document]

[Consider addressing notice of exclusive control here, in triparty agreement or both]

Example D – ISDA User's Guide Language. This language merely provides for no netting of IA and VM; it does not address segregation of IA.

Separating IA from MTM collateral amounts - as set out in Appendix C of ISDA's "User's Guide to the 1994 ISDA Credit Support Annex"

MODIFICATIONS TO ELIMINATE OFFSET OF INDEPENDENT AMOUNTS

Some parties may wish to (i) modify the Credit Support Amount formula to eliminate the subtraction of Independent Amounts applicable to the Secured Party as a Pledgor from the calculation of Credit Support Amount (see clause (iii) of the definition of "Credit Support Amount") and (ii) add a provision to Paragraph 3 of the Annex which prohibits offset, so that parties can be fully secured both with respect to their Exposure and in connection with any Independent Amounts applicable to their counterparty. This approach may result in each party's holding Posted Credit Support as a Secured Party simultaneously. For example, one party may hold Posted Credit Support as security for the Independent Amounts applicable to the other party and the other party may hold Posted Credit Support because its Exposure to the first party has given rise to a demand for a Delivery Amount. Parties wishing to achieve this result should add the following provisions to Paragraph 13 (under subparagraphs (b) and (m), as appropriate):

"Credit Support Amount" means, for any Valuation Date (i) the Secured Party's Exposure for that Valuation Date plus (ii) the aggregate of all Independent Amounts applicable to the Pledgor, if any, minus (iii) the Pledgor's Threshold; provided, however, that (x) in the case where the sum of the Independent Amounts applicable to the Pledgor exceeds zero, the Credit Support Amount will not be less than the sum of all Independent Amounts applicable to the Pledgor and (y) in all other cases, the Credit Support Amount will be deemed to be zero whenever the calculation of Credit Support Amount yields an amount less than zero.

Additions to Paragraph 3. The following subparagraph (c) is hereby added to Paragraph 3 of this Annex:

(c) No offset. On any Valuation Date, if either (i) each party is required to make a Transfer under Paragraph 3(a) or (ii) each party is required to make a Transfer under Paragraph 3(b), then the amounts of those obligations will not offset each other.

The prohibition against offset contained in Paragraph 3(c) is intended to clarify that a credit support obligation in favor of a party, as Secured Party, is not to be offset against a credit support obligation arising in connection with an Independent Amount applicable to that same party, as Pledgor. The following example illustrates this prohibition against offset:

If on or promptly following a Valuation Date--

(i) Party A Transfers $10 to Party B in connection with an Independent Amount applicable to it as a Pledgor; and

(ii) Party B Transfers $50 to Party A pursuant to the amount of Party A's Exposure; and on a subsequent Valuation Date-

(iii) the Value of Posted Credit Support held by Party B has decreased to $9; and

(iv) the Exposure of Party A has increased to $70; then,

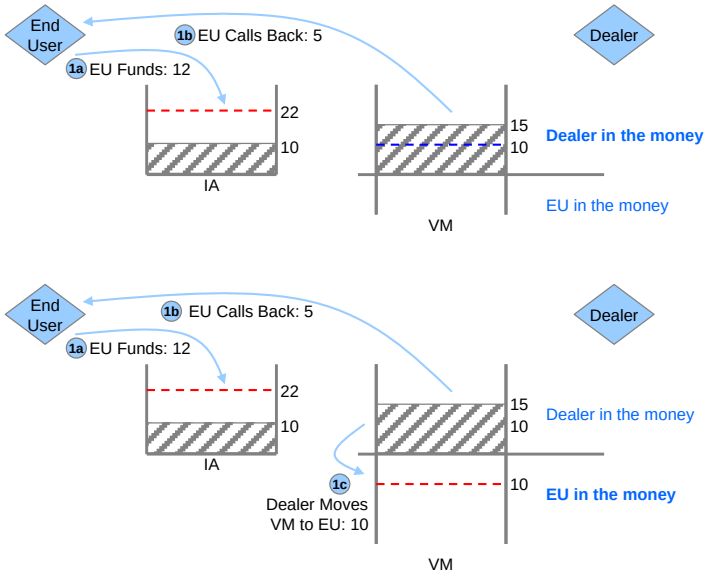
if the offset of these obligations--

(a) was permitted, there would exist only one credit support obligation of Party B to Transfer $19 to Party A (thereby leaving each of Party A and Party B undersecured by $1).

(b) was not permitted, there would exist one credit support obligation of Party B to Transfer $20 to Party A and one credit support obligation of Party A to Transfer $1 to Party B (thereby leaving each of Party A and Party B fully secured).

Annex E - Models for Handling IA and VM Movement as Separate Pools of Collateral

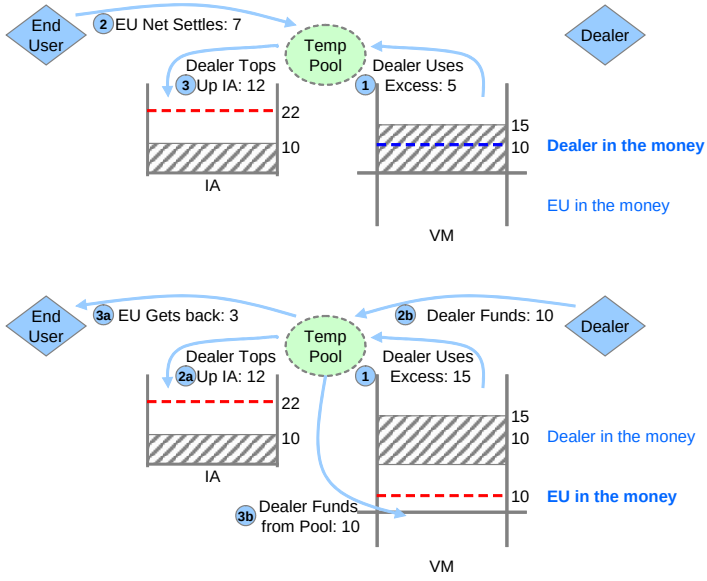
I. Independently refill or drain the IA and VM pools



Cons
- Fund gross (i.e. 12)
- Call back excess (i.e. 5)
- Flow may be asynchronous
- May have to settle to 2 locations

Pros
- Simple

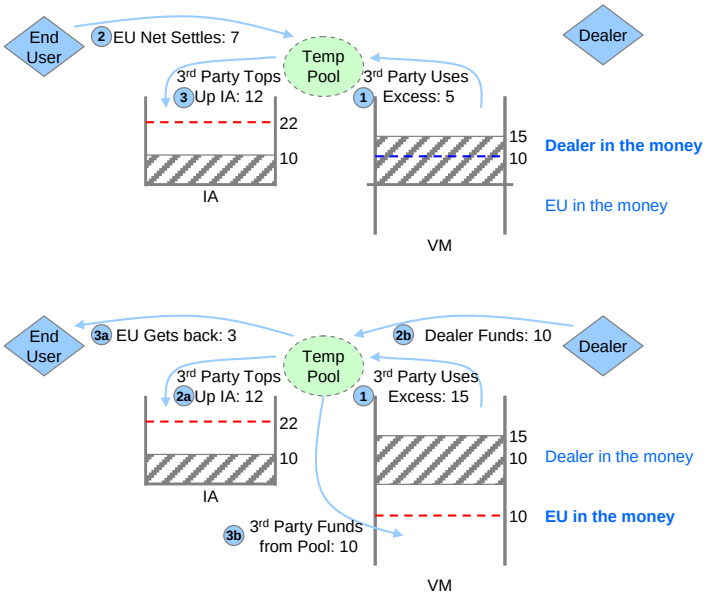
II. Temporary Pool Operated by Dealer: Dealer receives all collateral temporarily and reallocates



Cons
- Transient dealer risk if dealer fails while assets are in the temporary pool

Pros
- EU settles to 1 location always
- Net settle
- Admin is centralized with dealer

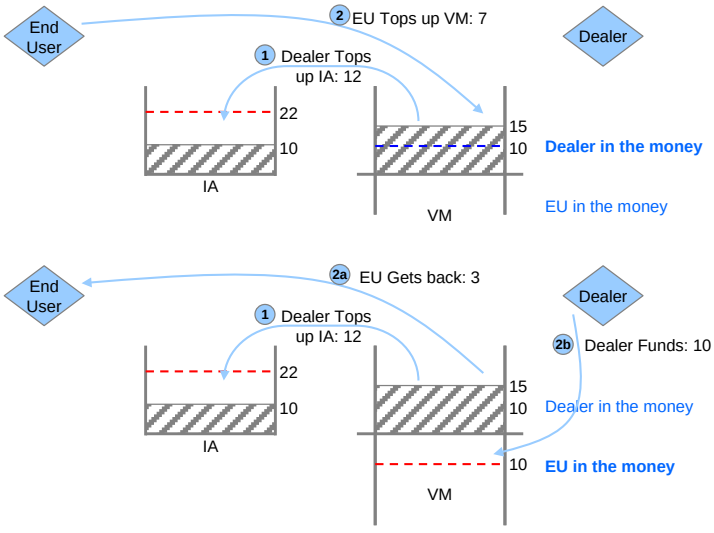
III. Temporary Pool Operated by an Independent Facilitator (Could be the Tri-Party Agent if under the Tri-Party structure, but might be another 3rd party)



Cons
- Cost
- Tri-Party risk to Dealer

Pros
- Removes Con in Model II

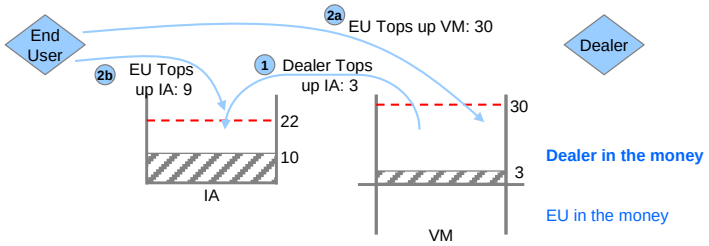
IVA. Dealer preferentially tops up IA from VM to ensure full IA coverage, and then gets VM refilled by client



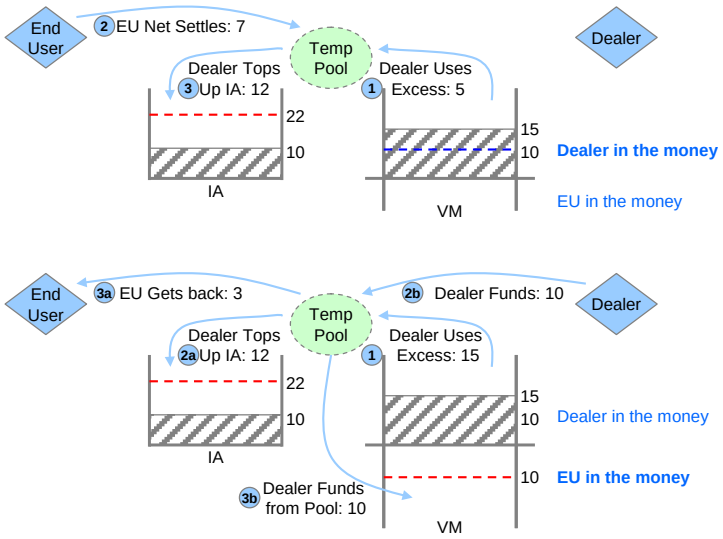
Cons
- VM may be deficient until refilled (dealer prefers to hold collateral in VM pool over IA pool)
- EU may have to settle to 2 locations or 1 location

Pros

If VM is insufficient to top up IA, then End User also settles to IA account. Example:



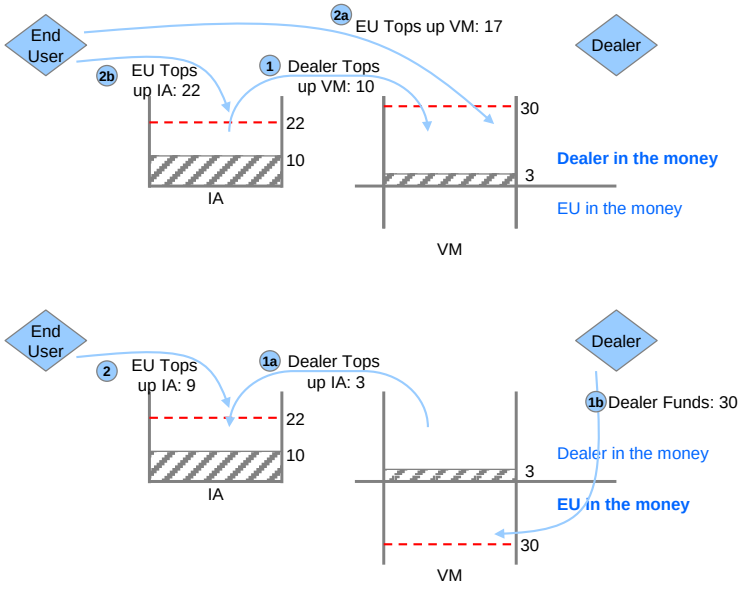
IVB. Utilizing a Temp Pool, Dealer preferentially tops up IA from VM to ensure full IA coverage, and then gets VM refilled by client



Cons
- VM may be deficient until refilled (dealer prefers to hold collateral in VM pool over IA pool)

Pros
- EU settles to 1 location always
- Net settle
- Admin is centralized with dealer

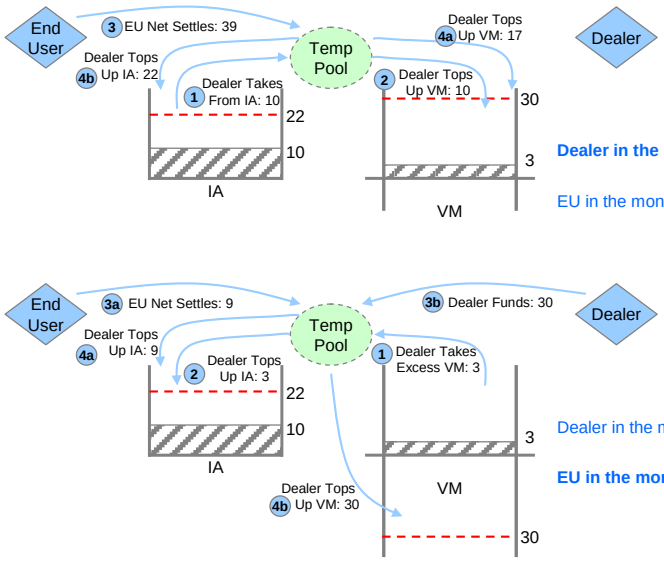
VA. Dealer preferentially tops up VM from IA to ensure full VM coverage, and then gets IA refilled by client



Cons
- EU may have to settle to 2 locations or 1 location

Pros
- VM is always filled up
- Maximizes rehypothecable amount
- Minimizes IA risk

VB. Utilizing a Temp Pool, Dealer preferentially tops up VM from IA to ensure full VM coverage, and then gets IA refilled by client



Dealer in the money

EU in the money

Dealer in the money

EU in the money

Cons

Pros

- VM is always filled up
- Maximizes rehypothecable amount
- Minimizes IA risk
- EU settles to 1 location always
- Net settle
- Admin is centralized with dealer

Annex F - Summary of Recommendations

Recommendation 1: Collateral taken under title transfer forms of collateral agreement should not be segregated or have any similar limitation on the receiving party's ability to freely use the collateral, for it is legally the receiving party's own property. (See page 13)

Recommendation 2: Collateral that is intended to be segregated should be governed by a security interest form of collateral agreement. Parties may consider utilizing hybrid title transfer / security interest documentation arrangements. Parties may wish to research legal issues associated with the operation and enforcement of hybrid arrangements. (See page 13)

Recommendation 3: Unless otherwise required by law or regulation, unrestricted Direct Dealer Holding of IA should continue to be an available option between a pair of counterparties that are willing to accept the risks associated with such a holding arrangement. Dealers should consider the optional use of a risk disclosure statement (see example at Annex B) for certain counterparties[1]. (See page 14)

Recommendation 4: Both Dealers and End Users should consider a range of alternative holding arrangements for IA that include features designed to manage for both parties the risks and benefits associated with IA. Legal advice in respect of the risks and benefits of the various structures in the relevant jurisdictions is highly recommended. These may include, but are not limited to, the IA holding arrangements described below. When negotiating a CSA, the counterparties should mutually agree the particular IA holding structure in accordance with Recommendation 9 below. (See page 14)

Non-Exclusive List of Alternative Security Interest IA Holding Arrangements

- Segregated Direct Dealer Holding of IA[2]
  - IA is delivered by the End User directly to the Dealer. The Dealer is required to segregate the IA from their own assets and those of unconnected third parties on their books and records. The dealer is not permitted to rehypothecate the IA. The Dealer may invest cash or lend securities as contractually agreed for the benefit of the End User.
- Segregated Dealer Affiliate[3] Holding of IA[4]
  - IA is delivered by the End User to an Affiliate of the Dealer, and held pursuant to a contract between the Dealer and its Affiliate. The Dealer and the Affiliate are both required to segregate the IA from their own assets and those of unconnected third parties on their books and records. The Dealer and the Affiliate are not permitted to rehypothecate the IA. The Dealer may invest cash or lend securities as contractually agreed for the benefit of the End User.
- Third Party[5] Custodian of Dealer Holding of IA[6]
  - IA is delivered by the End User to a Third Party Custodian that is appointed by and subject to a bilateral contract with the Dealer. The Dealer may not hold IA directly, but instead the Third Party Custodian holds the IA in an account that indicates the ownership interest of the End User in and the

[1] See also endnote 31
[2] See also endnote 32
[3] See also endnote 33
[4] See also endnote 34
[5] See also endnote 35
[6] See also endnote 36

security interest of the Dealer in all of the assets in the account. The Third Party Custodian is required to segregate the IA from its own assets and those of unconnected third parties on its books and records. The Dealer and the Third Party Custodian are not permitted to rehypothecate the IA. The Dealer and the Third Party Custodian may invest cash or lend securities as contractually agreed for the benefit of the End User.[7]

- Tri-Party Collateral Agent Holding of IA[8]
  - IA is delivered by the End User to a Tri-Party Collateral Agent that is under contract to the Dealer and the End User jointly[9]. The Tri-Party Collateral Agent will hold the IA in an account in the name of the End User, with a security interest granted to the Dealer in respect of the assets in such account[10]. The Tri-Party Collateral Agent is required to segregate the IA from its own assets and those of unconnected third parties on its books and records. The Dealer and the Tri-Party Collateral Agent are not permitted to rehypothecate the IA. The Dealer and the Tri-Party Collateral Agent may invest cash or lend securities as contractually agreed for the benefit of the End User.

Recommendation 5: ISDA should develop a standard form of amendment agreement that permits the parties to a New York Law CSA to accommodate treatment of segregated IA as a separate pool of collateral. This form of amendment could provide that either (i) IA and VM collateral pools are delivered separately, with two separate cash flows and no netting; or (ii) IA and VM are netted (see Annex D). This should be a point of negotiation between contracting parties. (See page 15)

Recommendation 6: As sufficient industry experience and feedback on the foregoing proposals emerges over time, ISDA should consider updating its range of collateral legal opinions to take account of the above documentation changes. (See page 15)

Recommendation 7: Parties should consider who should bear the risk of loss in the event of the insolvency of an independent Tri-Party Collateral Agent, and ensure that this responsibility is clearly documented between them. (See page 17)

Recommendation 8: All parties should, subject to local law requirements, continue to be able to hold collateral to cover VM free of any segregation requirement, restriction on rehypothecation or other limitation[11]. When using the English Credit Support Deed, parties should consider whether the arrangement constitutes a "security financial collateral arrangement" and, if so, whether it is preferable to amend the Deed to permit rehypothecation and remove the requirement to segregate or whether the English Credit Support Annex should be used for VM. (See page 17)

Recommendation 9: The parties to an OTC derivative contract should be free to contract bilaterally for the IA approach that best suits the facts and circumstances that exist between them. (See page 18)

Recommendation 10: End Users and Dealers contemplating collateral agreements containing IA terms should each evaluate carefully the risks, costs, limitations and risk mitigation effectiveness of the proposed IA holding structure, taking such legal or other professional advice as they

[7] See also endnote 37
[8] See also endnote 38
[9] See also endnote 39
[10] See also endnote 40
[11] See also endnote 46

consider appropriate. A party should not enter into a collateral agreement that they consider to be unsuitable for themselves. (See page 18)

Recommendation 11: In those jurisdictions where there exist concerns, national legislators and financial supervisors[12] should amend statutes and rule-makings to ensure that derivatives collateral held by a non-defaulting secured party is not subject to stay, attachment or other enforcement delay in bankruptcy, and also that excess derivatives collateral held by a defaulting secured party is promptly returned to the pledgor. We note that such an initiative took place in Europe by virtue of the European Financial Collateral Directive. (See page 18)

Recommendation 12: ISDA, SIFMA, MFA, and market participants[13] should expeditiously work together to develop standard provisions that may be incorporated into documents for Third Party Custodian and Tri-Party Collateral Agent IA holding arrangements. Consideration should be given to applying these standard provisions to the holding of IA by Dealer Affiliates also, where applicable. (See page 18)

[12] See also endnote 47
[13] See also endnote 48

NOTES FOR PART I

[1] Independent Amounts can be used under any of the ISDA Credit Support Annexes. For illustration purposes, in this document we will mainly refer to the 1994 version according to New York law, except as otherwise stated.

[2] It should be noted that this definition of Credit Support Amount is the standard one provided in the boilerplate CSA language. Counterparties occasionally modify the language bilaterally, including one type of modification that causes the Pledgor to deliver no less than the sum of all Independent Amounts; this differs from the standard formulation above by removing the so-called "netting" effect whereby an increasingly negative exposure for the Secured Party (i.e. the Secured Party is out-of-the-money on the underlying derivative contracts) reduces and then eventually eliminates the need for the Pledgor to deliver Independent Amounts. The alternative formulation is set out in Appendix C to the User's Guide to the 1994 ISDA Credit Support Annex. It is used on some occasions where a Dealer requires to hold IA amounts even where the net mark-to-market of the portfolio is negative, which under the standard boilerplate CSA terms would reduce, eventually to zero, the IA posted by the End User. Under the CSA standard netting approach, the End User's entitlement to require a Dealer to post collateral to cover Exposure when the Dealer is out-of-the-money is reduced by the End User's IA - so the End User ends up holding an insufficient amount of collateral to cover Exposure by an amount equal to the End User's IA.

[3] The equivalent definition under the 1995 ISDA Credit Support Annex English Law version is: "(i) the Transferee's Exposure plus (ii) all Independent Amounts applicable to the Transferor, if any, minus (iii) all Independent Amounts applicable to the Transferee, if any, minus (iv) the Transferor's Threshold".

[4] For these purposes we ignore certain esoteric scenarios where both parties may be Secured Party and Pledgor at the same time, and also scenarios where no collateral has yet moved under the agreement. Note also that under the English Law version of the CSA the term "Secured Party" is replaced by "Transferee", and "Pledgor" becomes "Transferor".

[5] Technically the definition of Exposure refers to the amount, if any, that would be payable to a party that is the Secured Party by the other party (expressed as a positive number) or by a party that is the Secured Party to the other party (expressed as a negative number)… as if all Transactions (or Swap Transactions) were being terminated as of the relevant Valuation Time; … using estimates at mid-market of the amounts that would be paid for Replacement Transactions. Where termination of the portfolio occurs and neither party is the affected party, that means that the values ascribed to trades being terminated are those measured at the mid-point of the market, in other words half-way between the bid and the offer values that would be used if one of the parties were the affected party (i.e. in default). Interestingly, the definition of Exposure also includes any due but unpaid amounts between the parties - these would be part of the termination calculation, of course. This would include both payments ordinarily in transit between the parties, and also failed payments past due and currently unsettled. General market practice is currently not to include unpaid amounts in collateral calculations, although this topic has been raised within industry forums and market practice may be amended in the future.

[6] Paragraph 13 in the NY law CSA; or Paragraph 11 in the English law CSA.

[7] For completeness, it should be noted that the CSA contains another term in the collateral computation, known as the Minimum Transfer Amount or MTA. The parties may agree any level of MTA, which sets a lower limit on the amount of collateral that will be transferred between the parties at any point in time. The purpose is to allow the parties to prevent the movements of small amounts of collateral that are of *de minimus* credit risk protection benefit but of high operational risk and nuisance value. Generally MTAs are small compared to thresholds, and they can be zero where the parties' intent is to move every dollar of collateral every day. The CSA also contains a Rounding term, which is of even smaller effect typically, and used to round collateral movements to the nearest sensible size of unit (often the nearest $1,000 or $10,000). Neither MTA nor Rounding are further considered in this paper.

[8] The provision for IAs can be found in confirmations or the Credit Support Annex to the ISDA Master Agreement.

[9] As discussed below, the portion of collateral representing Exposure is often not subject to the same risk of loss upon a default by the party holding such collateral (assuming Exposure has been determined accurately and market prices do not move significantly against the defaulting party following default).

[10] These terms include Minimum Transfer Amount and Rounding amount in the CSA documents.

[11] It is important to note that the determination of the Settlement Amount upon the declaration of any Early Termination Date under the ISDA Master Agreement may also require that mid-market valuations be used, for example upon the occurrence of a Termination Event where both parties are "Affected Parties".

[12] It is noted that both parties are subject to these risks, regardless of the type of party or whether or not IA is posted.

[13] If the End User is significantly more creditworthy than the Dealer, the Independent Amount may be paid by the Dealer to the End User, although this is rare. Independent Amounts are rarely if ever used between Dealers.

[14] Notwithstanding challenges as to validity or common law or contractual set off with amounts due elsewhere between the insolvent party and the counterparty

[15] Strictly speaking the Lehman case remains on-going so it is not definitively known what losses, if any, will have been suffered by counterparties. However, at the time of writing unsecured general creditor claims against the Lehman estate were trading at under 20 cents on the dollar, implying significant losses will be realized when the final distribution to creditors eventually occurs.

[16] It is possible that the IA posted to a Dealer that becomes insolvent may not all be excess collateral. For example, there may be unreconciled or unconfirmed deals between the parties or there may be operational issues on any given day that mean the VM called is inaccurate.

[17] Rehypothecation rights are included in the standard ISDA CSA documents according to New York law in Paragraph 6(c), and are either given effect or disapplied according to the election of the parties made in Paragraph 13(g)(ii). Under the English law version of the documents, there is no such grant of rehypothecation rights because the document is fundamentally based on the transfer of title occurring when collateral is delivered. Unlike rehypothecation rights under Paragraph 6(c) of the New York law document, the title transfer underpinning the English law CSA cannot be disapplied. This presents particular issues with IAs delivered under an English law CSA, which are dealt with in Section 6 of this paper.

[18] The ISDA Credit Support Deed (an English law security interest form of collateral document) contemplates that collateral shall not be rehypothecated and that it will be held in a segregated account. Under the UK FSA rules on Client Assets (CASS 6), where the secured party does not have the right to rehypothecate collateral subject to a security interest, the secured party is obliged to hold the assets as if they are client assets, and thus the collateral is subject to a wide range of protections not applicable to collateral delivered under a title transfer agreement or a security interest with rehypothecation rights agreement.

[19] The close out sequence under the ISDA Master Agreement is that (a) the agreement is terminated, (b) the termination payment is calculated according to the procedures set forth in the Master Agreement, (c) any termination payment and other amounts (i.e. unpaid amounts) are netted against posted collateral (noting that the entire pool of collateral is available for this purpose – IA and VM are not separately distinguished for this purpose), and then (d) after netting and any applicable common law set off rights have been exercised a determination is made whether any amount is owed or owing and by which party. However, it should be noted that where the Secured Party is the Defaulting/ Affected Party, the Defaulting/ Affected Party is required to immediately return collateral to the non-defaulting Party. See Para 8(b) of the New York Law CSA.

[20] Custodians and tri-party collateral agents are generally banks, either commercial banks or the underlying bank entities that operate central securities depositories. There may, however, be other non-bank entities that now or in the future operate such services. It should be noted that additional protection may exist when utilizing bank provided solutions, e.g. FDIC insurance (subject to the limits on such protection). Further due diligence is required to provide assurances that affiliated regulated custodians provide the same protection to End Users as unaffiliated regulated custodians.

[21] This could be established via a legal opinion from an independent law firm supporting non-consolidation of the trading counterparty entity and the affiliated custodian, for example based on the fact pattern that the custodian is a regulated entity subject to a separate insolvency regime.

[22] The FSA Handbook sections 3 and 6 (Client Asset or CASS) includes several provisions that can provide protection for firms posting IA. See Annex A for more information.

[23] The Securities Investor Protection Act (SIPA) is codified in Title 15 of the United States Code at Sections 78aaa - 111. The SIPA created the SIPC, a nonprofit, private membership corporation to which most registered brokers and dealers are required to belong. 15 U.S.C. § 78ccc. The SIPC fund, providing customer protection, is authorized under 15 U.S.C. § 78ddd(a), and assessments against members are authorized by 15 U.S.C. §§ 78ddd(c) and (d). The fund is designed to protect the customers of brokers or dealers subject to the SIPA from loss in case of financial failure of the member. The fund is supported by assessments upon its members. If the fund should become inadequate, the SIPA authorizes borrowing against the U.S. Treasury. An analogy could be made to the role of the

Federal Deposit Insurance Corporation in the banking industry. The insurance coverage provided in this manner is strictly limited in size and does not apply to all dealers (e.g. foreign dealers).

[24] Tri-party collateral agent holding of OTC derivative collateral and the well-established Tri-party repo market have some similarities but a comparative analysis of the two markets is beyond the scope of this paper. One crucial difference is the legal nature of the collateral arrangement under-pinning the repo market, which is title transfer. There is also no equivalent IA term in the repo market, instead the parties agree to "haircuts" on the purchase prices, which take into account volatility in the underlying securities being sold in the repurchase transactions. Because of these conceptual differences in the repo market, it is difficult to draw comparisons to the OTC derivative market.

[25] Under the Uniform Commercial Code (articles 8 and 9) adopted by most states in the USA and applicable to most types of counterparty, the essential step of perfecting a security interest is to take control over the collateral. In other jurisdictions there may additionally be filings or registrations that must be made to accomplish a perfected security interest. This is a highly complex area of law and readers are advised to take appropriate legal advice from qualified counsel.

[26] Primarily this would be the Credit Support Annex under New York Law. It also includes the Credit Support Deed under English law, although this document is very rarely used in practice.

NOTES FOR PART II

[27] For example, two parties might use an English Law Credit Support Annex (title transfer mechanism) modified to define Exposure to be just the VM element of the overall collateral requirement, plus a parallel English Law Credit Support Deed (pledge mechanism) correspondingly modified to define Exposure to be just the IA element. Collateral relating to the VM would thus be fully subject to title transfer provisions, with no restriction on the receiving party; collateral relating to the IA would be segregated, not rehypothecable and potentially covered by investor protection rules (such as the UK FSA's CASS 6) where relevant in the jurisdictions concerned.

[28] As of November 9, 2009 there are ISDA collateral legal opinions available for the following 43 jurisdictions: Australia, Austria, Bahamas, Belgium, Bermuda, British Virgin Islands, Canada, Cayman Islands, Channel Islands (Guernsey), Channel Islands (Jersey), Czech Republic, Denmark, England, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Luxembourg, Malaysia, Mexico, Netherlands, New Zealand, Norway, Philippines, Portugal, Scotland, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United States. For further information, please refer to www.isda.org, under "Opinions and Legislation".

[29] ISDA Collateral Committee estimate. For context, the ISDA 2009 Margin Survey reported that as of December 31, 2008 there were approximately 151,000 collateral agreements in use in the OTC derivative markets. Many of these agreements do not contain IA provisions, although there is no market data on how many do so - IA is a privately negotiated term between each pair of counterparties. It should be noted that these extant agreements and the transactions under them are not necessarily completely addressed by current proposals for OTC derivative clearing, meaning that even after the adoption of central clearing these collateral agreements will likely remain in force for at least a portion of the transaction population.

[30] Use of the security interest English Law Credit Support Deed (CSD) has historically been limited, due to the preference in the UK and European markets for the title transfer English Law Credit Support Annex. However, it should be clarified that where a party uses the CSD, then Direct Dealer Holding of IA without any restrictions cannot apply as a matter of English law. Segregation is necessary as a matter of law to establish the security interest, even if "right of use" under the FCAD is subsequently permitted. Also, unless a right of use is exercised, segregation is necessary as a regulatory matter (see earlier remarks on CASS6 in Annex A). The CSD is drafted to require segregation of securities collateral and to prohibit rehypothecation. Substantial drafting amendments are necessary to implement the right of use contemplated by the UK regulations implementing the FCAD.

[31] Dealers should apply their own risk management judgment in deciding which parties, if any, should receive such risk disclosures. The OTC derivative market is a sophisticated market for complex products oriented towards professional investors and risk managers who are expected to understand the risks for such products, including the risks associated with IA.

[32] In this structure there is no third party involved, however traceability of collateral is established by proper segregation on the books and records of the Dealer, in practice backed up by provision of relevant account numbers, statements and other documentation to the End User that would assist in evidencing the status of the assets back to the fungible pool of like securities and not necessarily the specific security originally pledged*. The Dealer has no rights of rehypothecation, except in the limited sense of any arrangement that may be contractually agreed with the End User by which cash may be swept into investment vehicles, or securities may be lent through a securities lending or repo

arrangement. In the event of enforcement of the secured party's rights against the collateral, the Dealer has full possession and control of the assets and can seize and liquidate them. (*This is a technical point that goes to the fundamentals of how securities are held in dematerialized book entry form. Although a complete discussion of this issue is out of scope for this paper, the essential point is that all similar securities eventually trace back to a master record on some defined repository where the book entries are maintained. Often there will be multiple layers of custodial holding structure for securities, each with their own books and records but in turn aggregating to higher levels until the ultimate depository record is reached. In the situation of trying to trace assets caught in an insolvency, if the particular assets are unique at the level of the relevant layer in the holding structure then it may be possible to identify those securities explicitly. However, if there are several examples of holdings of similar securities at that relevant layer, then one holding may be indistinguishable from other holdings. Hence traceability in this scenario extends only as far as the pool of similar securities. If the sum of all claims on that pool is equaled by the pool size, then this distinction between specific security and the pool of similar securities may be academic; however if the pool contains fewer than the total claims, then typically each claim will be for a pro rata share of the pool of similar securities. Not only is this a technical and esoteric area of the securities market, but it is also a complex area of bankruptcy law and laws may differ across jurisdictions - market participants are advised to seek qualified professional advice on such matters.)

33 "Affiliate" means an entity that for the purposes of the accounting standards applicable to the Dealer would be considered to be an affiliate company of the Dealer.

34 In this structure a third party is involved, but it is an Affiliate of the Dealer. The Affiliate may conduct business at arm's length from the Dealer and may be subject to a different regulatory regime (for example, in the United States the Dealer booking derivative trades and calling collateral may be a bank entity but it may contract its broker-dealer Affiliate to operate as custodian for the collateral assets). Even though the third party is affiliated to the Dealer, in the particular facts and circumstances there may be sufficient separation between the two as to provide comfort that upon the insolvency of the Dealer then (a) the insolvency of the Affiliate is not automatic and (b) if the Affiliate were also insolvent, then the statutory protections and liquidation regime applying to the Affiliate would provide an adequate measure of protection to the End User. Traceability of collateral is established by proper segregation on the books and records of the Dealer and the Affiliate, in practice backed up by provision of relevant account numbers, statements and other documentation to the End User that would assist in evidencing the status of the assets back to the fungible pool of like securities and not necessarily the specific security originally pledged*. The Dealer and the Affiliate have no rights of rehypothecation, for their own benefit, although they may act in accordance with any arrangement that may be contractually agreed with the End User by which cash may be swept into investment vehicles, or securities may be lent through a securities lending or repo arrangement for the benefit of the End User. In the event of enforcement of the secured party's rights against the collateral, the Dealer has contractual and practical control over the Affiliate and thus can obtain possession of the assets on request and can then seize and liquidate them. (* See also Note 32)

35 "Third Party" means an entity that is not an Affiliate of either the End User or the Dealer principals to a transaction under the applicable accounting standards for each entity concerned.

36 In this structure a Third Party is involved, but under contract to the Dealer - there is no privity of contract between the Custodian and the End User. Traceability of collateral is established by proper segregation on the books and records of the Dealer and also on the books and records of the Custodian. These measures are in practice backed up by provision of relevant account numbers, statements and other documentation to the End User that would assist in evidencing the status of the assets back to the fungible pool of like securities and not necessarily the specific security originally pledged*. The Dealer has no rights of rehypothecation, for their own benefit, although they may act in accordance with any arrangement that may be contractually agreed with the End User by which cash may be swept into investment vehicles, or securities may be lent through a securities lending or repo arrangement for the benefit of the End User. The Custodian has very limited rights with respect to the collateral, essentially only in the event of non-payment of fees and in some cases in respect of advances made by the custodian in anticipation of incoming but as-yet unsettled excess collateral; for example, advances in respect of distributions on the collateral (e.g. principal and interest or redemption payments on money-market fund interests) made in advance of the actual final physical settlement of such distributions. In the event of enforcement of the secured party's rights against the collateral, the Dealer has contractual control over the Custodian and therefore can obtain possession of the assets on request and can then seize and liquidate them. (* See also Note 32)

37 Correspondingly, End User could appoint a Custodian, subject to a bilateral contract with the End User, to hold IA and indicate the Dealer's interest in the account maintained by such Custodian.

38 In this structure a Third Party is involved, under a three-way contract with the Dealer and the End User. Traceability of collateral is established by proper segregation on the books and records of the Dealer and also on the books and records of the Tri-Party Collateral Agent. These measures are in practice backed up by provision of relevant account numbers, statements and other documentation to the End User that would assist in evidencing the status of the

assets back to the fungible pool of like securities and not necessarily the specific security originally pledged*. The Dealer has no rights of rehypothecation, for their own benefit, although they may act in accordance with any arrangement that may be contractually agreed with the End User by which cash may be swept into investment vehicles, or securities may be lent through a securities lending or repo arrangement for the benefit of the End User. The Tri-Party Collateral Agent has very limited rights with respect to the collateral, essentially only in the event of non-payment of fees and in some cases in respect of advances made by the custodian in anticipation of incoming but as-yet unsettled excess collateral. In the event of enforcement of the secured party's rights against the collateral, the Dealer typically must issue a notice of exclusive control to the Tri-Party Collateral Agent, who is then contractually required to turn over possession of the assets to the Dealer, who can then liquidate them. (* See also Note 32)

[39] Parties should consult with their legal advisors and any other advisors if they intend to use this structure in order to ensure that a valid security interest is created and negotiate the specified conditions, if any, applicable to the exercise of "control" in order to create a valid security interest.

[40] The account may either be in the name of the Dealer or in the name of the End User, depending on the position agreed between the parties. This example assumes that the account is in the name of the End User.

[41] For example, in the United States, the relevant statutes are the Securities Investor Protection Act (SIPA) and the Federal Deposit Insurance Act (FDIA). See also Note 23.

[42] For more information in the United States context, readers may wish to refer to a paper entitled "Are My Trust, Fiduciary and Custody Asset Safe?", which is published by the American Bankers Association (www.aba.com). Terminology and risk analysis may vary in other jurisdictions.

[43] The tri-party agreements typically do not distinguish between defaulting and non-defaulting parties. That is left to the underlying agreements.

[44] It may also be necessary to ensure that there is sufficient control for other purposes, such as ensuring that the security interest is a fixed rather than floating charge (under English law and some similar jurisdictions), and ensuring that the collateral arrangement falls within the scope of the European Financial Collateral Directive. A complete risk assessment would be required to confirm whether any particular arrangement is sufficient to establish the element of "control", or other perfection requirements, under applicable law.

[45] To explain, consider two parties A and B with a portfolio of derivatives between them. At some point in time, that portfolio has a net mark-to-market value of $100 in Party A's favor - meaning that the net present value of all the estimated future cashflows due between the parties would result in a payment of $100 from Party B to Party A. If this portfolio is covered by a collateral agreement, then Party B will deliver VM to Party A equal to $100 value (assuming no Threshold or IA requirement). Let us assume that Party A enjoys full rights of rehypothecation in respect of that collateral. Now suppose that Party A becomes insolvent. Party B will have a claim against the estate of Party A for return of $100 collateral and, assuming that markets have not moved and there are no additional losses associated with a closeout (*see* Section 3 of Part I of this paper for a discussion of residual risks associated with a close-out), an obligation to the estate of $100 representing the net present value of the derivative portfolio. Where set off applies, these amounts are offset and reduced to zero and each party is essentially made whole. Clearly the value of collateral and the value of the losses associated with a close-out will not match 100%. However, the key point is that there is not a significant need for VM to be segregated because protection is largely achieved through the right of set off.

[46] Where one of the parties to a collateral agreement is a mutual fund subject to the Investment Company Act of 1940, then the parties may be required to make special holding arrangements for all collateral, including VM, sometimes called "Assets Held Away". Typically in such circumstances the collateral remains at a custodian under contract to the mutual fund, and the dealer takes a security interest over certain assets. This is a complex and specialized area and beyond the scope of this paper to describe in detail. It is not intended that any of the recommendations in this paper should upset the current arrangement in this specialized segment of the market. Market participants are referred to SIFMA as the authority on this topic.

[47] It is important that any such reforms to create greater certainty should extend beyond the core bank and broker-dealer areas of the financial markets, and in particular cover entities subject to special regulation such as state-regulated insurance companies in the United States and more broadly public utilities, railroads other special classes.

[48] Dealers, End Users, Custodians, Tri-Party Collateral Agents, Depository operators and others as necessary.