Round Table Collateral Management: A Hot Topic for Asset Managers

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Objectives of the Round Table

Throughout the capital markets industry the onset of the credit crunch and, in particular, the failure of Lehman Brothers has led to a strong focus on counterparty risk. For Asset Managers in particular the failure of a bank previously identified as "too big to fail" has focused their attention on the management of this risk - an area in which they have traditionally been less experienced than the sell-side banks.

The use of collateral is standard amongst all actors in the Securities Lending / Borrowing and Repo markets and the activity in these sectors is already heavily industrialised. However the use of collateral to reduce the counterparty risk associated with OTC products, whilst being standard in the inter-bank market for many years, has only recently become a focus for asset managers.

The objective of the round table was to identify the key challenges facing asset managers in their use of collateral and there was a particular focus on the challenges associated with collateral for OTC derivatives.

Four themes were identified to provide a basis for the discussions:

- Operating Models in use for Collateral Management by Asset Managers
- The current options available for an outsourced solution
- The key factors in the successful implementation of a Collateral Management function
- The software solutions currently used in the marketplace

Participants

Credit Agricole Asset Management – France
Véronique Uzan, Head of Organization
Alain Fritsch, Head of Middle Office Trade Processing and Collateral

AXA IM – France
David Maire, Operations Support & Service Management

Dexia Investment Management – Belgium
Pascal Dequenne, Global Head of Middle Office

ING Investment Management – Netherlands
Arno de Ruig, Head of collateral desk within Operations

La Banque Postale Structured Asset Management – France
Serge Kouao, Head of Risk

BNP Paribas Securities Services – France
Laure Capron, Head of Treasury Liquidity Management Product Development

Bank Of New York Mellon – France
Staffan Ahlner, Managing Director, Head of Product and Sales
Michael Beraha, Country Executive France & Representative

Euroclear – Belgium
Cedric Gillerot, Director, Collateral Management Services
Fouad Estephan, Product Management

State Street – France
Boris Duclos, Head of Middle Office

Collateral Expert – Algorithmics – United Kingdom
Neil Murphy, Lead Consultant

Accenture – France & Belgium
Thomas Syrett, Senior Manager - Asset Management lead (France, Luxembourg, Netherlands, Belgium)
Hervé Dutot, Manager, responsible for Collateral implementations in France
Philippe Hijazin, Consultant, responsible for Collateral implementations in Belgium

Executive Summary

Whilst there are significantly different levels of maturity in the implementation of collateral management functions within Asset Managers, the general consensus is that a standardised industrial model is not yet in place for the management of OTC Collateral between Asset Managers and Investment Banks. All participants were looking to further industrialise / secure their collateral management functions where possible.

Despite this participants agreed that collateral management is a "learning curve activity" and that Asset Managers looking to start using Collateral with OTC products should not try to move directly to a fully industrialised model immediately. By focusing on key areas of risk and getting collateral agreements in place early Asset Managers are able to significantly reduce counterparty risk for relatively little investment.

The majority of counterparts have followed this approach and there is little use of the more advanced operating models (see operating model 3 below) in the marketplace. The collateral netting that does exist is focused on reducing the operational effort required for margin calls and settlement (operating model 2). The development of clearing houses for OTC products is expected to reduce the operational effort associated with collateral for vanilla OTCs however there was a general consensus that collateral teams would still be required to manage this process and that the clearing houses would not include structured products with complicated pricing and risk models.

Despite this lack of netting participants agreed that a centralised collateral team was the key to any implementation project. The key functions supported by this team are:

- The definition of a collateral management strategy with Risk and Front Office teams (including products to be collateralised, type of collateral to be used, margin call limits etc.)
- A centralised negotiation with counterparties
- The operational processes required to manage the collateral (margin calls, settlement etc.)

The primary source of delays in collateral implementations was identified as the legal negotiations with the counterparties. In order to minimise these delays participants advised a detailed risk policy and collateral matrix defined in advance, centralised negotiations and starting as early as possible with this phase.

A key discussion topic was the use of security collateral. Participants noted the increasing use of government bonds as collateral as problems investing cash, the impacts on ratios and a shortage of cash in some funds had led to requests from their Front Office to support this requirement. The operational processes associated with security collateral are more complex than for cash however the general conclusion was that the type of collateral used should be driven by Front Office and Risk requirements. Collateral management teams therefore need to ensure that the processes and IT systems are in place to support both types of collateral.

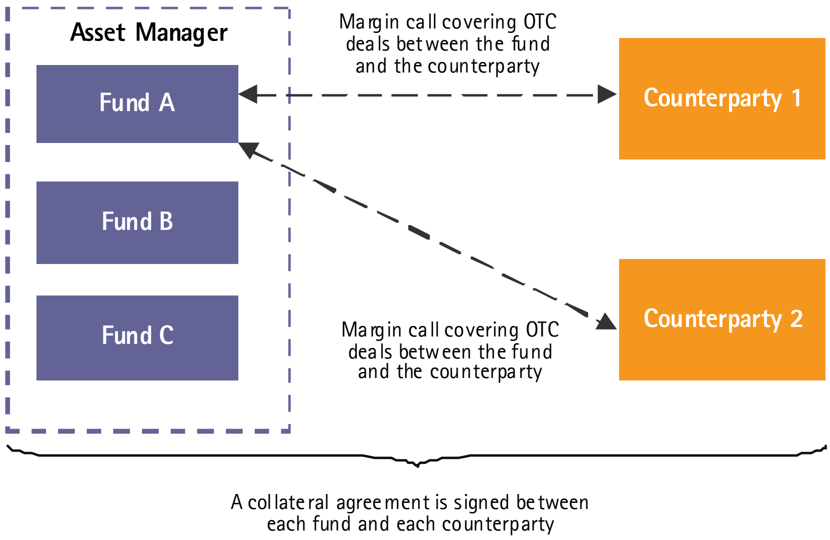
Throughout the discussions participants noted areas for standardisation within the industry. These included automating margin calls, standardised files for reconciliations in the case of a dispute and the use of third parties to reduce settlement and liquidity risk. Developments in these areas are anticipated as the growing pressure on all market participants to collateralise their OTC exposures leads to greater industrialisation.

Minutes of discussions

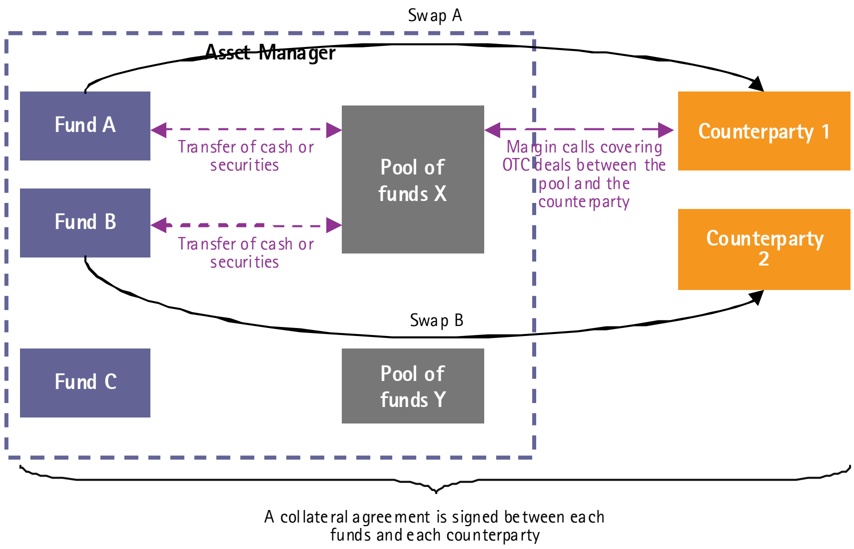
Is there any relative advantage between the potential operating models available for asset managers?

Operating model 1 was acknowledged by all participants as the starting point for collateral management within an Asset Manager.

Operating model 1



Operating model 2



Collateral management is a "learning curve type activity"

Pascal Dequenne: collateral management is a "learning curve type activity", it should be simplified initially to assist in a successful implementation.

David Maire: operating model 2 reduces operational complexity by pooling the margin calls made to clients.

Staffan Ahlner: there is no legal change with this model; it is purely aimed at operational requirements. A single document will be negotiated with the client but the listing of all the funds in the appendix ensures that, for legal purposes, this translates to a CSA by fund.

Neil Murphy: large banks should be able to cope with increasing volume of margin call coming from Asset Manager as they have industrialised solutions in place. If necessary banking counterparties do have the systems in place to handle individual margin calls as required.

Véronique Uzan: is the technical complexity of this operating model in the allocation of collateral?

Laure Capron: yes. Both in the day-to-day running of the collateral process and in the resolution of issues the re-allocation of collateral to individual funds needs to be carefully managed.

David Maire: do participants see an additional settlement risk to be managed in model 2 when compared to model 1?

Staffan Ahlner: with a large default there is the risk of not receiving the entire margin call instead of an amount for an individual fund, however this risk is very small.

Véronique Uzan: what are the day-to-day issues encountered by Asset Managers using model 2?

Pascal Dequenne: issues tend to be associated with the reconciliation of breaks across funds and transactions.

Neil Murphy: this potential issue with breaks should be met via a request for custom reporting from your vendor. But understand that underlying reasons for the breaks may be driven not by collateral management, but errors originating in the booking of trades or payments by Front/Back office.

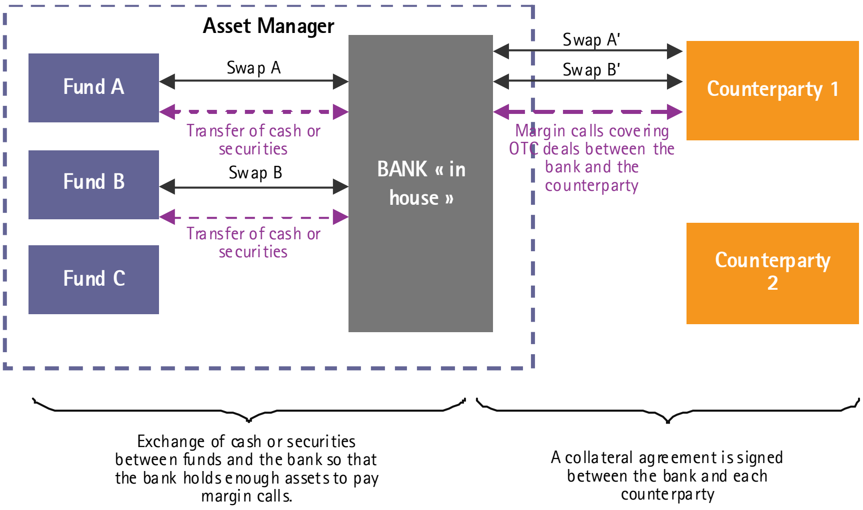
Philippe Hijazin: the key to successful reconciliations is in the definition of a standardized file [containing the breakdown of transactions and their MtM] with all counterparties to allow rapid automated reconciliation. The definition of the file to be used in the event of reconciliation can be defined during the contract negotiations.

Neil Murphy: it is not possible to guarantee a standard file as this obliges banks to maintain a format by counterparty. Ideally the collateral software solution should take this into account - by handling multiple file formats.

Staffan Ahlner: there are currently efforts being made by ISDA to produce a standardised margin call and reconciliation message format (potential use of Swift format MT535). It is not clear whether / when this will be implemented in the marketplace.

Staffan Ahlner: it should be noted that model 2, whilst being the standard for securities lending, is not in place for the majority of OTC derivative collateral.

Operating model 3



In moving straight to a model using a centralised legal entity for netting without intermediary phases the asset manager will spend a significantly longer time without collateral in place.

Participants agreed that model 3 was the most complex option available to asset managers.

Staffan Ahlner: the key advantage is credit assessment since counterparties are no longer required to consider the risk of the fund but the risk of the new banking entity. There will also be a time saving for counterparties in terms of risk analysis and legal documentation. The capital requirement may well be high however.

Veronique Uzan: an implementation of this model is not necessarily complex if the bank is already in place.

Neil Murphy: model 3 is seen by a large part of the marketplace as the ideal industrialised solution. However the length of time required to implement model 3 poses an important risk. In moving straight to model 3 without intermediary phases the asset manager will spend a significantly longer time [during the implementation project] without collateral in place. Hence starting with Model 1 can immediately lead to a reduction in credit risk.

David Maire: there is a requirement for double booking of all deals [deals are back to backed between the intermediary entity and the funds] and a complex accounting schema to put in place.

Pascal Dequenne: there has been a lot of pressure from counterparties to put model 2 in place and reduce the number of margin calls; to date there has been no requirement from counterparties for model 3 however.

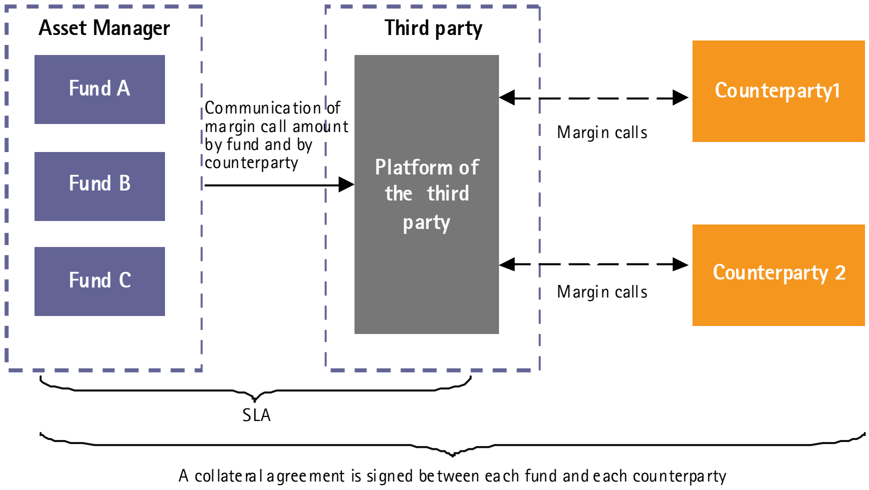
Neil Murphy: large banks have the systems in place to cope with large numbers of margin calls. The pressure for a model involving netting is generally coming from asset managers.

Véronique Uzan: have participants seen the same demands to net flows for mandates?

Pascal Dequenne: the legal issues are different for mandates – model 3 is viewed as unnecessary – but the operational complexities remain the same and so netting is necessary where larger volumes would otherwise result in multiple margin calls.

What are the typical services offered by a third party provider for Collateral Management?

Operating model 4



The third party normally takes over a number of the operational functions potentially including: CSA setup and negotiation, margin call management, reconciliation and settlement.

Staffan Ahlner: the external model is governed by the Service Level Agreements (SLAs) put in place between the asset manager and their provider. The third party providers are flexible and can offer different levels of service as required. The third party normally takes over a number of the operational functions potentially including: CSA setup and negotiation (detailed perimeters for the negotiation are set by the asset manager), margin call management, reconciliation and settlement.

Boris Duclos: State Street completes margin call computation, payments (State Street is not custodian but has the ability to control cash and securities settlement as required), substitution and reconciliation. AXA IM retains responsibility for the validation of the OTC MtM in the event of large discrepancies between "in house prices" and counterparties' prices.

Staffan Ahlner: the Repo / Securities Lending market has been used to push the industrialisation of collateral to a maximum. OTC collateralisation is currently less industrialised but will catch up rapidly now that the focus is in this area.

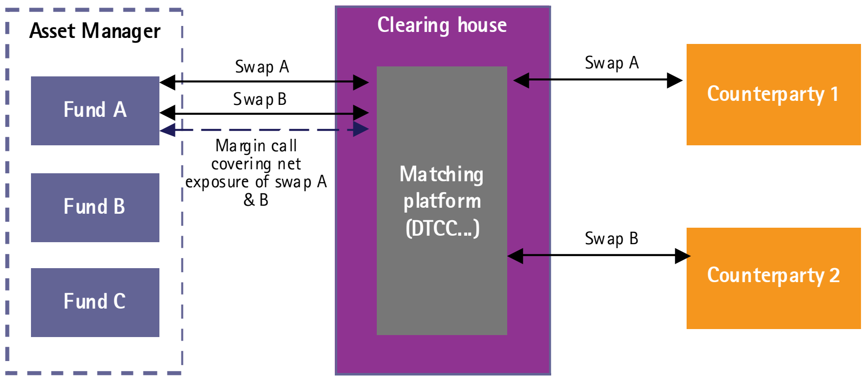
Cédric Gillerot: as discussed, ISDA is indeed pushing for industrialisation in the OTC Derivatives area, but the post-trade processing in the OTC Derivatives market involves more steps than in the Repo / securities Lending market. So, priority has been put on aspects like valuations and portfolio reconciliation, before considering the ultimate exchange of collateral between trading counterparties.

David Maire: the selection process for securities is a key issue to be handled. It is challenging to design the right process to make it easy for the third party to select the security in the fund to be posted as collateral.

Cédric Gillerot: the choice is not really between the operating models 1 - 3 and an externalised solution. Models 1 - 3 are focused on legal and risk aspects while model 4 concerns the externalization of the operational processes. Models 1 - 3 can be used with an external provider; this depends on the asset manager's choice.

What impact do the participants anticipate from the creation of centralised clearing houses (CCPs) to handle OTC Derivatives?

Operating model 5



The key question is to what level of pricing complexity the CCP will be willing to go.

Cédric Gillerot: this offering is already in place for the Repo market. The offerings are currently targeted at the vanilla OTC market, particularly Interest Rate Swaps and Credit Default Swaps but these will definitely grow over time. Do the participants believe that this will expand to include more complex derivatives?

Laure Capron: it will not be possible for the clearing houses to take on more complex OTC products. For this they would need to have access to the investment banks pricing models to ensure management of the pricing and risk on these deals. This is unlikely as it represents the bank's "savoir-faire" and they will not wish to give it up.

David Maire: a shift of funds with large numbers of vanilla OTCs from an "in house" model or "third party" model to the use of a clearing house would significantly reduce operational complexity [the bank would maintain an account with the clearing house, exposures to the clearing house could be netted and the margin call process would be fully automated where possible]. Asset Managers would therefore use the clearing house in conjunction with a classical collateral management team.

Cédric Gillerot: in novating the trade the clearing house becomes counterparty to your trade so you still need a collateral team to manage the exchanges with this counterparty.

David Maire: the presence of the CCP reduces the operational complexity however and there is therefore an incentive to move to this model where possible. The key question is to what level of pricing complexity the CCP is willing to go.

Fouad Estephan: is any third party offering a pricing service in the marketplace?

Pascal Dequenne: yes. The standard approach is to complete a parallel run with the asset manager or counterparties' pricing prior to handover.

Neil Murphy: It is not clear how and when CCP's will be available in the OTC market. Firms will still need to manage their collateral with the CCP, and importantly, a wide-reaching CCP may not exist for some time. Waiting for the challenge of collateral management to disappear is not effective risk control.

Does an Asset Manager need to be able to manage both Cash and Securities as collateral?

In the current market place, 70% of collateral is in cash.

David Maire: from an operational point of view the teams would prefer to use just cash as this is simpler to manage however some funds / mandates insist on the use of securities.

David Maire: AXA IM currently use cash and government bonds. Corporate bonds have been used historically but it was difficult to set a price for these bonds with the counterparty. The key issue with government bonds is that they are not cheap in the current market.

Staffan Ahlner: in the current marketplace 70% of collateral is in cash. However there is a move towards greater use of securities, particularly on the buy side. Funds do not want to receive cash as they are required to invest it [to cover the interest payable] and this then becomes a deposit risk that must be managed.

There is a move towards greater use of securities, particularly on the buy side as covering the interest payable on cash deposits received can be problematic.

Cédric Gillerot and Pascal Dequenne: earning the required interest rate for cash collateral is difficult in the current climate.

David Maire: having large quantities of cash can also impact the fund ratios. It can become operationally difficult to track cash received from collateral and the "real" cash balance of the fund.

Neil Murphy: a dedicated collateral system should easily make this distinction.

Staffan Ahlner: we are also seeing more securities as collateral today, in particular government bonds, as some market participants are short of cash.

David Maire: for security selection, there are 2 options: either the fund manager is contacted each time to select the security; or he leaves a stock of securities available to be used for collateral.

Neil Murphy: leaving a stock of securities available to be used for collateral is typically the model used by banks with large volumes of margin calls. This thus allows operational efficiency of using the same collateral for all margin calls for a period of time.

Boris Duclos: State Street and AXA IM currently have lots of interaction when choosing the securities. There is a project in progress to reduce this manually intensive effort.

David Maire: the problems are notably around the recall of securities (substitution process) as required. Do any of the participants have experience in how to secure the recall process?

Pascal Dequenne: Dexia IM has a recall solution in place where the security is automatically recalled when the fund manager requests or if a Corporate Action is anticipated. This is really a systems question as it depends on the flexibility of the collateral management and the position keeping architecture.

Staffan Ahlner: there are two solutions being used in the marketplace:

- Delivery versus payment [DVP - assures that related transactions, such as the delivery of securities and the corresponding payment, are coordinated and that neither party is exposed to settlement risk without the use of a CCP].
- Tripartite holding - a third party holds the collateral and ensures that it will be available for substitution as required [used in Repo markets]

Staffan Ahlner: the securities used as collateral need to be carefully defined in advance with the counterparties. Key factors to be

The evolution of haircut tables is now liquidity driven. Liquidity criteria should be added in standard haircut tables.

taken into account include:
- The exclusion of the counterparty's paper
- The margin adjustments to be applied as required (this is less applicable for government bonds)

In addition the pricing models to be used on the non-government bonds need to be accurately defined up-front. For less liquid assets the market is seeing more use of mark-to-model than quoted price.

Fouad Estephan: when identifying collateral the asset manager needs to take into account not only the quality of the proposed security but also their ability to liquidate this asset. The use of rating are not sufficient anymore, liquidity criteria have also to be considered.

Neil Murphy: One interesting development is that firms are starting to use more credit sensitive approaches to types of eligible collateral. These include linking the eligibility of a collateral bond to both the rating of the bond, and that of the posting counterparty. Thus, when a firm is higher rated they can post lower rated bonds, but will be required to post higher rated debt should they be downgraded. Monitoring of this eligibility should be managed by the collateral management system which will cross-check counterparty vs. bond rating. Other more advanced eligibility rules include specific parameters being associated with exotic debt such as MBS/ABS.

Pascal Dequenne: it is very difficult to know the price of collateral in the marketplace.

Véronique Uzan: haircut tables are evolving to take into account these new factors.

Cédric Gillerot: the evolution of haircut tables is now liquidity driven. The haircut based on residual maturity and rating needs to be completed by other characteristics such as: the liquidity of the security (how easily I can sell the security at a fair price) and volatility of pricing (a greater concern for corporate bonds). Liquidity criteria (such as size of the issue) should be added in standard haircut tables.

Véronique Uzan: does the definition of a good haircut table imply greater involvement of the risk team in the collateral decision making process?

David Maire: this should be the case but the methods for stressing pools of corporate bonds differ from one team to the next.

Pascal Dequenne: there are several complications with corporate bonds but government paper remains very expensive in the current marketplace and the Investment Banks are often unable to supply them.

Staffan Ahlner: the ratio of 70% cash collateral is expected to fall over the coming year however the linking of the pay-off to the type of collateral is not yet in place for the OTC market [this can be seen in the securities lending market]. The requirement to re-invest cash and the difficulties associated with corporate bonds mean that the trend is towards the use of government bonds.

Véronique Uzan: are there settlement complications when using security collateral?

Staffan Ahlner: this should not be a factor. There exist a number of methods to ensure that the movement of the securities is as straightforward as using cash.

Neil Murphy: there seems to be a consensus that the market will move away from cash collateral. Why? Is the key issue the re-investment of this cash?

Pascal Dequenne: yes. The long only industry is constrained by regulation on the lending that is possible. For a securities lending desk the use of bonds as collateral costs nothing.

David Maire: there is the opportunity cost of not being able to use the bonds in the Repo market - although this can depend on the fund structure and the regulation associated with the fund.

Staffan Ahlner: the tripartite system offers a safe way to use government bonds [reduces liquidity risk and substitution concerns] however this also prevents re-use in the Repo market.

Neil Murphy: the Investment Bank market is still primarily based on cash collateral - approximately 90% of collateral is in cash. Asset Managers need to be able to generate cash if required as the counterparty will not always offer the choice of using securities.

Laure Capron: for example the investment bank entity of BNP prefers cash wherever possible.

Cédric Gillerot: the question of cash collateral v. security collateral seems to be over stressed. With the liquid lending markets available currently, both cash and bonds should be available as required. In the Repo / Securities Lending markets the process is already heavily industrialised via the use of third parties.

Staffan Ahlner: it is likely that as the OTC market industrialises there will be greater use of third parties however the opportunity cost remains and it appears that fund managers are unwilling to give up the possibility of using incoming collateral to support the next deal.

Cédric Gillerot: so in conclusion the choice of cash or security should be based on risk policy and investment management and not technical feasibility.

What are the key steps required to maximise the chances of success for the implementation of a collateral management activity?

Véronique Uzan: who defines the politics of a collateral implementation - Front, Middle, Risk? What have participants done to centralise the collateral management activities?

Arno de Ruig: ING ensured that the creation of a collateral process was centralised on a single point of contact. The manager responsible for the collateral team centralised all activities including negotiations with the client, the functional requirements for the IT solution and the definition of the operational processes. The co-ordination of these aspects was critical to the success of the implementation.

Thomas Syrett: Fortis IM adopted a similar approach with 2 resources mandated to setup the collateral process. In particular the negotiations with the counterparties were centralised to ensure that fund managers did not negotiate individual terms. This centralised negotiation ensured that Fortis was able to negotiate favourable terms with the counterparties as it negotiated for all funds a single time. With this increased power of negotiation Fortis was able to impose a single operational procedure on all counterparties, thereby simplifying day-to-day activities

Neil Murphy: the legal negotiations can be the greatest cause of delay in collateral implementations. In order to accelerate the process a detailed template of negotiation parameters should be defined up-front and given to legal. This reduces the interaction between the legal and operations / risk teams.

Laure Capron: for BPSS it is the risk department that defines the guidelines for the negotiations.

Neil Murphy: it is critical that the Operations team that will run the process is involved at this stage as well.

Pascal Dequenne: legal templates are designed depending on the type of fund (mandate vs UCITS, cash vs security). In addition, inputs from risk department are required to define security eligibility and haircut table.

Pascal Dequenne: the Front Office has no real input after the request to put collateral in place. The risk manager should have the detailed vision of the portfolio necessary for the definition of collateral requirements.

Thomas Syrett: is the Risk team responsible for setting the dispute limits [the point at which a detailed reconciliation is required to ascertain the reason for a difference in margin call amounts] used for differences in the margin calls? How is this done?

Neil Murphy: in the CSA there is no official declaration of a dispute limit. The approach to be adopted in the event of a difference tends to be defined informally between counterparties. Under the standard ISDA CSA the asset manager can request the MtM by deal daily from the counterparty - some investment banks insist on this and conduct daily reconciliations to identify potential problems early.

David Maire: how do participants organise their collateral teams to respond to the needs of the Front Office, counterparty etc?

Pascal Dequenne: the team is separated by operational process:

- Negotiation / Configuration of contracts in system
- Margin Call processing
- Investigations / Pricing

It is normally the risk manager who has the detailed vision of the portfolio necessary for the definition of collateral requirements.

Staffan Ahlner: this is also the configuration used at BONY Mellon

Boris Duclos: State Street created a team dedicated to OTC processing and the collateral management function has been integrated into this team. The operational teams responsible for settlement, pricing and break investigations face off to AXA IM and are organised by fund.

Staffan Ahlner: the teams responsible for margin calls at BONY are aligned by counterparty to ensure a single point of contact where possible.

Staffan Ahlner: do the participants see a need to automate the margin call process? Is this necessary in the OTC market?

Neil Murphy: the broker / dealers are very interested by this proposition, as are the larger investment banks. - One potential development of this is that in future margin calls may be communicated not simply via email/telephone, but via a messaging service, allowing for more automation in the call process. Firms are already investigating how they can use tolerance rules to automate the margin call process.

Staffan Ahlner: a number of factors are contributing to the rapid growth in margin calls including the increased usage of collateral for OTC products and a reduction in thresholds.

Pascal Dequenne: a move towards more industrialisation seems inevitable, the timeline for this is not clear today however.

What is the starting point for a collateral implementation – Collateral Strategy, IT, MO Processes?

The collateral strategy needs to be agreed before the operations requirements can be defined

Staffan Ahlner: the risk department is the starting point. The collateral strategy needs to be agreed before the operations requirements can be defined. If there is pressure to implement then the asset manager can define the collateral strategy and a third party provider will then be in a position to rapidly implement the collateral processes required to reduce counterparty risk. Once up and running the Asset Manager can then consider bringing the process back in-house without the time pressure.

Arno de Ruig: ING IM was able to use the group technology solution for collateral so this reduced the IT complexity. The difficult questions that the project had to answer during its initial phases were focused on the types of collateral to be used.

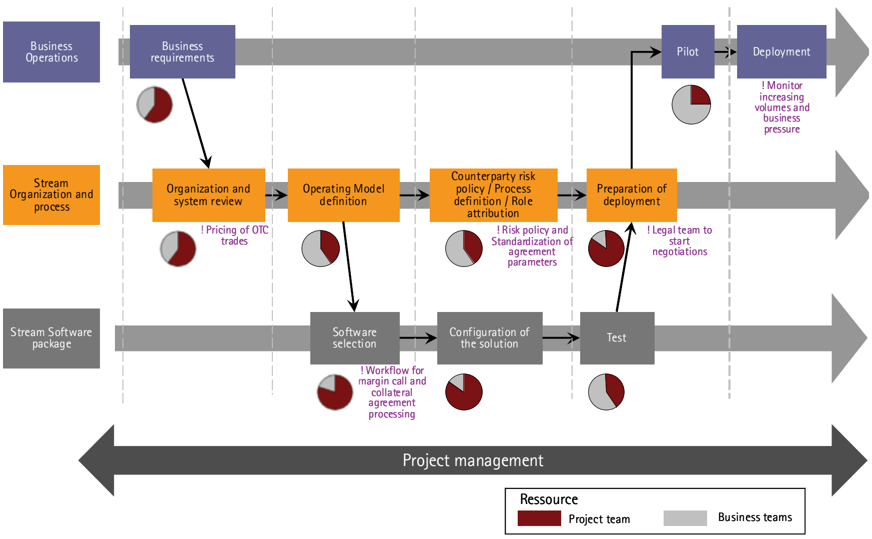
Pascal Dequenne: collateral management is a learning curve process. Asset Managers should look to start with one or two counterparts and then build on their experiences.

David Maire: the key to success is in the negotiation with counterparties. This must be managed as a centralised process.

Pascal Dequenne: negotiating contracts is always a very long exercise.

Staffan Ahlner: it is possible - lots of contracts were signed very quickly in September!

Neil Murphy: it is important to start as soon as possible. Waiting to implement a complex solution (eg.



Operating Model 3) only increases the time during which there is a significant counterparty risk. Choosing a solution provider with experience in collateral management can reduce the time for implementation. You should be able to leverage their experience in terms of functionality and custom development.

David Maire: by grouping the negotiation process it can be accelerated.

Pascal Dequenne: the length of time depends on the type of the fund as well. Negotiations for Alternative Investment Funds and funds using large amounts of leverage tend to take longer.

David Maire: The addition of a CSA to an existing ISDA contract can be quick but if the ISDA agreement requires negotiation from scratch this will take significantly longer.

Cédric Gillerot: are participants finding the definition of eligible collateral harder?

Pascal Dequenne: not really. The collateral matrices are becoming more complex but it is an activity for the risk department and is not a source of delay in negotiations currently.

David Maire: the Credit Risk department of AXA IM is moving towards a "government bonds only" policy to facilitate the definition of the collateral matrices.

Thomas Syrett: following the definition of the contract is this information stored in the collateral management system or in a separate document repository?

Boris Duclos: once the main CSA parameters are defined this information is keyed into the collateral management system (Sophis for State Street). State Street only inputs the CSAs after signature by their client and the counterparty – there is a process in place to give State Street visibility to the negotiations in progress and provide early warning for nearly completed contracts.

Staffan Ahlner: asset managers and their counterparties need to be very clear on the asset class tree [list of assets class / type covered by the collateral agreement]. This can be a key point for negotiations.

Neil Murphy: capture of legal documentation is very important to the margin call process. Thus, where documents are stored, how the margin system is fed legal data and the tracking of credit ratings are issues which should not be overlooked. For many firms it makes sense to optimize the collateral system for legal document storage. This allows easy reference to credit terms and should allow for automated CSA setup.

What types of resources are key to the successful running of a collateral management team?

There is often a dedicated pricing team outside the collateral function.

Pascal Dequenne: it definitely helps that the resources understand the OTC products and the collateral being used.

Neil Murphy: the investment banks tend to break their teams down. The reconciliation is often handed to a dedicated team. The teams responsible for the day-to-day management of margin calls etc. are staffed with operations profile resources with trade capture and pricing skills.

Staffan Ahlner: the reconciliation team tends to contain specialist skills and, for BONY, is separate from the margin call team.

Pascal Dequenne: the work for pricing teams has been steadily rising. Before the crisis pricing was a monthly activity but this has moved to weekly and in some cases daily pricing.

David Maire: there has been significant investment in the pricing platforms at AXA IM to ensure that the more rigorous pricing of OTC Derivatives is possible.

Boris Duclos: do participants' teams have a good level of market knowledge? Are they able to anticipate large pricing movements?

Pascal Dequenne: for Dexia IM there is a dedicated pricing team outside the collateral function – they are more likely to have this vision.

David Maire: do the participants communicate their own MtM or is it just used to validate the counterparty's margin call?

Pascal Dequenne: there is a daily computation of the MtM that is used to control the margin calls made by the counterparty.

Neil Murphy: in the United States the larger asset managers are now requesting the daily MtM files from their counterparts and using these to validate their internal pricing.

Arno de Ruig: ING IM always requests the MtMs from the counterparty before making a margin call. These are then used to validate the internal pricing before the official margin call is announced. If the counterparty price needs to be challenged the valuation of the deal used in the NAV of the fund is used (fund accounting is an internal function for ING IM).

Pascal Dequenne: it is not always possible to use the NAV valuation. For example the NAV may use market data from the market opening time whilst the valuation for the collateral is defined in the contract as the closing price. In general the collateral team tries to use a standard set of market data and avoid giving the fund manager the right to define the valuation details for the collateral.

Is there an advantage to being the calculation agent?

Pascal Dequenne: being able to price the deal controls the operational risk associated with the collateral management process.

David Maire: both sides of the transaction always have the right to dispute so being the calculation agent is not a key factor.

Neil Murphy: the only real advantage is if the proposed margin call amount is not challenged. The majority of CSA's today are bilateral - the counterparty making the margin call is considered the calculation agent.

Staffan Ahlner: there is no advantage in being the calculation agent in the event of a dispute. The key requirement is to swiftly resolve reconciliation problems. The standard process is:

- Identify the undisputed amount immediately and ensure that this is transferred
- Investigate the break and correct position / pricing if necessary
- Rerun the margin call to transfer the outstanding amount - the counterparties should not wait until the next margin call to correct the balance

Key causes of breaks are:

- Position issues (missing contract etc.)
- Nominal amount incorrect on deal
- Valuation of deal (market data or pricing model)

90% of breaks are caused by position issues.

Staffan Ahlner: brokers have expressed an interest in having standard prices available for disputes [the standard process currently requires the counterparties to find three independent valuations of the deals causing the breaks].

Laure Capron: In this area, third parties do offer pricing capabilities but it is limited to vanilla OTCs as banks are reluctant to disclose their valuation models.

Both sides of the transaction always have the right to dispute so being the calculation agent is not a key factor.

What are the key factors that have driven the selection of the collateral management software used by participants?

Use of Swift to automate collateral functions is much less advanced amongst Asset Managers than Investment Banks

Thomas Syrett: we generally see two groups of software packages available in the marketplace to support collateral management:

- A standalone software package dedicated to collateral management
- A collateral module attached to a centralised position keeping system

Staffan Ahlner: BONY uses a custom build solution. The aim is to be able to integrate easily with client systems and receive / send trade position and credit data as required.

Neil Murphy: this is the key objective for independent collateral software packages - a dedicated collateral system will typically offer more extensive functionality. This may include a dedicated margin call workflow, interest calculation, reconciliation and extensive reporting. 'Best-practice' methods in collateral will also be standard, as will be a close understanding & development of future market requirements.

David Maire: the key is to be able to extract the risk reporting required from the system. AXA IM uses a module attached to the position keeping system used for OTC Deals (Sophis).

Arno de Ruig: ING IM uses the solution chosen at group level (Adaptiv).

Alain Fritsch: CAAM uses a module attached to the position keeping system (Murex).

Staffan Ahlner: smaller asset managers cannot afford dedicated systems. The market trend has tended to be towards a modular approach with business functions supported by dedicated software - this is not possible without a critical mass. Specialised third party providers are able to invest in systems to provide greater industrialisation.

Fouad Estephan: it has been noted that the use of Swift to automate collateral functions is much less advanced amongst Asset Managers than Investment Banks.

Staffan Ahlner: the development of a standard protocol for communication is actually being pushed by new entrants to the marketplace. Banks that are already up and running with Tripod Repo are relatively content as they have developed the tools to handle multiple difference message and file formats.

Cédric Gillerot: the ISDA committee continues to work on the requirement to be able to feed collateral management systems with automated margin calls.

Véronique Uzan: do participants have a method for managing collateral in transit automatically?

Boris Duclos: this is not industrialised currently - it is very manual and represents a key operational risk.

Staffan Ahlner: for BONY the margin call is not considered closed until the collateral has been transferred into the appropriate accounts.

David Maire: but the OTC collateral market rarely settles at J therefore a method of following unsettled margin calls is required.

Véronique Uzan: this represents a further area for development as the collateral management process for OTCs is industrialised.

About Accenture

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