The New OTC Challenge: Optimizing Collateral Management in the Front and Middle Office

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OTC derivatives such as swaps and forwards are versatile and flexible instruments, used by investment managers globally for hedging unwanted FX and interest rate risk, implementing yield enhancement strategies and creating innovative factor-based investment products. But the lack of visibility into OTC derivatives was largely blamed for the 2008 financial crisis. This prompted regulatory initiatives that aim to mitigate counterparty credit risk by transitioning toward central clearing and margining non-centrally cleared derivatives.

As a result, a number of recent and emerging regulations seek to reduce systemic risk associated with OTC derivatives. Some of these include EMIR, Dodd-Frank, OSFO-BSIF and other regulations based on the Basel/IOSCO policy framework. Collectively, these measures have significantly increased collateral and margin requirements for non-centrally cleared derivatives. They also require that standardized OTC derivatives now clear through central counterparties (CCPs).

Collateralized transactions help firms reduce credit risk when dealing with smaller, less capitalized counterparties, during periods of market shocks, and when holding long-dated positions. However, managing, monitoring and optimizing collateral places a significant operational burden on the middle office.

In response, many buy side firms are turning to collateral management solutions to help optimally deploy collateral as they comply with prescribed operational mandates. This article explores some of the challenges to effective collateral management, and discusses technology solutions for helping firms meet their commitments under the new regulations.

Collateral Management Challenges

Since March 2017, regulations have mandated all counterparties trading non-cleared derivatives to exchange variation margin on a daily basis over the life of the trade, subject to a minimum transfer amount. Additionally, firms will be required to post, as well as secure, initial margin based on a staggered timeline specified by regulators.

Centrally cleared trades and exchange traded derivatives (ETDs) require both parties to transfer initial margin, in either cash or treasury bonds, and exchange cash variation margin on a daily basis without any minimum transfer amounts.

This has significantly increased the frequency of margin calls, with some firms reporting a 5 to 20 percent increase. Margin call settlement has also been reduced to same-day in most cases, placing further stress on staffing and resource levels.

While CCPs accept various forms of high quality collateral as initial margin, only cash can be used for variation margin. The new requirements mandating cash-only variation margin inordinately impact pensions, long-only managers and equity funds that tend not to hold large cash reserves, or funds that have to be fully invested.

The Credit Support Annex (CSA) defines when margin is required, rules for how the margin is calculated, and the eligible collateral that can be posted. Due to the new regulations, investment managers have been forced to amend CSAs to cover the uncleared margin rules, and have had to define processes for identifying eligible collateral and calculating applicable haircuts (i.e. a discount factor applied to the collateral based on risk perception). Prior to the new regulations, clients typically had one CSA per counterparty covering a range of instruments and eligible collateral. Now, firms have to maintain agreements for non-cash assets as well as cash-only CSAs and the clearing addendum.

Technology Considerations

Gaining a firm-wide view of collateral usage is challenging. Collateral management responsibilities may be spread across asset silos (REPOs, derivatives, TBAs, etc.), each with partial visibility into the available inventory of eligible assets. Collateral requirements differ across clearing brokers and venues, and collateral is potentially tied up with multiple entities.

An effective collateral management platform should serve the needs of both the front and middle office, and should also facilitate regulatory compliance:

FRONT OFFICE: Traders and portfolio managers need to understand estimated margin impact and analyze the relative margin requirement of each potential type of execution. This requires real-time margin estimates based on standardized methodologies approved by regulators for non-cleared trades, and CCP published methodologies for ETDs and cleared trades. Ideally, the platform should also support "what-if" scenario modeling by product and clearing venue to help traders gauge margin requirements.

COMPLIANCE: The complexity of clearing and margin requirements increases the likelihood of compliance breaches. Traders need clear visibility into whether a Credit Support Annex (CSA) exists for a fund, and the ability to set up bilateral (uncleared), cleared and exchange traded futures CSA agreements. Similarly, when a portfolio manager allocates an order pre-trade, the platform must verify that a CSA exists for each allocated fund comprising the order – and prevent the trade if not.

MIDDLE OFFICE: The frequency of margin calls has increased rapidly, straining middle office resources. Collateral management teams need to perform several actions for each margin call, from recording the call, performing reconciliation and resolving disputes, to agreeing collateral and tracking it through to settlement. Workflow automation is critical, freeing personnel from repetitive tasks to deal with exceptions.

The middle office also requires transparency into pledged collateral and counterparties from the front office. Technology solutions must provide the middle office with visibility into eligible collateral inventory, position updates of pledged securities, and collateral management tools that are trade-, position-, and margin-aware. This minimizes internal communication errors which can be costly and time-consuming to remediate.

Additionally, collateral management platforms must provide API support or direct connectivity with messaging service providers to support margin and collateral communication and automatically resolve threshold-based disputes.

The Critical Factor: Optimization

With the growing amount of cash and assets encumbered as collateral, firms are seeking increasingly sophisticated optimization methods to minimize the cost of collateral. Optimization applies rules defined in the CSA for eligible assets and haircuts to produce a prioritized list of cheapest-to-deliver assets. Two common scenarios that benefit from optimization include:

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CASH VS BONDS: A CSA may specify either cash or US treasury bonds as eligible collateral in return for the overnight cash rate. A trader is faced with the decision to obtain bonds through a repurchase agreement or simply post cash, depending on which is cheaper. Optimization evaluates each possible scenario and provides the trader with the cheapest option. This removes human decision making and provides a defensible and documented audit trail.

INSUFFICIENT COLLATERAL: If cash is the only eligible collateral, a manager looking to hedge their bond portfolio with an interest rate swap may find themselves short of cash to post as collateral. In this case, optimization might determine that a repo could be used to borrow cash, with bonds posted as collateral.

Eliminate Out-sourcing Risk

The significant and rapid changes to collateral requirements have given rise to a number of startups offering collateral management platforms and services. While these are viable offerings that can help the buy-side comply with the latest regulations, out-sourced collateral management is not a panacea. System integration adds complexity and often results in lagging updates, leaving portfolio managers and traders to make decisions on stale or incorrect collateral inventory information.

Firms can avoid outsourcing risks by adopting a tightly integrated front and middle office solution that incorporates a full suite of collateral management capabilities.

Firms can avoid some of the risks posed by out-sourced platforms by adopting a tightly integrated front and middle office solution that incorporates collateral management:

- Newly pledged collateral is immediately visible in the trading book, indicating a position is no longer available to trade
- Real-time notifications of over-pledged collateral can alert traders in time to allow for substitution
- Portfolio managers can make more optimal decisions and reserve only the necessary amount of collateral
- Unpledged collateral is immediately available for trading

Finding Competitive Advantage Despite Rising Costs

Regulations have increased collateral requirements, the frequency with which collateral is posted, and the number of parties that are required to exchange collateral. Additionally, operational risk aversion has compressed margin settlement cycles to same-day. The resulting operational changes – central clearing and increased collateralization – burden buy-side firms with added costs and operational complexity.

Against this backdrop, effective collateral management processes and technology solutions can have a significant impact on a firm's bottom line, by providing the front office with timely and well-informed margin inputs and automating middle office collateral recording, communication, tracking and reconciliation workflows.

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