Navigating the Future Collateral Roadmap
By Mark Jennis

Policymakers around the world have enacted new rules and legislation, such as the Dodd-Frank Act (DFA) in the United States, European Market Infrastructure Regulation (EMIR) and Basel III, to increase market stability and resiliency, enhance transparency and reduce risk in markets. A wide range of industry initiatives are also being designed, impacting the management, mobilization and transformation of collateral. Often viewed as both a solution to and a trigger of massive financial losses that occurred as a result of the financial crisis of 2008, navigating how collateral is effectively managed by the industry is a topic of great interest under a new regulatory and evolving market environment.

Collateral vs. Collateral Management
Collateral is the security provided by one party to another to mitigate counterparty risk for any extension of credit or financial exposure. In financial markets, collateral is broadly interpreted but typically includes cash, securities and, at times, commodities such as gold. Whereas collateral management is the efficient and effective allocation of collateral to reduce risk. It encompasses two components:

- **Demand Component:** the reconciliation of deal/trade portfolios and the daily calculation of exposures based on price movements of both the trade/deal itself and any existing collateral. Once calculated, issued and sometimes negotiated, a margin call is executed with an agreed value

- **Supply Component:** the efficient identification, aggregation, management and allocation of collateral to meet various exposures. Market participants cannot efficiently pledge collateral unless they know where it is located and can aggregate it accordingly. Once inventory is established, the collateral can be optimized.

Lack of Available Collateral to Meet Demand
Driving the trend for an increase in collateral requirements are new rules that mandate central clearing for the majority of over-the-counter (OTC) derivatives trading and the introduction of robust operational controls and capital requirements for non-cleared, OTC derivatives trades. In practice, clearinghouses will have to impose initial margin requirements as well as reduce or eliminate thresholds for variation margin, dramatically increasing the demand for high-quality collateral.

A September 2012 study by the Bank of England estimated that new collateral demands could reach as high as $800 million. The International Swaps and Derivatives Association (ISDA) calculated that new initial margin requirements for OTC derivatives could top $10 trillion. More recently, a committee of the Bank for International Settlement (BIS) estimated that the combination of new liquidity requirements and derivatives regulation could push collateral needs to $4 trillion.

Despite these projections, many financial institutions are either not fully cognizant of their pools of eligible collateral or unable to efficiently mobilize collateral to allocate it against specific exposures. As much as 15% of the collateral available to financial institutions is currently left idle, costing the global industry more than €4 billion a year, according to a recent joint study by Clearstream and Accenture. Furthermore, many firms are not optimizing their collateral, which could create a gap between supply and demand. The inability to view all available collateral, along with limits on bringing it to bear in times of market stress, could exacerbate collateral shortfalls, particularly as a prelude to or during a financial crisis.

Margin Call Activity Could Increase By Up to 1000%

Discussions with participants in the OTC derivatives markets indicate margin call activity could jump as high as 1000% in the near future, with the primary drivers of this increase including:

- **Regulatory Changes** under both DFA and EMIR which could require initial margin for both counterparties significantly increase the amount of collateral required. They will further create additional margin calls with changes in valuations possibly triggering daily margin calls. In the past, thresholds limited these calls to times of significant changes in underlying valuations.

- **Clearing Fragmentation** as a result of new clearing requirements for OTC derivatives transactions. ISDA's Credit Support Annex documentation, which has historically covered an entire portfolio with one margin call, now may exclude products offered by different clearing houses. This may drive individual daily or even intraday margin calls for each clearing house reducing the historical advantage of calculating margin across a multi-product portfolio.

- **Regionalization** through the creation of multiple clearing venues per product may have a splintering effect on collateral, increasing the number of margin calls and altering the mix of acceptable collateral globally. This could also dramatically increase collateral requirements as the benefit of offsetting under current portfolio exposure calculation is removed and margin reverts to being calculated on a regional or gross basis. The introduction of these new venues and their specific settlement criteria could also increase operational and settlement risk should there be a surge in physical movements and settlement of collateral.

- **New Standard Credit Support Annexes (SCSA's)** which establish rules that govern the posting of collateral for OTC derivatives adding further complexity. Historically, margin calls have primarily been met in EUR or USD. ISDA's new SCSA looks to encourage better risk mitigation through matching the currency of the collateral with the currency of the underlying trade, potentially adding significantly to the volume and complexity of collateral calls and their settlement which could be in as many as 17 currencies in the future.

Impact on Market Participants

Many firms are reasonably concerned because the increase in collateral requirements, along with the subsequent increase in underlying margin activity, is expected to have an impact on costs and risk in a number of areas including funding costs which are expected to rise as increases in volumes and total currency amounts will require firms to fund larger cash balances to meet expected margin calls. Furthermore, institutions, particularly in the OTC derivatives market, will need to increase their liquidity buffer to ensure they can meet the anticipated rise in margin calls.

The lack of certainty around intraday obligations and settlements will magnify intraday exposures and funding squeezes during times of extreme market stress. In addition, complexity due to market changes could overwhelm the current operational processes and system infrastructures within financial institutions, requiring firms to invest in technology and also reengineer the settlement, exceptions management and dispute resolution processes in place today. A 2011 Deloitte paper estimates investments to build and sustain advanced collateral capabilities at upwards of $50 million annually for top-tier banks.

While collateralization is a distinct activity from trade settlement, it moves through the industry pipes like other security and cash processes. As a result, firms are tasked with distinctly identifying collateral movements from settlement movements to ensure collateral is readily available to be returned or used to cover exposures in times of stress. This is an exceptionally labor intensive and time consuming challenge which will only deepen for the industry as well as increase credit, market and/or operational risk. In addition, today's fragmented processes for deal reconciliation, margin disputes, margin call reporting and settlement reporting can further inhibit tracking and reporting of collateral activity and collateral balances.

In addition, with the introduction of central clearing and same day margining, there is a gap between how quickly a bank will be able to meet a margin call versus how quickly the collateral can be collected from the underlying investment manager or dealer. This timing gap is essentially an extension of credit and, therefore, draws a capital charge. By streamlining the availability, mobilization and settlement of collateral from the investment manager more quickly, the gap can be reduced and capital relief provided to the bank.

Lastly, regulatory requirements for segregated accounts are changing globally driven by the loss of client assets or delayed access to them following events like Lehman Brothers and MF Global. While adding greater safety and transparency regarding the safekeeping of collateral, these requirements could produce a surge in the number of accounts as well as add greater complexity to segregation models. These requirements can also challenge the technology of many providers who are currently safely holding these assets for the public.

Transparency Critical for Managing Risk

During periods of extreme market stress, the volume and value of margin calls increases exponentially. The inability of firms to connect collateral obligations and their ensuing settlements seamlessly creates opacity in the market and leaves counterparties prey to rumors or at a minimum incomplete information. Recognizing the need for greater transparency, regulators are becoming more interested in collateral reporting as can be seen in exposure reporting to trade repositories, margin dispute reporting and recovery and resolution reporting needs.

Strategic vs. Costly Fragmented Solutions

A broad mix of industry participants, including broker/dealers, large and small asset managers, fund administrators and custodians note they would prefer strategic solutions to collateral challenges to avoid costly fragmentation. One of the major pain points for prime services providers is the cost of operating separate clearing platforms for listed and OTC derivatives. These varying platforms fragment margin processing and collateral management. To ensure success, strategic solutions require partnerships between providers, and alignment of industry standards and process. Introducing interoperability in the collateral realm could create a foundation for more scalable solutions, which would help reduce operational risk and costs.

Dramatic changes rippling across the market are spurring new solutions and opportunities in collateral management which can generally be grouped into six categories:

- **Exposure Calculation and Margin Management –** portfolio reconciliation tools enable participants to reconcile deals or transactions and valuations that are the primary inputs to calculate margin calls. These tools may be specific to the data being matched by trade repositories or customized reconciliations for margin processes. There are also various calculation engines that compute variation and initial margin. These may be part of a collateral management solution at the client or provider level or even computed by clearinghouses or utilities. Future opportunities include industry solutions to calculate initial margin for the OTC bilateral derivative markets similar to the calculation of initial margin for clearinghouses.

- **Portfolio Margining –** focusing primarily on the demand side of collateral management, the goal of portfolio margining is to calculate a margin requirement for a portfolio in such a way that offsetting risks are used to reduce the requirement for collateral. For example, a counterparty holding an equity option can offset that exposure against the underlying equity or an equity index. Portfolio margining is more common in the futures and swap markets, but will continue to be a focus in collateral management in the years ahead.

- **Collateral Optimization –** essential to addressing and resolving the gap between collateral supply and demand, the key functions of collateral optimization include identifying collateral held in various locations; pooling collateral to meet various exposures; allocating collateral in an efficient way, such as based on price, risk, liquidity, haircuts and financing costs; and creating networks to facilitate the efficient flow of collateral between counterparts.

  Solution providers currently offer all or some aspects of these services. It is increasingly clear there is a strong desire among market participants to allocate pools of collateral not only on a daily basis but intraday, and across geographic locations and jurisdictions.

- **Recordkeeping and Reporting –** a critical risk management tool, collateral reporting is often overlooked. Global trade repositories for derivatives that hold collateral data have the ability to identify potentially large margin calls that could be difficult for firms to satisfy. Repositories can also provide the tools to track "payment failures" across jurisdictions that may not be visible to individual national or regional authorities.

  Standardization of reporting is another area of focus as it eliminates the need for firms to assimilate and manage data. There is currently an industry initiative to standardize margin reporting for cleared OTC derivatives to resolve these issues.

- **Communication Standards –** among the most critical factors for successful management of complex collateral processes is leveraging standard messaging platforms for collateral processing and collateral settlements. Standards for margin call workflows and disputes are still developing. Standard messaging to communicate margin calls and settlement activity is particularly critical given the growth of interconnected players and segments in the collateral markets, such as the expanded use of administrators to support buy side collateral processing and the growth of clearinghouses globally.

- **Reference Data –** standard pricing of collateral and trades/deals is a major input into the margin calculation process and the cause of many margin disputes. The quality and content of the data in the securities masterfile is important for optimizing collateral. Standard settlement instructions that leverage industry infrastructure will help ensure that collateral is delivered to the appropriate location while Legal Entity Identifiers (LEI) will allow for more accurate client identification and reporting.

Conclusion

The evolving regulatory environment will continue to place significant pressures on financial firms and create myriad challenges for managing collateral. In an environment where cost benefit analysis rules the day, the industry is looking to harness market infrastructures to help solve this issue. Firms are growing wary of fragmented approaches that may deliver limited operational cost and risk benefits. Therefore, it is essential that strategic collaborative solutions are employed to the greatest extent possible to leverage the expertise and knowledge of multiple providers as well as address the issue in a more holistic manner.