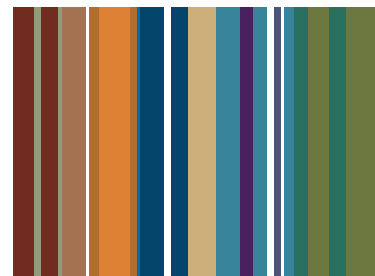


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MARKET PERSPECTIVE

A New Approach to Collateral Management

by Rafiq Tai, Collateral product manager, SunGard Adaptiv

A New Approach to Collateral Management



As the financial markets reassess the way they need to manage risk-taking, Rafiq Tai, Collateral product manager for SunGard's Adaptiv suite of solutions describes the factors shaping the new dawn of collateral management programmes and operations.

Collateralisation has been a fixture in capital markets for many years and has served as a useful means for firms to both increase trading capacity whilst simultaneously mitigating counterparty credit risk. *The question arises: do the techniques which worked well several years ago still work today?*

A number of high-profile defaults, volatility in the financial markets and heightened concerns over counterparty credit risk have placed great strain on many banks' collateral programs and have highlighted the need for a new approach. Even before the collapse of the sub-prime market and the default of Lehman Brothers, the rise in instrument complexity and trading volumes coupled with a general focus on credit had alerted the market of the need to update the techniques and systems used to manage the collateral process.

While collateralisation can be viewed as a trading enabler and a way to protect against counterparty credit risk, it introduces its own set of operational and legal risks. During quiet times these risks may be low; however in times of great upheaval they can become significant. These risks need to be addressed for collateralisation to be effective. The risks stem from the firm's ability to:

- Define and accurately apply the terms of collateral agreements
- Capture the appropriate credit exposures with counterparties
- Calculate collateral calls
- Track and monitor collateral calls and movements
- Monitor concentrations and correlations of collateral assets received / delivered
- Optimise collateral asset usage

A breakdown in any of these steps can lead to missing collateral calls (and hence increasing the amount of credit risk run by the bank) or missing collateral postings (leading to penalty charges and reputational risk). Worse still, posting incorrect amounts of collateral can increase counterparty credit risk since, if you post too much

collateral and the counterparty goes into default, you may not get the full collateral amount returned. Collateral management operations must be able to address these inherent collateral risks in order to implement a robust collateral management programme to effectively mitigate credit risk. With the current cost constrained environment processes must also be in place to assist institutions in maximizing operational efficiency & control in order to minimize the operational cost associated with their collateral management programme.

From the old to the new

In addition to a wider recognition of credit and operational risk, firms are also shifting from the standard, backward-looking reactive approach to a decisively proactive, predictive approach in order to prevent disputes, and foresee and respond quickly to potential risk and exposures. The traditional approach to collateral management has been founded on the T-1 method of valuation where the previous day's close of business prices and rates are used to calculate collateral requirements.

This strategy is not without merit and is still widely used. Consequently the majority of collateral management operations and systems have been designed with this approach in mind.

However there has been growing demand among participants to take a more proactive and forward-looking approach to the calculation of collateral requirements rather than the reactive nature of the standard T-1 approach. Even though legal and operational constraints currently result in collateral call requirements based on previous close-of-day prices and rates, institutions are

increasingly demanding to view their exposures on a real-time basis and understand what might happen in the future.

Stress Testing ('What-if' Scenarios)

This new proactive approach demands effective stress testing by modern collateral management operation areas. Stress testing in the collateral management market has only occurred on a minimal basis in the past and, consequently, collateral management operation areas and systems have not really developed processes or solutions to cater for this demand. In today's more forward-looking market there is a clear recognition that the processes and tools that can perform hypothetical situation analysis in addition to the traditional, reactive T – 1 collateral management, will provide firms with greater risk mitigation and trading revenue opportunity. As a result, firms will be able to enhance their decision making and prepare for a variety of situations.

A modern collateral management programme should ensure that operationally the firm has the ability to test for hypothetical movements in rates, prices and ratings, facilitating a mechanism to achieve a forward-looking approach to exposure management. This not only helps to mitigate operational risk, but can also help to highlight, under defined scenarios:

- The firm's level of potential future exposure to a specific counterparty
- The firm's level of potential future exposure to a specific trade type
- Potential concentration risks in specific collateral asset types
- Potential correlation risks between specific trade and collateral asset types
- Potential future collateral requirements / movements
- Potential future collateral funding requirements
- Potential exposure to specific issues or issuers of collateral assets
- Potential exposure to specific industries or geographic location
- Potential exposure to specific currencies

Breaking down the silos

Collateral management has traditionally followed a very segregated path in terms of the different instruments and

counterparties involved. This long-established approach has led to the emergence of collateralisation following individual product silos – such as over-the-counter (OTC) derivative instruments, stock lending, and repos – all with their own legal contracts and agreements. More recently the industry has developed master netting agreements which allow institutions to net exposures across different product silos and legal agreements. This consolidation is being extended to individual counterparties so that firms can take a true enterprise-wide view of all collateral-based exposures they have with a specific counterparty. Institutions are also looking to streamline their collateral call process so that, for example, they can send one net collateral call at counterparty level rather than four different calls based on four different legal agreements with the same counterparty. This consolidation of silos reduces costs, increases efficiency and improves customer relationships.

Dispute prevention

Collateral call disputes have been a long standing part of the collateral management process. Disputes can arise due to a number of reasons, including trade valuation differences, trade population differences, and collateral valuation differences. Efficient dispute resolution turnaround is vital to ensure institutions are not exposed to unnecessary credit risk.

Portfolio reconciliations are performed as part of the dispute resolution process, with a large percentage being performed manually using spreadsheets. This is largely an inefficient method and can lead to relatively long dispute resolution turnaround times as well as less frequent reconciliations. The importance of dispute resolution in the collateral management space has been highlighted by a number of large institutions investing in teams dedicated to reconciliations and the establishment of dispute task forces, designed to limit the risks caused by outstanding disputes.

A new approach has emerged based on proactive, periodic, and frequent reconciliations of a counterparty's trade portfolio. The emphasis now is on dispute prevention (proactive reconciliations) rather than dispute resolution (reactive reconciliations), the logic being that preventing a dispute is much more cost effective, and less risky from an operational point of view, than trying to solve a dispute after the event.

The shift towards proactive reconciliations is a result of both the current credit risk climate as well as increased

regulatory scrutiny. In the July 2008 letter to the Federal Reserve, institutions within the Operations Management Group committed to performing weekly interdealer reconciliations of collateralised portfolio's exceeding 5,000 trades by December 2008. They also committed to having adequate resources in place to identify and resolve portfolio differences in a timely manner, as well as providing reporting metrics on their portfolio reconciliation activities to the regulators.

A daily, weekly, or monthly reconciliation of the trade portfolio will minimise any differences in valuation that could emerge between counterparties. By maintaining this frequent vigilance, firms can not just resolve disputes but prevent them happening in the first place. And in this current climate, reconciliations have become a key focus for firms.

Asset optimisation

With the current cost constrained (credit) risk aware climate the selection and management of collateral assets is vital. There has been a growing recognition that collateral management is no longer simply a back-office cost centre but can be an important asset optimisation tool if individual institutions are able to deliver and receive collateral deemed most cost-effective and of appropriate quality.

A modern collateral management operation should ensure that once collateral is received, the firm is able to re-use it through rehypothecation, and that there are appropriate audit and tracking tools to manage the process efficiently and effectively.

Beyond this, a modern collateral management operation should have rule based tools and processes in place to identify and auto-select the most effective collateral to receive or deliver for a given situation. Using cost of carry and other business rules such as credit ratings, internal priority ratings, maturity, cash flows, and other factors, a modern day collateral management operation can facilitate the selection of the most beneficial collateral for a given situation, and contribute to the optimisation of the firm's collateral asset portfolio.

Straight-through processing (STP) and standardisation

As a primarily OTC market, collateral management is one of the last refuges of manual processes and data standards. As standardisation increases amid a drive to

gain efficiencies and reduce errors, firms will need rules-based tools that automate a vast majority of the collateral call processes and allow higher levels of straight-through processing of collateral calls (e.g. sending and settlement of multiple collateral calls with minimum user interaction).

Having rule based tools that perform validation checks ensures the accuracy and timeliness of data. In addition, rules-based workflow tools can be tailored to the institution's requirements, integrate with other systems and adhere to future industry standards as they develop.

Merging of banking and trading book collateral management

As the industry looks to greater efficiency in the future, a number of firms are exploring the potential benefit of merging the collateral management functions of banking and trading books within one system. With this comes greater complexity in collateral types covering loans and deposits, often physical assets for cash and equities which can be difficult to price. Firms will require tools and processes that prompt asset revaluation and allow linkages to be formed between specific collateral assets, and loans or facilities. The combination of the collateral management function of the banking book and the traditional trading book in one system can also help overall relationship management through better collateral usage and a single point of contact.

Addressing the new challenges

The next generation of modern collateral management operations will emphasise:

- proactive exposure modelling
- advanced reconciliation
- an approach to operational management which reduces as well as resolves disputes
- effective credit risk mitigation.

Key components of a modern collateral management operation should be:

- Straight-through processing of collateral calls
- Asset optimisation
- Cross-product collateral and master agreements
- Dispute management and reconciliation
- Stress testing and reporting
- The ability to merge banking and trading book collateral management.

Comprehensive in nature, a modern day collateral management operation would offer a myriad of possibilities depending on the flow of collateral including future potential events. It should be flexible to adapt to new challenges, proactively mitigate counterparty, credit and operational risk, and ultimately help firms to enhance efficiency, opportunity and profitability.

About Adaptiv

SunGard's Adaptiv provides enterprise-wide credit and market risk management and operations solutions for financial services institutions. Adaptiv assists institutions of varying size and complexity to deploy technology to meet both internal and regulatory requirements for risk management and operational control. Adaptiv helps financial services institutions from the banking, hedge fund, asset management, insurance and corporate sectors with our deep understanding of risk management and operational processes. Visit www.sungard.com/adaptiv

To talk to an expert to learn how SunGard Adaptiv can help your business please call: +44 (0)208 081 2779 or email adaptiv.marketing@sungard.com

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With annual revenue of \$5 billion, SunGard is a global leader in software and processing solutions for financial services, higher education and the public sector. SunGard also helps information-dependent enterprises of all types to ensure the continuity of their business. SunGard serves more than 25,000 customers in more than 50 countries, including the world's 25 largest financial services companies.

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