# Trends in Collateral Management

A Survey by the Professional Risk Managers' International Association

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**To find out more contact:** telephone: +44 (0)208 081 2779
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# Trends in Collateral Management

## INTRODUCTION

The market upheavals since early 2008 have raised particular anxiety relative to counterparty credit risk. This concern was magnified considerably by the failure of Lehman Brothers and the resulting realization that many firms were not in a position to determine their full exposure on a timely basis. It also focused attention on the use and proper management of collateral as a means to limit loss-given-default for counterparty exposure. In light of this industry concern, PRMIA, in conjunction with SunGard's Adaptiv solution for enterprise risk, recently conducted a survey regarding risk managers' views on the importance of different features and functions in a collateral management system. The survey yielded some interesting trends.

Prominent among the most desirable features highlighted by survey respondents were those related to three broad issues:

- Scope
- Timeliness
- Analytic sophistication

Scope related to the breadth of coverage across products and regions as well as collateral types that can be processed. Timeliness applied to updates of exposure as well as notification of excesses. Analytic sophistication focused on the ability to track sensitivities of both the exposure and the collateral values to uncertain market events. Quite interestingly, calculation of regulatory exposures ranked well down the list of priorities. One would like to hope this indicates a renewed focus on risk management as an operational core competence and not just a regulatory obligation.

## RELATIVE IMPORTANCE OF SELECTED FEATURES AND FUNCTIONS

The survey began with a list of 21 suggested features and functions. Respondents were asked to rate each one as:

a) Very Important

b) Somewhat Important

c) Somewhat Unimportant

d) Very Unimportant

Perhaps not unexpectedly, the top pick for importance was "Accurate and timely information on exposure." This was rated Very Important by an overwhelming 83% or respondents and as Somewhat Important by another 15% of respondents, for a combined total of 98%. It seems likely that the difficulty faced by many firms during the market crises surrounding Bear Stearns and Lehman Brothers has focused attention on the crucial significance of both accuracy and timeliness. The timeliness issue was further reinforced by "Real-time Exposure Updates" ranking fourth based on the proportion of respondents considering it to be Very Important and fifth based on its combined Very or Somewhat Important ranking.

Two other questions related to the importance of consolidating exposure a) across product types in the trading book and b) across the trading book and the banking book. Trading book consolidation ranked second based on its Very Important ranking as well as on its combined Very or Somewhat Important ranking. On this same basis, consolidation across the banking and trading book ranked 3rd and 4th respectively. Again, the reported difficulty that many firms faced in determining their total exposure to Lehman Brothers when it failed appears to have focused attention on the consolidation issue.

Nearly equal importance was accorded to "Portfolio reconciliation capabilities" although notably fewer respondents ranked it as Very Important when compared to the exposure consolidation features.

"Supporting a Wider Range of Collateral Types (e.g. physical assets, commodities)" ranked sixth in terms of Very Important but only tenth on a combined Very or Somewhat Important basis.

Interestingly, "Stress Testing Capabilities" came in a somewhat lackluster seventh based on the combined Very or Somewhat Important responses and eighth based its Very important ranking. Given the volatility of current markets, a somewhat higher ranking for Stress Testing might have been expected.

These top ranked features are summarized in Table 1.

## OTHER INTERESTING CONCLUSIONS FROM THE SURVEY INCLUDED THE FOLLOWING:

**Portfolio Reconciliation**
Of the those respondents who said that portfolio reconciliations were applicable for their institutions, just over half said they undertook such reconciliations weekly.

**Central Credit Clearinghouse**
An overwhelming majority said that a central credit clearing house would have a Very Significant (40.6%) or a Quite Significant (47.2%) impact on the collateral management process.

**Real-time Collateral Processing**
A slight majority said that the collateral call process should take place in real-time rather than once a day at the close of business.

**Independent Amounts / Initial Margin**
Opinion was broadly divided on how independent amounts and initial margin amounts should be calculated, with almost half opting for a method based on a combination of approaches.

**Combined Credit Risk and Collateral Management Systems**
An overwhelming 96% said that combining collateral management with an institution's credit risk system was either Very Important (72%) or Somewhat Important (24%).

**Time to Implement a Collateral System**
Opinion was divided on how much time it should take to implement a collateral management system. About 60% said it should take less than a year (with these respondents averaging about 6 months.) The remaining respondents expected more than a year would be required. These responses probably were correlated with the scope and volume of collateralized activities at respondent's institutions.

**Cross Product / Agreement Collateralization**
Almost two-thirds of respondents thought that constraints to cross product / agreement collateralization arose from a combination of operational, legal and technological considerations. Only three percent felt there were no significant constraints to such an approach.

**Dispute Resolution**
87% of respondents thought that conducting active reconciliations to minimize collateral disputes was important.

**Collateral Management Challenges**
Several challenges for the collateral management process were proposed and respondents were asked to rate the importance of addressing them as Very Important, Somewhat Important, Somewhat Unimportant or Not Important. The clear leader was Cross Product / Agreement Collateralization, which nearly two-thirds of respondents thought was Very Important to address.

**Potential Improvements from an Effective Collateral Management System**

Reduced cost and increase efficiency roughly tied with providing timely and accurate information as the most important perceived benefits of implementing an effective collateral management system. Optimal Resource Management (e.g. Reduction in headcount) trailed well behind, although it was still considered Very or Somewhat Important by 88% of respondents.

**Growth in Different Forms of Collateral**

29% of respondents thought that good old fashioned Cash would experience the fastest growth among all forms of posted collateral over the next five years. 20% opted for AAA Rated Debt and 16% thought Physical Assets would grow fastest. Smaller proportions of respondents pointed to more exotic or less secure forms of collateral as the big growth areas.

**Growth in the Number of Agreements and Volume of Collateral**

Opinion was sharply divided as to how rapidly collateral activity would grow, either in terms of the number of agreements or the volume of collateral posted. Significant numbers of respondents (35%) said growth would be over 15% while almost half that number (15%) said growth would be 0 to 5%. No consensus was evident here.

**Complexity of Collateral Agreements**

An overwhelming 84% said collateral agreements were becoming more complex.

**Conclusion**

As is to be expected, there was significant diversity of opinion across respondents, likely conditioned by the size of their institutions' and the complexity of their collateralized trading activities. Despite this diversity, however, one can detect a growing awareness of the need to improve the **accuracy**, **timeliness** and **analytic sophistication** of the information their collateral management systems are able to provide.

## Collateral Management System Features Rankings

| | Feature | Very Important | Rank | Somewhat Important | Very or Somewhat Important | Rank | Somewhat Unimportant | Very Unimportant |
|---|---|---|---|---|---|---|---|---|
| 1 | Real time exposure updates | 58.20% | 4 | 33.80% | 92.00% | 5 | 5.90% | 2.10% |
| 2 | Consolidation of exposure across product types / agreements (i.e. OTC Derivatives (ISDA CSA), Repo (GMRA), Stock Lending (OSLA)) | 65.60% | 2 | 30.60% | 96.20% | 2 | 3.40% | 0.40% |
| 3 | Consolidation of exposures arising from Trading Book (counterparty risk on OTC derivatives) and the Banking Book (Lending Activities) | 61.30% | 3 | 31.70% | 93.00% | 4 | 5.10% | 1.90% |
| 4 | Accurate and timely information on exposure | 82.80% | 1 | 14.90% | 97.70% | 1 | 2.10% | 0.20% |
| 5 | Portfolio reconciliation capabilities | 54.60% | 5 | 38.60% | 93.20% | 3 | 5.70% | 1.10% |
| 6 | Pledging Preference Rules – Automated rule based approach to selecting and delivering collateral | 31.20% | 16 | 51.60% | 82.80% | 13 | 14.70% | 2.50% |
| 7 | Stress Testing Capabilities | 50.00% | 8 | 38.60% | 88.60% | 7 | 10.30% | 1.10% |
| 8 | Disputes Management / Resolution Workflow | 27.60% | 18 | 51.50% | 79.10% | 17 | 19.00% | 1.90% |
| 9 | Importing and Exporting Capabilities | 33.10% | 15 | 47.60% | 80.70% | 16 | 16.80% | 2.50% |
| 10 | Extensibility | 23.50% | 21 | 53.70% | 77.20% | 18 | 19.50% | 3.40% |
| 11 | Swift Messaging | 27.00% | 19 | 42.60% | 69.60% | 21 | 23.80% | 6.60% |
| 12 | Flexible concentration limits framework | 37.80% | 13 | 44.60% | 82.40% | 14 | 16.50% | 1.10% |
| 13 | Cash Management – e.g. Interest accruals, capitalization | 49.90% | 9 | 35.80% | 85.70% | 11 | 12.60% | 1.70% |
| 14 | Dynamically generated user configurable workflows | 25.60% | 20 | 48.80% | 74.40% | 20 | 20.30% | 5.30% |
| 15 | Import Data Management – Dynamic rule based data feeds | 35.90% | 14 | 46.40% | 82.30% | 15 | 14.50% | 3.20% |
| 16 | Static Data Management – Collateral Agreements, Organisation Data | 47.20% | 10 | 39.60% | 86.80% | 8 | 11.40% | 1.90% |
| 17 | STP / Automation around the collateral call process – e.g. Ability to simultaneously send multiple collateral calls and settlement instructions | 46.20% | 12 | 40.30% | 86.50% | 9 | 11.30% | 2.10% |
| 18 | Customizable Reporting | 46.90% | 11 | 42.10% | 89.00% | 6 | 9.70% | 1.30% |
| 19 | Supporting a wider set of collateral types (e.g. physical assets, commodities) | 51.90% | 6 | 33.90% | 85.80% | 10 | 11.70% | 2.50% |
| 20 | Prime Brokerage Margining | 30.80% | 17 | 45.70% | 76.50% | 19 | 19.70% | 3.80% |
| 21 | Management and storage of legal collateral documentation | 50.10% | 7 | 34.00% | 84.10% | 12 | 12.70% | 3.20% |

### TABLE 1 — Top Collateral Management System Features

| Feature | Very Important | Rank | Somewhat Important | Very or Somewhat Important | Rank | Somewhat Unimportant | Very Unimportant |
|---|---|---|---|---|---|---|---|
| Accurate and timely information on exposure | 82.80% | 1 | 14.90% | 97.70% | 1 | 2.10% | 0.20% |
| Consolidation of exposure across product types / agreements (i.e. OTC Derivatives (ISDA CSA), Repo (GMRA), Stock Lending (OSLA)) | 65.60% | 2 | 30.60% | 96.20% | 2 | 3.40% | 0.40% |
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