risk management OTC DERIVATIVES

RAJEN SHAH AND KARL

Executive summary

- Collateral management is an important risk mitigation tool, offering corporates the same cushion against credit risk as it does their sell-side investment bank counterparts.
- Treasury teams are often attracted to OTC derivatives as part of hedging strategies.
- Several options exist to help treasurers optimise the systems and reporting aspects of collateral management.

decade ago, collateral management for over-the-counter (OTC) derivatives was practically unheard of. But since the International Swaps and Derivatives Association (ISDA) published its guidelines for collateral practitioners in 1998, the use of collateral has mushroomed, largely due to an increased desire to mitigate credit risk. Despite this rise to prominence, many corporates continue to treat collateral management as little more than an operational hurdle. But a clear understanding of collateral usage and the sell-side's changing appetite for collateralisation can help corporates avoid unnecessary costs and mitigate risk by developing sound collateral management programmes.

COLLATERAL USAGE The sheer volume of OTC derivatives has driven collateralisation. Higher values of outstanding transactions are accompanied by greater credit risk and so greater need for collateral and collateral management. Double-digit annual growth in the OTC derivatives market is predicted for the foreseeable future. In 1998 the estimated total value of collateral in circulation against OTC derivative transactions was \$200m; in 2005 (last available data) this figure had risen to \$1,200m, which represents 500% growth over only seven years.

The 108 respondents to the 2005 ISDA survey were overwhelmingly investment banks and brokers, who signed a total of 70,000 credit support annexes (CSAs), which are the legal agreements that define the parameters by which collateral can move. It is estimated that six



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out of seven CSAs signed by the respondents were executed with non-respondents (in other words, the large buy-side population), asset managers and corporates. The real collateral management challenges and stories lie with these market participants.

2005 was a benchmark year. For the first time, over half of all OTC derivatives transactions were collateralised, although obviously this also means that just under half were not collateralised. These deals are underpinned only by confidence in the financial strength and regulatory rigour of counterparts, thereby potentially exposing both parties to credit risk.

CHANGING APPETITE FOR COLLATERAL The rationale for the growth in collateral usage is abundantly clear. Investment banks dominate the sell-side of the market, and the imminent introduction of the proposed capital accord under Basel II places pressure on them to avoid uncollateralised exposures, so their goal is to collateralise as many transactions as possible. Fortunately, for investment banks, Basel II recognises a broader array of collateral types as eligible assets than its predecessor.

The downstream impact of collateralisation is also significant: credit lines are used more sparingly, credit reserves may be reduced, more business may be transacted and so more profits made. These benefits apply equally to the institutions buying the OTC derivatives, such as corporates. Collateral offers corporates the same cushion against credit risk as it does their sell-side counterparts.

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RISKS AND COSTS OF COLLATERAL MANAGEMENT The

underlying dynamic of collateral management is clear: corporate treasury teams and fund managers are often attracted to OTC derivatives as part of hedging strategies. From a back-office perspective, this desire to trade manifests itself as a series of systemic and operational hurdles, such as data management, expertise and operational workflows. Collateral management is often viewed as one of these hurdles.

The buy-side resorts, in the first instance, to counterparty pricing to identify the value of the underlying OTC derivatives transactions. Often, user-developed spreadsheets are employed to support valuation and keep track of all other data management and monitoring requirements. Manual procedures are put in place to bridge the numerous gaps between inputs and outputs that the valuations and spreadsheets create, opening up the possibility for information mistakes.

Also, this method of collateral management typically does not accommodate any reporting for risk management or compliance purposes – a considerable and often unseen risk. It is generally accepted that a collateral management programme is only as good as the reports it generates. At some point, a senior member of staff may have to make a decision on a collateral-related counterparty and if data on that counterparty's activity levels and collateral balances is not immediately available, serious consequences could ensue.

From a cost perspective, the trend is also clear. Many companies

underestimate the cost of a spreadsheet-based solution. A 2002 ISDA survey suggested that for collateral programmes with fewer than 50 collateral relationships (those dominated by spreadsheet solutions), the average cost forecast was \$350,000.

A key area that is generally overlooked is the cost of carry for cash collateral. Most CSAs will describe the rate of return payable on cash held as collateral. Many corporates use only cash collateral as they are unable to systemically and operationally support the use of securities. Where cash is received as collateral, it is simply combined by the treasury with all other cash held. The differential between the rate earned and paid is therefore lost among general accounting processes. In short, some companies may not meet the required rate of return outlined by the CSA and may not monitor the shortfall, resulting in financial loss.

COLLATERAL MANAGEMENT OPTIMISATION The OTC derivative user has various means to help reduce the risk or cost of collateral management without a corresponding reduction in service.

When discussing how to optimise the cost of carry for cash collateral, companies must be able to recognise and monitor that cost. Given the intraday access requirement for cash collateral, overnight investment is often the maximum duration, which obviously limits the potential return. Non-cash collateral would be cheaper for many corporates, but for those programmes dominated by spreadsheets with limited operational resources, the use of securities as collateral, while ultimately far cheaper, is often unsupportable.

From a systems and reporting optimisation perspective, several options exist. Increasingly, software providers are offering off-theshelf packages for managing CSA data and other operational workflows. Once this data is effectively managed, any number of reports can be produced to help with future decision-making and current collateral management administration.

Outsourcing is a more recent option designed to help companies streamline their systems and reporting. Some collateral agents, active in the stock loan and repo space, are adapting their services to include OTC derivatives. Typically part of banking securities services/ custody groups, these agents provide independent valuations, expertise and systems around CSA management and collateral movements, and can hold and pledge securities as collateral without problem. They offer a bundled service designed to address the systemic, operational and technology risks inherent to buy-side participants in the OTC derivatives market.

CHALLENGES From a collateral management perspective, a series of challenges confront buy-side users of OTC derivatives. As collateralisation grows, an increasing number of participants will be forced to address the significant risks inherent in their current collateral management programmes. Collateral management is an important risk mitigation tool and buy-side market participants should make intelligent, educated and informed decisions when thinking about implementing and managing a programme.

Rajen Shah is Head of Clearance and Collateral Management at JPMorgan Chase Bank's Worldwide Securities Services division. rajen.m.shah@jpmorgan.com

Karl Wyborn is Head of Derivatives Collateral Management Sales at JPMorgan Chase Bank's Worldwide Securities Services division. karl.wyborn@chase.com www.JPMorgan.com