

# Mitigating Risk amid Credit Volatility: A Sharper Focus on Derivatives Collateral Management

By Scott Linden

**W**hile ongoing credit risks have presented new challenges for just about every type of investment instrument, none has been more challenged than derivatives. This often misunderstood investment instrument has suffered more than its share of negative headlines and recent developments in derivatives collateral point to the need for better credit risk mitigation.

If money makes the world go around, then collateral keeps everything in its place. Among the most fundamental of financial tools, collateral has long been the firm basis upon which the world's financial transactions depend. It wasn't until relatively recently, however, that the use of collateral was widely acknowledged by the derivatives market as an effective credit risk mitigation tool. This has clear implications for collateral management as greater attention is being paid to the effective use of collateral to ensure that the correct amount is always in place. On this point, we believe that much more attention will be devoted to ensuring that excess collateral is not

left lying idle, partly because of the overall return implications, but even more so because of credit exposure implications.

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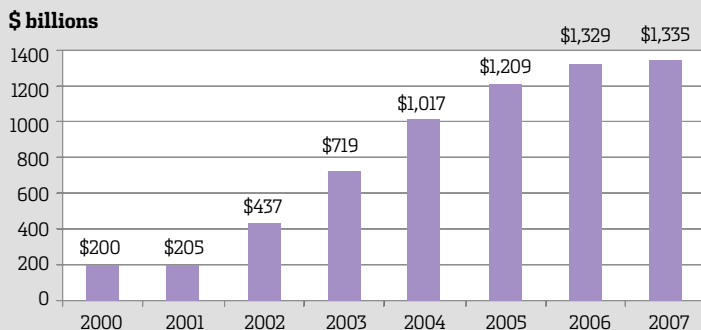
The 2007 ISDA Margin Survey results provide an excellent starting point for the telling of the derivatives collateral story. The results demonstrate a rapid growth in the use of collateral, consis-

tent with the overall growth in OTC derivatives trading. The volume of collateral in use grew from \$200 billion in 2000, to over \$1.3 trillion in 2007, a more than five-fold increase over seven years. We expect even further growth for 2008.

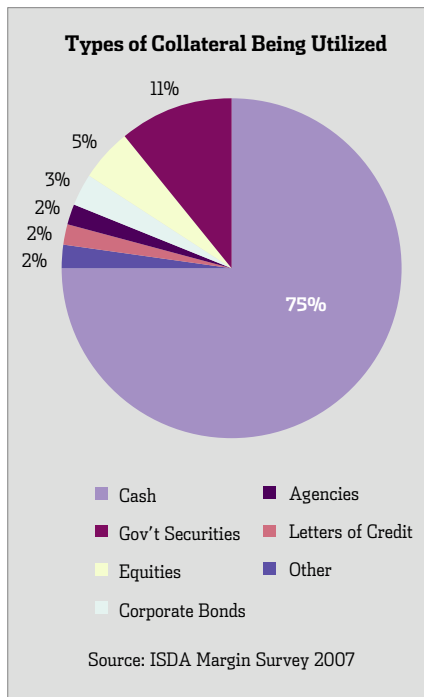
## **Cash is not necessarily King**

In 2006, according to the ISDA Margin Survey, cash collateral represented over 75% of all collateral used. Quite a large amount considering that it poses as many important questions as it answers, such as how the counterparty

**Onward and Upward:  
Growth in Collateral, 2000-2007**



Source: ISDA Margin Survey 2007



taking the cash as collateral can generate enough return for the pledger when the collateral is eventually returned to ensure there is not a negative carry. Another obvious question centers upon institutions who own billions of dollars worth of non-cash assets. Why should they be required to pledge cash as collateral when they have other acceptable assets readily available? There is, moreover, a strong argument in favor of a move away from the traditional emphasis on cash as collateral, and towards the acceptance of other forms of collateral, along the lines seen in the tri-party repo market. In the derivatives market, the vast bulk of collateral is cash, the balance being made up by U.S. Government and other sovereign government paper.

### **Why should institutions be required to pledge cash as collateral when they have other acceptable assets readily available?**

We believe the derivatives industry needs to rethink its overdependence upon cash. If the preference on the buy side is to use securities rather than cash, that preference surely needs to be considered. The industry needs to

accept that there is a lower cost way of operating rather than using cash. Basel II pushes the 'collateral envelope' by providing capital relief for a wider range of collateral asset classes (previously, only unsubordinated sovereign and supranational debt were eligible for capital relief), which should provide further incentive for the expansion of collateral types.

### **All in Agreement: The Growth of Collateral Agreements**

The rapid growth of collateralized derivatives over the past few years is only one part of the story. Another part is the growth in collateral agreements, which have more than tripled since 2002, when there were 38,543 in existence. Today there are 132,732, up 21% from the 2006 survey. Collateralized exposure has increased from 30% in 2002 to over 60% in the latest survey. Putting an agreement in place is of course the necessary first step in the process of collateralizing derivatives, paving the way for trading in them and the accompanying growth in collateralization. There are three key reasons behind the growth in collateralization:

- 1. Market Volatility** - Mortgage write-downs, the credit crunch and overall investment volatility have reinforced the importance of collateral as a risk mitigation tool.
- 2. Broader Usage** - Increased use of derivatives in investment portfolios

has caused the derivatives market to expand well beyond traditional dealer-to-dealer and dealer-to-hedge fund collateral relationships.

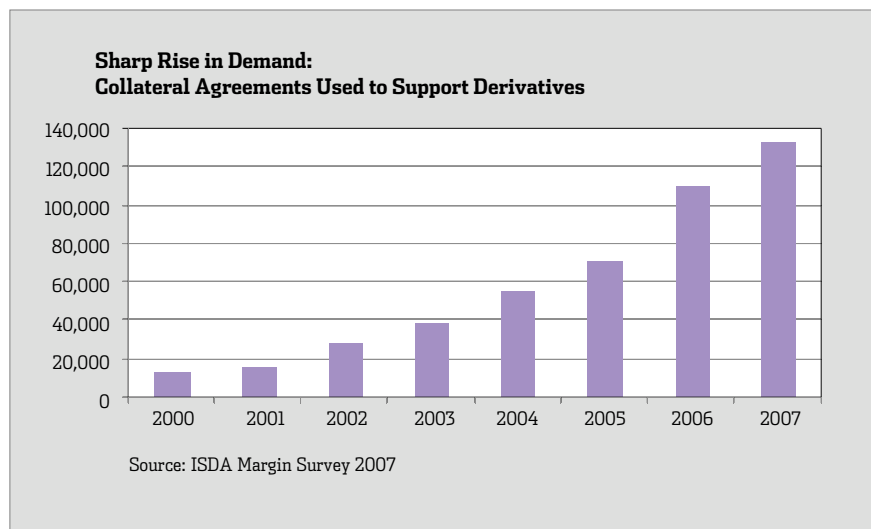
- 3. Stringent Oversight** - In addition to the Basel II and UCITS III accords, industry regulators in Britain and the U.S. have recently launched a review of investment banks' collateral management to see how well they would withstand a crisis. This will likely lead to new regulatory proposals and further increase the demand for derivatives collateral.

### **Exposure to Counterparties**

Once viewed primarily as a sell-side issue, derivatives collateral has fast become a buy-side issue due to heightened sensitivities surrounding default risk. Recent credit shocks, along with losses incurred by some high-profile dealers, have intensified counterparty exposure concerns and have increased collateral demand on both sides of the buy-sell equation.

### **Recent credit shocks have uncovered counterparty exposure risk and have spurred an increase for collateral on both sides of the buy-sell equation.**

The trend towards the greater use of collateral in derivatives has clear implications for the market, extending beyond the philosophical into the purely practical. Wherever collateral is



demanded, pledged and taken, there is a need for collateral management. The mechanics of dealing with the requirements of collateralization agreements need to be put in place in the interests of maximizing the benefits. While collateral is a well-known risk mitigant, it can also introduce risks of its own and these must be acknowledged and carefully managed. Curiously enough, even in this era of extensive automation, spreadsheets are still used by newer entrants to help administer and manage derivatives collateral. While this approach may be low cost, the drawbacks in terms of operational risk and accuracy are considerable.

**Build, Buy or Outsource?**

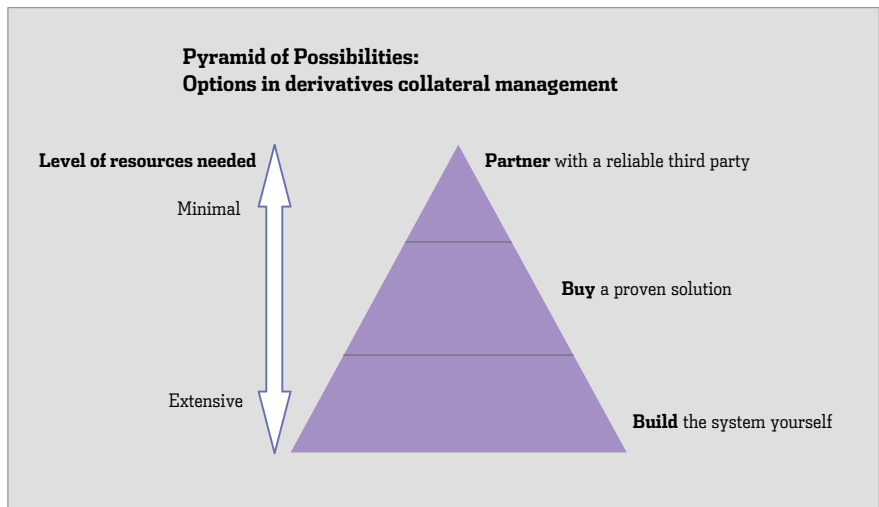
New entrants into the derivatives market have three principal alternatives to meet their collateral management requirements. They can build a system themselves, buy a proven solution, or pass the task to a reliable third-party provider. Of the three options, building a proprietary system may be the most challenging way to go about it.

***The immediacy of credit concerns have led institutional investors to partner with proven third party providers.***

The immediacy of credit concerns, combined with the lengthy time needed to develop, test and launch collateral management systems, have led institutional investors to partner with proven providers. Contributing to the trend away from proprietary systems and toward independent service providers are the extensive resource inputs, in terms of personnel, technology and capital, needed to maintain the system over the long run.

**Derivatives FAQ: What is happening to derivatives trading?**

Derivatives trading continues to grow rapidly, driven by demand from existing established players in the market, hedge funds and the increasing tendency for long-only managers and investors to use derivatives to enhance portfolio returns



**What impact will recent market volatility in world markets have on the derivatives industry?**

Volatility is likely to increase the use of derivatives as a risk mitigation tool still further. It is also likely to increase demand for collateralized derivatives as investors become more aware of, and more nervous about, counterparty risk exposure. This echoes developments in the cash lending markets, where uncollateralized borrowing has virtually disappeared in recent years.

**Cash has traditionally played an important role in derivatives collateralization. Will this continue?**

Cash is considered good because of its quality, its obvious liquidity and its ease of use. But it can be expensive, even wasteful. We believe the industry needs to think beyond cash and towards the use of other forms of collateral that investment firms have in their portfolios.

**What are the key options available to new market entrants in terms of the systems needed for collateral management?**

They have three main options: Build their own, buy someone else's, outsource to a reliable third party. Of the three options, building a proprietary system may be the most challenging way to go about it. The immediacy of credit concerns, combined with the

lengthy time needed to develop, test and launch collateral management systems, have led institutional investors to partner with proven providers. ■

**ABOUT THE AUTHOR**

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