

MANAGING A SHRINKING POOL OF COLLATERAL AT A TIME WHEN REGULATORS REQUIRE MORE OF IT WILL BE AN OPERATIONAL CHALLENGE. BUT IMPROVING EFFICIENCY AT EVERY POINT IN THE COLLATERAL MANAGEMENT PROCESS WILL HELP MARKET PARTICIPANTS TO AVOID A COLLATERAL CRUNCH.

According to figures from Clearstream and Accenture, an estimated €10,200bn of securities were used as collateral in 2010. This compares to the global banking system's total assets of about €70,000bn. The 2012 survey by the International Swaps and Derivatives Association (ISDA) estimates that \$3600bn of collateral was posted in the over-the-counter (OTC) derivatives market in 2011, a rise of 24% from 2010.

The use of collateral is expected to rise further as regulatory initiatives to improve global systemic stability continue to bite. Driven by the move to central clearing of OTC derivatives, new requirements for initial margin, tighter collateral requirements for exchange-traded funds and other Undertakings for Collective Investment in Transferable Securities funds, Basel III liquidity requirements and an increase in collateralised lending, experts believe that the regulatory responses to the 2008 financial crisis could push up collateral requirements by as much as \$4000bn to \$5000bn.

At the same time, however, the supply of eligible collateral is falling as the sovereign debt crisis and tougher rules on the reuse of collateral take their toll. The International Monetary Fund (IMF) has estimated that the supply of collateral could shrink by up to \$9000bn by 2016.

### Testing times

Managing shrinking pools of collateral in a regulatory environment that is

asking for more collateral will be a huge challenge. In the future, all OTC derivatives will either have to be cleared or collateralised across multiple central counterparties (CCP) and between a myriad counterparties, yet collateral pools are fragmented across geographies and business silos, and processes remain largely un-automated. Optimising the use of collateral will be a crucial differentiator in the new regulatory reality.

The resulting operational hurdle is likely to be just as significant. A particular pain point is the area of margin processing.

The exchange of margin call messages between institutions – whether between bilateral OTC derivatives counterparts and their prime brokers, or between CCPs, their clearing members, and the clearing members and their end clients – is one of the critical processes in collateral management. Growth in trade volumes and market volatility, combined with the increased adoption of real-time risk management and with the expected survival of multiple CCPs in and across different regions and product sectors, will mean that the frequency with which margin is called to secure exposures will continue to drive rapid growth in the number of messages that will have to be issued, acknowledged and processed.

Collateral-related message volumes are therefore set for explosive growth. Unfortunately, however, collateral management, and in particular margin processing, has not achieved the level of straight-through processing (STP) realised in other areas, such as electronic trading and settlement processes.

### Automating processes

A recent survey of best practice in collateral management operations by risk management consulting firm, InteDelta, confirmed that margining remains a time consuming and manually intensive process – particularly in the bilateral OTC derivatives and repo/secured borrowing



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# Automate to avoid the collateral crunch

and lending (SBL) markets. Margin calls are often communicated by fax or email, breaking the STP chain as calls must be manually interpreted and processed. This increases the risk of error and hampers institutions' ability to respond to margin requests in a timely manner, particularly if any aspect of the collateral call is disputed.

A limited amount of 'standardisation' has been achieved in some areas. In the tri-party repo and SBL model, for example, margin calculation and issuance is done by the tri-party agent, generally in the form of electronic files. Because the tri-party repo market is dominated by only a small number of agents, a degree of standardisation has been reached.

Similarly, in markets where a CCP exists, the concentration of trade flows to the CCPs has also led to a certain level of standardisation being achieved. However, institutions engaged in global derivatives trading will interact with multiple CCPs, which means that several proprietary file processing solutions will have to be used in order to achieve automated input and processing.

Collateral management is therefore characterised by silos of operational activity along product lines, with partial de facto messaging standards established by CCPs and tri-party agents. In aggregate, it remains unstructured, prone to operational risks, vulnerable to volume fluctuations and costly in terms of the resulting intensity of manual processing in the absence of STP.

The new regulatory reality means this will have to change. Financial institutions will need to improve processes and organisational structures (operate collateral management as a central utility) to make more efficient use of scarce collateral; they need to ensure that the right collateral is in the right place so that settlement can take place. Ever tougher risk management requirements will demand that institutions demonstrate they have visibility on their collateral and their counterparty exposures. None of this is possible in a manual world.

### Mind the gap

The use of open standards for the electronic processing of core messaging flows would help institutions to meet these requirements. Open standards will enable higher levels of automation, the systematic capture and transmission of information between multiple different end points and infrastructures, and facilitate the processing of vastly increased messaging flows.

That message standards could meet

## Collateral management straight-through processing

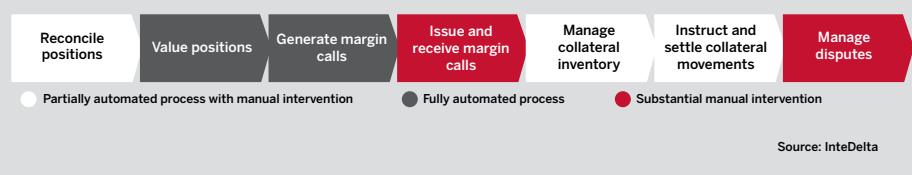
In many institutions, the process from receipt and overnight processing of position data to the calculation of margin calls is substantially straight-through. Positions are reconciled with counterparties and marked-to-market so that counterparty exposures can be updated.

However, the communication of margin calls and their subsequent acknowledgement and processing remains substantially manual. E-mails, fax and phone are used to exchange margin calls with counterparties. In most cases, e-mails are generated automatically from the margin call data calculated by the collateral management system, but are manually checked and released by the collateral management team. Where electronic delivery of margin calls exists, it is generally proprietary; many such bespoke interfaces may therefore need to be maintained by market

participants. This is the major impediment to true end-to-end, straight-through processing of collateral operations.

The level of straight-through processing achieved for the instruction of collateral movements varies. Cash instructions are more typically straight-through, but the increasing volume of securities movement instructions often requires rekeying into the appropriate trading and settlement systems. A wide spread of manual and automated processes exists for the calculation and payment calculation of interest on collateral balances.

The process of resolving disputed margin calls is necessarily manual, as mismatched positions or valuation differences must be investigated.



these requirements and were necessary for the margin processing of OTC derivatives was quickly recognised by the industry in its response to the financial crisis. The initial commitment to publish a collateral management roadmap and evaluate electronic messaging for margining was set out in the October 2008 letter to the lead regulator, the Federal Reserve Bank of New York. ISDA subsequently published its requirements for an open standard for electronic exchange of OTC derivatives margin calls, covering the key processes of margin call, collateral substitution and interest processing.

So far, however, efforts to provide for collateral messages in industry communication protocols have failed to close the collateral management STP gap, with the exchange and processing of margin calls and associated messages remaining a major missing link.

Many argue that the ISO 2022 universal financial industry message scheme initiative provides the answer. It seeks to draw together and expand existing messaging protocols and to create an evolving, product agnostic message standard. ISO 2022 (of which Swift is the registration authority), delivers a standard that addresses the increasing requirement to manage collateral across multiple product types.

The financial industry needs to quickly implement a genuinely cross-market standard. ISO 2022 it is.

## biography

Arun Aggarwal is head of UK, Ireland and Nordics at Swift.

## Key ideas

### Pressure point

- **Collateral requirements** could be raised by as much as \$4000bn to \$5000bn in the wake of the financial crisis.
- **The IMF** has estimated that the supply of collateral could shrink by up to \$9000bn by 2016.
- **New regulations** are asking for more collateral.
- Margining remains a **time consuming** and manually intensive process that increases the risk of error.
- **Tougher risk management requirements** demand institutions demonstrate visibility on collateral and counterparty exposures. None of this is possible in a manual world.