

The middle link - STP

Straight through processing for OTC derivatives remains a work in progress, though 2009 may see further investment, writes **Ben Roberts**

Late November 2008, at a briefing held in Paris for Charles River Development's French based clients of buy side decision makers and consultants, asset managers agreed that 'Directive MIF' and derivatives are the main technology drivers in the French market today.

Such discussions – and conclusions - may dominate 2009. Over the counter derivatives, from common interest rate swaps to esoteric 'window barrier' options, will continue their ascent in trading and portfolio management by wide accounts. One recent use has been adopted by pension funds as part of the hedge against longevity risk, particularly in the Netherlands.

But the challenge of processing derivatives and related structured products hits the core of many of the credit crunch's major themes: opaque products that escape clear pricing, failed trades, internal log jams, banks operating in silos leading to miscommunication. In particular, the buy side and sell side are "light years" apart, according to Jake Sweeney of Smartstream in both operation and investment. Trade processing works in four stages: execution, confirmation/affirmation, reconciliation and valuation (see graph, facing page, for breakdown of the post-trade processing costs for these four stages).

But as surviving banks looks to restructure to enhance the middle office, a straight through process from front to back remains a necessity for many.

Straight through processing (STP) is possible from a standardisation of a product. Equities and bonds are univocally understood as trading products when sold and bought; there is a readily identifiable price and a limit to the lines of information as to their



“What you gain in the front office, you will lose in the back office”
Bob Park, FINCAD

structures. Such products are ripe for technology that can speed the process of clearing and settlement. “What is repeatable can be automated,” says Patrick Schumacher at Wall Street Systems. Derivatives are by tradition privately negotiated; the terms of the contract are limited only by traders' imagination as speculations of stockmarkets, interest rates, commodities and weather among others

are adapted and sometimes combined in the hunt for returns.

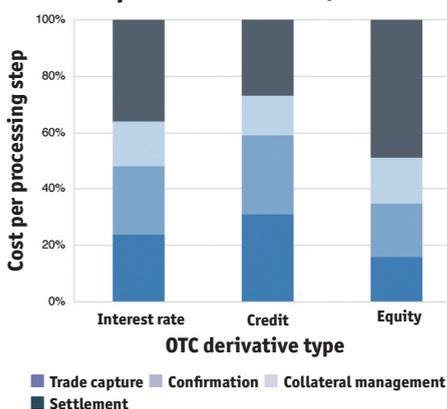
The variations and potential complexity hinder automation, providing a headache for technology vendors and banks alike. Bob Park, CEO of FINCAD, the derivatives risk analyst, says: “Over the counter derivatives business is the last part of the business arriving at the party for STP. As you get into it more you understand why it's taken so long. The landscape is very unlevel. Historically, front offices and sell side institutions have had the most knowledge, the most technology, and the most budget. As you move further towards the back office, you find it has not had the budgets or the specialists - the rocket scientists - of the front office.”

As a result, back offices have been in a perennial catch-up. New deals and structures are created in the front office and the back is obliged to settle the trades. The distance between the

two can be considered a gulf, according to some. Park believes collateralised debt obligations (CDO) – some most infamously containing sub-prime mortgages – are the prime example of the debilitating division. “The CDOs were put together on the sell side using their valuation techniques and the model-driven risk management. We’ve seen some failures in those models. It seems to me that the buy side made those decisions on the basis of the ratings that the CDOs have.” He estimates that it can occasionally take 30 days to settle a credit reverse trade, and this may become critical. “What you make in the front office, you lose in the back office.”

A report by Celent, a strategy consultant, commissioned by Smartstream, found trade capture and confirmations/affirmations still constitute over 50% of OTC post-trade processing costs and are therefore still a major issue. In addition, “the buy side desires technology to address the post-confirmation process (the other half) in order to reach the next level of efficiency”. Interestingly, Celent adds that the buy-side, according to Celent’s interviews with industry participants, favours centralised, confirmation services such as Deriv/SERV that will not ultimately represent the next stage of development. “In the future,

% of cost per OTC derivatives in post-trade process Source: Oliver Wyman Data



exchanges or even a group of dealers may expand to assume the role of central counterparty to some of the more vanilla products that now trade OTC”.

Instead, Smartstream’s Transaction Lifecycle Management system aims to link-up different service providers. This includes trade affirmation/confirmation routing to DTCC Deriv/Serv, Markit Wire – two of the leading components of the cycle in the market or locally, peer to peer. Settlement event management, including counterparty pre-settlement reconciliation to eliminate post-settlement cash breaks; payments netting by counterparty by currency; and SWIFT payment message generation.

Wall Street Systems found in a survey that there was an average of 90-95% STP rate for interest rate swaps, but currency options had an average STP of 42%. The disparity shows the shortfall in information and how many banks – far behind a common information understanding – may still work in silos.

Stephen Andress, global head of derivatives at Northern Trust, believes the development of straight through processing for derivatives is a global effort. “For over-the-counter derivatives there is a global effort towards better process, whether from DTCC, Markitwire [the trade processing platform] - though there’s no specific technology. The key is a common understanding.”

To this end, the company finally adopted the eight-year-old Financial Product Mark-Up Language (FpML), a messaging format that establishes a common understanding for buy and sell sides of different institutions devised by the International Swaps and Derivatives Association (ISDA) after consultation with banks. FpML was created based on inconsistencies of definition in collaboration with banks. Institutions will participate, though there will always be a few that don’t.

“On one side, people have a gut

SAS and FINCAD: research findings

In December 2008, FINCAD, the derivatives risk analyst, and the Economic Intelligence Unit of SAS, the business analytics software developer, released the results of their risk management survey. In a global survey of 316 financial services executives:

70% believed credit crisis losses were largely down to a failure to address risk management issues

59% said they are reviewing their risk management practices

Celent’s findings, commissioned by Smartstream

The number of events related to OTC derivatives trades (new trades, confirmable amendments, partial and full terminations, increases/decreases, and novations) are on the rise for all instruments.

All exotic OTC derivatives follow the same method: the trade terms are negotiated, captured, and transmitted to the operations centre. Each side then affirms the details of the trade are correct.

Most costs are concentrated in the front office (more than 60%), with less than 10% in the back office.

The buy side favours centralisation and user communities for STP

The main issue that interested regulators around OTC derivatives are the losses by the buy side over the last decade.

STP for Payments: Vocalink

Straight-through processing (STP) is more of a journey than a destination. All banks have pursued STP initiatives to improve efficiency, but the UK Faster Payments Service heralds a new era in STP and is a world first. Now single immediate payments can be effected by telephone or internet. Since its launch in May, nearly 60 million payments worth GBP24.9 billion have been processed.

The Cruickshank Report of 2000 highlighted a need for fast low-cost payment services in the UK, but other factors have refined the scope of Faster Payments. Technology has played a vital role in the launch of new payment services. Many new banking services use the internet or mobile technology, or both, blurring the line between different payment channels. The Vocalink Real-Time Payments Platform supports channel consolidation. It has been built using Efund's Advantage switch, running on HP Non-Stop, with a bespoke back-office and settlement engine deployed on a best-of-breed Java/Oracle/Sun technology stack.

The Vocalink strategy reflects the inevitable convergence between internet, mobile, and ATM. Banks can avoid the expense of building and supporting independent infrastructures and can support multiple instrument types using standard formats in real time. Corporate customers benefit too. With real-time payments, the status of each transaction is instantly available, so fewer people are needed to investigate failed payments. Corporate treasurers welcome the powerful combination of real-time payments and standardisation.

reaction that derivatives are seen as scary, but what we've seen is a number of occasions where people have lost a lot less than they would have by using derivatives. Next year we will see more reporting requirements and expectations for independent valuations."

Others see the variety of derivatives as leading to different countries having different processing capabilities. Pat Schumacher at Wall Street Systems says: "If you were looking at trade processing costs in foreign exchange derivatives, for example, is a little bit more mature in Europe than in North America. But fixed income and equity processing is more mature in North America than in Europe, so you will find variations in asset classes."

Wall Street Systems' Electronic Settlement Network – a pay-as-you-trade processing facility - deals only with simpler, 'vanilla', derivatives, though Schumacher believes even these would have been impossible to automate only a few years ago. He is a great advocate of FpML, and runs the FpML/FX working group as it attempts to widen the common language to as many types as derivatives as possible – "credit, equity, commodities, and some work on other non-derivative instruments".

"There are some software vendor focusing on the exotic, niche things," he continues. "We focus on a different problem – the automated routine things, which sounds simple, but where the engineering tricks come in is 'how can you make it scaleable to keep up with the volumes in an efficient way where we can lower their cost?'"

The boom in credit default swaps in the last year has seen many clients of Wall Street Systems attempt to enhance their processing systems. "We've seen clients coming to expand the use of existing infrastructure they've already installed," he says.

The consolidation of banks – a definer of 2008 as Bear Stearns, Merrill Lynch and Washington Mutual were

taken over, Fortis and Lehman Brothers broken up – also poses a problem for processing structured products and linking the front and back office. "The front office will have a lot of different specialised things for them to support their dealers and money making ventures, but in terms of the trade processing piece of this in banks doing it right, there no reason why it can't flow into common trade processing model," says Schumacher. "The challenge is in these larger banks that have absorbed other banks and they have people scattered all over the globe and have different applications and software – to get them to fit into a common model is tough."

Jake Sweeney of Smartstream says process pitfalls also make life difficult when a regular counterparty fails. "People try and unwind their positions and need the ability to do that quickly. The problem is people couldn't really calculate their exposure. Smartstream's system sits in the middle as a one-stop shop where you can see the entire lifecycle of your trade. So we're not going to be the system you input the trade in, we're simply going to provide visibility from front to back and then manage all the lifecycle events such as rate fixings in the back end, so you have one place to come to see that."

But despite a number of systems that apparently satisfy individually the five stages of process, he says there is still little automation of confirmation. "Systems certainly exist, still predominantly on the sell side, though the buy side in some institutions will have the ability to capture some of those exotic details. But most of them are processed manually, a lot of them can't get them in the front systems at all, so they are processed not by what they are but something that looks similar."

The gauntlet remains thrown down for both technological development and bank initiative this year to bring the buy side and sell side to parity. ■