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Standard CSA: Industry's solution to novation bottleneck gets nearer

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Given the volume of regulatory change being forced through the market, it might seem strange that the derivatives industry is mobilising so much of its collective effort on a seemingly dull initiative that isn't even on the regulatory agenda – the drawing-up of a new standard template for the exchange of collateral in the over-the-counter market.

Dig a little deeper, however, and it starts making sense: the existing credit support annex (CSA) has become the source of regular collateral and valuation spats between derivatives users. The problem has become so serious that novations between counterparties, as well as the back-loading of trades to central counterparties, have all but stalled – to the extent that end-users are complaining about a lack of liquidity in even the most plain-vanilla swaps.

"We have had some feedback from clients saying the product is not very liquid anymore because there are disputes and it is difficult to novate trades. At the end of the day, this is not the time to go to regulators and explain there is a lot of debate and dispute with collateral," says one derivatives specialist.

That's what could happen, though, unless the market gets its house in order. Luckily, dealers – led by the International Swaps and Derivatives Association – reckon they have a solution: a new standard CSA that will simplify and harmonise valuation practices and bring the industry more in line with SwapClear, the interest rate swaps clearing platform run by London-based LCH.Clearnet. Isda is working to develop an implementation plan, which could be approved by the association's board as early as this month. The industry group will then work towards implementation, with the first phase of the new standard CSA framework expected to be rolled out in 2012 – possibly in the

second quarter.

It is a complex problem, however, and a number of outstanding issues still need to be tackled. Even after these are resolved, derivatives participants will have to make the requisite changes to systems and processes – and these could be significant, particularly if banks have to run two systems in parallel: one for legacy trades under the existing CSA and one for new business under the standard CSA.

"People currently don't have any extra fields in their swap booking screens to specify whether this is a new trade or old-school-style trade. So there will probably have to be some work-arounds, like setting someone up as a new counterparty, even though the same legal entity trades under the old CSA. It adds up to a fair amount of systems work that could delay it," says one New York-based senior interest rates trader.

Dealers will just have to grin and bear it, because there's broad agreement that the alternative – leaving things as they are – is out of the question. The problem boils down to the number of options embedded in the existing CSA. Counterparties can agree a list of collateral that is eligible to be posted, and this can differ significantly between each trading pair – some might restrict the list to dollars and US Treasury bonds, for example, while others might include a wider variety of assets and currencies. Also up for negotiation is the threshold at which counterparties start posting collateral, the minimum transfer amount, and any additional triggers or termination events. Taken together, it means CSAs are like snowflakes – no two are identical.

"Virtually every pair of entities trading derivatives has a slightly different variant on the initial Isda CSA template – there are literally millions of distinct CSAs out there in the universe," says one New York-based dealer.

None of this used to matter – pre-crisis, dealers more or less ignored the embedded optionality in the CSA and discounted all derivatives using Libor, even though many recognised the overnight indexed swap (OIS) curve is theoretically the correct discount rate for cash-collateralised trades, as this is used to determine the interest rate paid on cash collateral (*Risk* March 2010, pages 19–22). The crisis changed all that, when the spread between Libor and OIS blew out dramatically. As a result, most of the major dealers began moving to OIS discounting, with the correct rate determined by the currency of the collateral being posted – so, for instance, a swap collateralised with dollar cash would be discounted using the federal funds rate, regardless of the currency of the underlying trade.

This gets pretty complicated when counterparties can choose what to post from a list of eligible collateral, though. Most dealers agree the correct discount rate should be based on the cheapest-to-deliver collateral – essentially driven by the assumption that a rational counterparty will always look to deliver whatever asset is cheapest for it. However, what is cheapest today may not be cheapest in the future, meaning dealers should look at the discount curves for each of the eligible collateral types, swapped into a single currency for comparative purposes, and consider what the cheapest-to-deliver collateral would be at each point in time. The final, theoretical step would be to consider how this could change as market conditions alter.

However, dealers are taking vastly different approaches to this – some are using a single discount rate for the entire life of the trade, based on whatever is cheapest now; others are looking at the cheapest collateral types at different points in time; while at least one bank is attempting to go further and fully value the option – although it would be hampered by the fact the instruments required to hedge are not observable in the market (*Risk* looked in more detail at the different approaches taken by dealers in March 2011 – see pages 19–23 of that issue).

This is complex enough when the derivative is cash collateralised – but at least the choice of discount rate is fairly uncontentious once the cheapest-to-deliver collateral is determined. If bonds

are included as an eligible collateral type, the issue becomes more complex still – should OIS or Libor be used as a discount rate, or something else like the repo rate, assuming a long-dated repo market even exists? And what happens if equities are posted?

Regardless of the approach taken, virtually all the major dealers are aware of the impact arising from collateral posting choices, with many working hard to better integrate operations teams and trading desks to ensure they are being as efficient as possible in what they deliver – and not agreeing to collateral switches that disadvantage them (*Risk* April 2011, pages 29–31). Even that is not straightforward. The English law CSA requires the consent of the receiving party before any substitution of previously posted collateral can be made – meaning counterparties may not be able to freely exercise the collateral switch option embedded in the CSA anyway.

This has led to a variety of disputes. In some cases, collateral switches are being refused; in others, valuation discrepancies are arising from the different approaches taken by dealers. Most seriously, though, dealers say novations have slowed to a trickle – basically because the remaining counterparty would now be facing a new firm, and so would be subject to a different CSA. This change in collateral terms can have a significant net present value (NPV) impact on that counterparty.

“You just feel you are getting shot at every day,” says the New York-based senior interest rates trader. “If you have a trade on with a client and you have to price an unwind, you not only have to price that, but you also have to consider the fact that if you lose it, you might get assigned to another dealer. You then have to think about the dealers that are looking at it and quote a price to be assigned. It can be worth a lot, and we have a couple of dealers where it could be worth a fortune because of the CSAs we have with them.”

This is particularly marked when trades are novated to a clearing house. SwapClear currently requires variation margin on interest rate swaps to be posted in cash, in the currency of the underlying transaction, with the relevant OIS rate used to discount the trade. That can result in some significant changes in collateral terms. For instance, a dollar-denominated OTC trade backed by a CSA that allows counterparties to post in dollar and euro cash would be discounted at the euro overnight index average (Eonia), assuming euro is the cheaper to deliver. When moved to the clearing house, the counterparty would only be able to post dollar cash collateral, and the trade would be discounted at the federal funds rate – which could have a sizeable NPV impact on individual trades in excess of $1 million in some cases, say dealers.

The new standard CSA should eliminate – or at least reduce – these problems, dealers say. The starting point for the initiative was to remove the obstacles preventing novation to the clearing houses – which quickly led to a proposed mechanism that broadly mirrors the SwapClear approach. “The reasons for doing this were to reduce the friction in novations, decrease the complexity of the risk management problem and reduce the discrepancies in valuations,” says one New York-based dealer involved in the working group. “A short step from that starting point is to have economic terms that are very similar to the economic terms used by the clearing house.”

The new framework will establish five silos, relating to those currencies with the most liquid OIS curves – dollar, euro, sterling, Swiss franc and yen. Under the standard CSA, individual trades will be allocated to one of those five buckets, with the relevant OIS rate used to discount the trade. So, a dollar swap would be allocated to the dollar silo, requiring counterparties to post dollar cash for the trades that reside in that bucket. Those swaps would then be discounted using the federal funds rate.

That removes the embedded optionality in the CSA and makes the valuation much simpler – but raises new issues. Most problematic is the fact that under this model, multiple flows of collateral in different currencies would be going back and forth between counterparties – creating cross-currency settlement, or Herstatt, risk. To take an extreme example, if two counterparties had traded a dollar

and a euro swap under the old CSA and those positions were completely offsetting, collateral would only be exchanged on the net exposure – which would be zero. Under the new model, a dollar collateral flow would pass in one direction and a euro payment would be made separately in the other.

"You could potentially have very large cashflows going in opposite directions between the same two institutions, which introduces Herstatt risk. Clearly, what you are then doing is increasing the systemic risk in the market – and I think the regulators would say any development that increases systemic risk could not be called progress," says a London-based trader involved in the working group.

A number of solutions have been proposed, including use of a CLS-type settlement mechanism – although that wouldn't be available immediately as CLS does not provide same-day settlement, meaning a vendor would need to step in to develop the infrastructure. As a result, a quicker alternative has been proposed, and is likely to be adopted by most counterparties when the new CSA is rolled out next year. Dubbed the implied swap adjustment mechanism, it essentially allows counterparties to net the various collateral flows in multiple currencies into a single payment in a single currency, using the overnight currency swap market to make the adjustment.

"With the implied swap adjustment mechanism, we can simply take these separate cashflows and net them using the overnight basis swap rate – and that is arbitrage-free. This involves some maths, but it's adding, subtracting, multiplying and dividing. The key advantage is that it doesn't require a central infrastructure to be built," says the New York-based dealer involved in the working group.

Some dealers are enthusiastic about this approach, noting it is relatively simple and flexible. "Potentially, it means a lot more people can participate," says the London-based trader involved in the working group. "Most hedge funds, for example, tend to sit on piles of dollars, which is the only currency in which they are liquid. Do they really want to set up a cash treasury department that posts multiple currencies around the whole time? I don't think so."

This approach would come with transaction costs – but some say the mechanism would be similar to what banks are already doing today. "Right now, banks are getting posted whatever their net collateral balance is in whatever currency or asset they happen to get, then switching that back into the currencies they need to fund their book. That is already happening today, and no-one considers it an administrative drag. All that would change is that they would essentially pay or receive a fee to compensate for the fact they have to switch currencies," says the London-based trader.

Others say they would prefer the vendor-type solution, and see the implied swap adjustment mechanism as temporary. "The goal is to get to a real settlement with all the currencies. If we cannot get to this immediately and so have to settle in one currency through an adjustment, we will do that – but it will be a temporary solution," says Elie El Hayek, global head of rates at HSBC in London.

Ultimately, the Isda working group is likely to propose a two-phase roll-out, with phase one available from next year using the implied swap adjustment mechanism as a stop-gap measure. Phase two would follow a request for proposal (RFP) process for a payment-versus-payment, CLS-type solution. Both mechanisms may eventually be available, with counterparties able to choose between them on a bilateral basis, some participants suggest.

"Phase one will probably use the implied swap adjustment mechanism for those who want to be early adopters of the standard CSA, and then phase two will be based on an RFP and a selection process for a linked-settlement or escrow-based solution for cross-currency settlement risk. This will require a longer-term infrastructure build by the market," says Michael Clarke, global head of counterparty risk operations and market infrastructure strategy at UBS, and co-chair of the Isda collateral steering committee. "Given the importance of timely collateral settlement to the market,

my view is that it may be prudent to have more than one method available in case there are any future operating issues with particular solutions."

Another issue is how to treat those transactions with more than one currency – cross-currency swaps, for example. LCH.Clearnet does not currently clear these instruments, but if it did, it would probably allocate the trade to one silo – most likely dollars, says Daniel Maguire, executive director at SwapClear in New York. "We couldn't have a cross-currency swap where a US bank pays dollars on the variation margin and a European bank on the other side wants to receive euro. We don't think it is appropriate for CCPs to be taking on forex exposure such as this. What makes most sense is that if it is a dollar cross, then we will value in dollars. If it is a non-dollar cross against euro, we may do that in euro."

Dealers say it is likely they will follow whatever approach LCH.Clearnet takes – although they point out there is little liquidity in non-dollar crosses in the cross-currency swap market, so the vast majority would probably be allocated to the dollar silo. In fact, the Isda working group is understood to favour allocating all cross-currency swaps to the dollar silo as a matter of course.

There is also uncertainty over how to treat the minor currencies that do not have liquid OIS markets. It had been suggested the minor currencies be allocated to the nearest relevant silo – so a Norwegian krone swap would be allocated to the euro bucket, for instance. Some had even proposed allowing counterparties to decide between them which silo to use – so one pair might have opted for a Norwegian krone swap to fit into the euro bucket, while another might have plumped for dollars. More recently, a proposal has been made to allocate any currency outside the five main silos to the dollar bucket only, to ensure greater standardisation and avoid any new hurdles to novation.

Again, some participants suggest they will ultimately look to follow the approach taken by LCH.Clearnet. The clearing house currently uses a Libor-style curve to discount Norwegian krone swaps, but Maguire says the firm may consider alternatives, including helping to develop domestic OIS markets. Either way, dealers say the five major currency silos will do the job in the first instance.

"There are still some issues around the minor currencies that don't have liquid OIS markets, but it is relatively trivial compared with the major currencies where you have most of your exposures," says El Hayek at HSBC.

Another point of discussion has been whether to apply the standard CSA to existing positions, or just to new business. The vast majority of dealers say it is likely they will apply it to new business only, due to the economic impact associated with changing the collateral terms on existing trades. However, it will be up to counterparties to decide on a case-by-case basis, dealers say.

"The standard CSA will include a number of options. Counterparties can elect whether it applies to new business or legacy business, and, if they've agreed to net the collateral payments using the implied swap adjustment mechanism, which currency to make the net payment in," says the New York-based dealer involved in the working group. "We have agreed to make it flexible and to allow multiple election options, so long as they don't compromise the absolute goal of a homogeneous valuation framework that is arbitrage-free with no friction to novate to a clearing house."

Other outstanding topics include legal, technological and operational changes. Dealers will need to adapt their systems to cope with the new calculation and settlement of collateral methodologies – an issue some banks say they have already made a start on. Meanwhile, market participants are hoping to develop a standard calculation engine for the implied swap adjustment mechanism, as well as a single industry fixing page for overnight currency swaps used for the purpose of the standard CSA interest adjustment. "We want to make sure there is no possibility of any disagreement over the computation by getting everyone to use the same inputs and interest calculations. We are very keen

to avoid introducing new sources of dispute," says Clarke at UBS.

Work also has to be conducted on the legal side – specifically, to ensure current legal opinions on the enforceability of the CSA still apply. This is likely to require legal counsel in each jurisdiction giving updated opinions, but Isda isn't expecting any major problems. "We have got some preliminary feedback from counsel in England and New York and they said it wouldn't change their opinion," says David Geen, Isda general counsel in London. "When the standard CSA is finished, we will ask counsel in all jurisdictions to confirm the standard CSA would be covered in their opinion, and ask them either to include an update in their next opinion or get a supplemental update. Given the nature of the change, I wouldn't expect there to be any issues in any jurisdiction."

There's a lot that needs to be done – a couple of hundred people are now involved in the initiative through various Isda working groups. It will take time to resolve all the outstanding issues, but dealers say the industry is firmly behind the change. "Everyone in the industry is quite invested in standardising the CSA. This is highly desirable from the point of view of novations and fungibility with the clearing house, and from a pricing transparency perspective," says the London-based trader.

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