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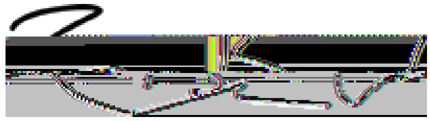

Given the focus of the Dodd-Frank Wall Street Reform and Consumer Protection Act and European Market Infrastructure Regulation, collateral optimisation has become a buzzword after collateral management. It is no longer seen as an arcane operational function, but a critical tool for risk mitigation, liquidity management and revenue enhancement.

In fact, a sponsored report published late last year by Finadium and sponsored by SunGard shows that collateral optimisation - including managing cross-product netting and the use of central credit counterparties - will be a major focus. The drivers behind the increased emphasis have been well documented. Although the regulations are not fnalised, there is no doubt that there will be a mass migration of over the counter products onto exchanges and through central clearing. While the ink is still not dry on the fnal version, the result will be a signifcant increase in the use of collateral and providers are

As with any change, there are opportunities as well as challenges for service providers. According to data from Calypso, these include presenting a single and consolidated view across the different collateral positions as well as capturing and fulflling all collateral obligations. It also means being able to model all the legal agreements and eligibility constraints so that collateral fexibility can be exploited. Last but certainly not least are employing advanced risk and scenario analysis tools to explore alternative ways of meeting obligations and optimising collateral use and exploring revenue generating opportunities based on collateral trading and optimisation.

Although all are important, breaking down the walls of the silos ranks as one of the highest and optimisation. Historically, frms have slotted their asset classes into different prisms such as fxed income and equities, each with their own operating procedures, technology and organisational structures. The situation has further been exacerbated by having not only vertical product

SLT: How big an issue is collateral optimisation at the moment?

David Little: It's certainly much bigger on the sell side than on the buy side but interest is growing across the market. There are several catalysts for the change:

ment. That means your daily process is about making sure you are calling brokers for margin and not just waiting to be called. This means having the flexibility to take and give multiple currencies and non cash as collateral. It means reviewing the terms of CSAs, and haircuts/eligibility criteria.

SLT: What does the change involve?

As the fnancial crisis enters a new and uncertain phase, collateral management has taken on a new and profound signifcance. For an insider's view on the issue, Securities Lending Times turned to Paul Harland, managing director with BNY Mellon Broker-Dealer Services, who characterises the current environment as one of "evolution, revolution and regulation."

SLT: BNY Mellon is one of the largest global collateral managers so I imagine you have a pretty good feel for what market participants are looking for?

Paul Harland: That's right, we have been one of the world's leading collateral managers for many years now. We pioneered this business in the early 1980's and have built the industry's most comprehensive collateral management platform, managing over US$1.8 trillion in collateral transactions every single day. We service dozens of major institutions including every major investment banking business in Europe and 16 out of the 20 primary dealers in the US.

SLT: What are the main drivers of client demands in the aftermath of the fnancial crises?

Harland: We would perhaps characterise with the words evolution, revolution and regulation.

We have seen evolution of the fnancing models driven by many things, including a desire to be self-funding, an aversion to reliance upon unsecured lines with a need to diversify funding sources.

The fnancial crisis caused revolution – a collapse of counterparty confdence, a scramble to quality and an increased focus upon collateral. More collateral is being called and on a more frequent basis. I will give you an example; in the OTC derivatives market many buy side frms had not previously considered calling collateral. In addition, Credit Support Annexes (CSA's), if signed, were rarely reviewed or relied upon. I can assure you, that's no longer the case and many of those frms - as many as 50 percent according to our research - have passed their collateral management to third-party providers like BNY Mellon.

Which brings us to regulation, something that has perhaps consumed more time and energy than anything else over the last couple of years and is going to significantly shape the markets over the next decade.

SLT: Can we talk about how the secured financing markets have behaved since the financial crises?

Harland: The equity financing market consists of multiple trade structures; stock loan short covering, equity collateral against stock borrows, upgrade trades, total return swaps, repo, etc. All trade independent of each other, and each has proven resilient thus far.

Doubtless in the immediate aftermath of the crisis we saw balances fall, but we are back well-above record highs.

SLT: Looking at the regulatory changes, what do you anticipate?

Harland: One thing is certain – collateral is going to be more important than ever before. Let's look at the proposals; we have Dodd Frank, ok it's been deferred for six months, but is going to happen, then we have EMIR and the detailed rules under ESMA due at the end of June 2012.

All swap dealers and major swap participants are going to be impacted and each of these entities will be obligated to post margin either to its clearing member, who will in turn have margin obligations to the CCP.

The gross numbers are potentially huge, as much as US$2 trillion has been suggested, though in reality no one can say with certainty yet and that's going to raise all sorts of issues.

The only thing that is certain is that there will be a cost, a cost that ultimately is paid by reduced yield and as much as 200 basis points have been suggested, but plenty is unclear.

Eligibility, for example: how does an equity-based institution faced with a requirement to post cash or G7 debt accommodate the collateral obligation?

Then there are timing issues. CCP's are suggesting multiple intraday margin calls and that is not something that's easily achieved outside of a book entry tri-party collateral manager.

That's why we are sure that collateral managers like BNY Mellon are going to be increasingly important and collateral optimisation critical for efficient operation of the post-trade infrastructure.

SLT: What is BNY Mellon doing in light of all these new changes?

Harland: Our clearance and collateral management services have been crucial to the sell side infrastructure and increasingly, over the last few years, our expertise and robust platforms have been relied upon by the buy side.

What does all that mean? We have a significant securities processing business and are a technology-based infrastructure provider. We have the scale, focus, expertise and long-term commitment to address market needs during this period of unprecedented change.

We are also consulting across all market participants in order to leverage our broad range of post-trade services. That includes not just collateral management, valuation, screening, margining and optimisation, but also middle and back office services and safe keeping and segregation of assets as well.

We are talking to buy side firms about fulfilling their obligations and helping them shape post trade infrastructure. We are talking to sell side FCM's because they also face infrastructure challenges and increasingly are looking to BNY Mellon to deliver on our core competencies whilst they focus upon theirs. Finally we are talking to CCP's who recognise that, whilst they may want to call margin many times a day, the requirement is challenging and a tri-party collateral manager is uniquely positioned to deliver.

SLT: Looking forward, what do the next ten years have for us?

Harland: Well, that's the $64,000 question, isn't it?

Perhaps I'm being overly pessimistic, but as George Bernard Shaw once said, 'If history repeats itself, and the unexpected always happens, how incapable must man be of learning from experience.'

Perhaps the thousands of pages of committee-generated rules will create the Nirvana of stability and certainty. An alternative view could be that regulators and authorities are creating a framework with potential for a systemic perfect storm.

What do I mean by that? Well all the CCPs are, relatively speaking, thinly-capitalised relative to value of business transacted. In addition, given their global business models, most do not benefit from a definitive lender-of-last-resort or support from any nation state. Similarly, their default funds, whilst large, are not limitless and though they comprise high-quality fixed income securities, we have all seen this summer everything has risk.

As Alan Greenspan said at the time 'This decade is strewn with examples of bright people who thought they had built a better mousetrap'. **SLT**

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Paul joined BNY Mellon in 1997, and previously worked as Client Executive for Investment Banks and Broker Dealers where he was responsible for several of the largest clients in Europe.

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Paul Harland
European sales director
BNY Mellon

SLT: How has collateral management changed since the financial crisis?

Paul Wilson: The market crisis and subsequent events have thrown risk mitigation of counterparty risk by the use of collateral management into the spotlight. The first trend has been the use of collateral by a broader base of users as well as a broader use of collateral in different scenarios.

The most evident changes have been in the broader use of tri-party to support the collateral process and exponential growth of collateral in support of OTC derivative transactions. In all instances, we have seen greater customisation and parameterisation in the collateral eligibility schedules across the board, as users look to set collateral parameters to more detailed and granular levels.

The industry is becoming more complex given the broader use of collateral. Collateral users are looking to maximise the effectiveness of collateral, via the use of a combination of optimisation and re-use tools, as balance sheet

Tri-Party Repo Infrastructure Reform Taskforce are being implemented.

Olivier de Schaetzen: Collateral management has clearly emerged from the crisis as a pillar of strength within the new financial market landscape. With the unsecured market drying up and regulators pushing banks to increase the term of their funding activities, many institutions are looking to optimise their collateral management capabilities in order to secure their business and remain competitive in such a volatile and fast-changing environment. Thus, collateral management has already increased in importance.

We're also seeing a new trend in how cash investors with term liabilities are massively turning to the repo markets to secure their investments. With this decision comes the requirement of managing collateral on a bigger scale. Many firms are naturally channelling this responsibility to professional triparty collateral managers, such as Euroclear Bank. The entry of corporate treasuries within the triparty service environment is clear recognition of the resilience and dependability of triparty solutions when it comes to investing excess cash. This trend is significantly changing the composition of the repo markets, where corporates and money-market funds are overtaking commercial banks as cash providers.

Another trend that will soon have a substantial impact on collateral management follows from new regulations, including the Dodd-Frank bill in the US and the European Market Infrastructure Regulation in Europe. The OTC derivatives market will undergo a major transformation, with exchanges attracting a significant amount of this business. This shift will inevitably have collateral management implications and increase the challenges of managing collateral efficiently.

Olivier Laurent: Since the financial crisis, counterparty risk being a major concern, the need for collateral has risen. In March 2010, ISDA produced a market review of OTC Derivative Bilateral Collateralisation practices: 78 per cent of derivatives are collateralised (73 per cent if we considered only buy-side counterparties). Since the crisis the usage of ISDA with CSD annex has been systematised.

Martin Wingate: Collateral management has

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All these trends confrm the increasingly central role that collateral management will have in our future fnancial markets. This will be most evident in the evolution of triparty services as an integrated part of the CCP collateral management process.

Laurent: CCP for OTC products (and more precisely new regulations for OTC products) will increase collateral and margin requirements. Collateral related services such as enhancement & segregated accounts will be needed. Collateral quality will also be something to look at, since strong eligibility constraints will occur.

Wingate: Clearing derivative trades through CCPs was a requirement introduced by regulators to reduce counterparty risk post fnancial-crisis. However the impact of this on frms is that the collateral departments will be faced with an increase in the number of processes involved: more agreements, more margin calls – more costs, and frms are turning to technology to facilitate these demands.

A contributing factor to the perceived increase in volumes will be the requirement for frms to use more than one CCP (as no one CCP clears all products) and some counterparties can't clear through CCPs. Both these factors will result in bilateral relationships remaining.

Clearing derivatives through CCPs will further increase margin-call activity with the emergence of intra-day calls. Bi-lateral calls between counterparties have historically only ever been subject to one margin call per day.

The amount of collateral that frms neef l є ᵀ q ") Þ ' l ᵀ Ĭ fnancial-

and GMSLA securities lending business processes became apparent, leading to a desire to

Lombard Risk

Milner: Having appropriate technology to address the new enterprise collateral management requirements is key. As previously indicated, the

A Growing Concern

Collateral management is a growing concern for the financial community. At a specific deal level, collateral pledging evolution can be anticipated based upon market evolution. However, complexity arises from large and growing volumes of collateralised deals to manage. The 2007/2008 liquidity drought unveiled the need to have a clearer and immediate view on collateral availability and requirements to support funding decisions.

It is critical to have a full and detailed view of the collateral portfolio with up-to-date information on what is pledged and available, as well as to be able to have a view on how it will evolve over time. In addition, it is important to understand its behavior under stress tests and other scenarios to better anticipate and optimise pledging.

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SLT: Could you outline the impact

crual process. Interest accrual is one of the long standing pain points and provides an additional unwelcome job during the frst few crucial days of the business month – incorporating the appropriate index rates into the electronic messaging platform should allow for this basic calculation to not only return a result but potentially complete the entire interest accrual process through to physical settlement.

Electronic messaging is a critical step in redefning an effcient and effective industry wide model which by all admission was largely unregulated prior to the sub-prime crisis of 2008. Successful completion of this part of the 'blue sky' model can act as a powerful catalyst to further initiatives such as a complete custodian offering to the industry and decreasing settlement risk in the industry as much as possible (with potential restructure the housing of all intra-Fed 14 members collateral at a third party, thereby removing all inherent settlement risk).

Successful electronic messaging infers a complete communication between at least two parties through a messaging platform. With the aggressive introduction of central clearing into the derivative market, linking to clearing houses provides an opportunity to complete the collateral exchange on a high percentage of the complete derivative market in as much a STP fashion as possible.

SLT: When it comes to understanding the importance of standardisation and messaging to reduce operational risk through automation what are some of the most common challenges faced and how do we overcome these challenges?

Cahill: The key challenge is not in agreeing that electronic messaging is the correct course of action for the future of collateral management but being amongst the frst institutions to align themselves to a particular technology/procedure and in effect stake their reputation on the solution.

The obvious temptation is to sit back and wait for someone else to discover the optimal solution, learning from any mistakes made along the way as well as unnecessary budget commitments – after all there is no regulation around implementing an electronic messaging platform, at this moment and time it is a 'nice to have'. At a time of heightened costing awareness, it becomes a 'risk' to develop towards an unproven solution; something deemed even 'riskier' when the requirement is to complete development is required on an in-house solution.

The decision to build messaging capability should also consider the ability to make any connectivity agnostic – this is an extremely important factor when considering the industry goal of working in an interoperable world.

industry has in a sense playing 'catch up' on establishing best practices and implementing regulations so a lot of the potential in the business has had to take a back seat to the former. The majority of people recognise the opportunity to proft from optimal collateral selection and more effcient use of what is already held (perhaps, unknowingly) in inventory. Also in relation to enhancing the balance sheet position is the ability the measure the immediate impact of bringing existing clients positions under the governance of a collateral agreement – this currently (in most cases) provides an untold beneft to the daily P&L.

It is my opinion that the industry as a whole could be more joined up – one of the defning characteristics of the collateral industry is that we are not in competition with each other but simply striving to achieve a best practice. Currently the CIWG is chaired by ISDA (formally the CFG) however this can be also operate to effect at a sub level in order to drive the analysis behind the suggestions/hypothesis derived through the former communication forum.

SLT: Going forward will we see technology continuing to play an increasing role in collateral management and how will this change the collateral management landscape going forward?

Cahill: Absolutely, technology will not only continue to drive the industry but also the nature of the business offering to a larger extent than before. I think we can all agree the collateral industry was to some degree, unregulated and seen very much as a back-offce function prior to 2008. The emergence of clearing houses and the aggressive implementation timelines across the various products are telling us that fnal margin results have to automated, so the next logical step is to automate the process that gets us to that point.

Another notable booking related issue emanating from the sub-prime crisis is the importance of independent amount on sensitive trades – currently, collection of this is owned by the collateral management team, the is an argument that this 'charge' should form part of the initial trade settlement – for this to take effect, it would need a more complete technical link between trading and collateral systems.

The future of the industry is centered on technology especially if we are going to achieve the well advertised concept of 'interoperability' – volumes can only go one way and the strategic answer is not for each institution to hire more heads to spread it out. My opinion would be that in fve years we see a near complete STP industry (amongst the Fed 14 at least) facilitated through a team of-20( )-142(th ntly)a

SLT: Firstly, can you tell us a little about the history of 4sight and the range of products it provides to the market?

Palliser: The company was spun off from OM Technology in 2003 and historically has been a provider of integrated stock loan and repo systems across all market participant types – direct/agency lenders, niche and global broker dealers etc. Typically, for these institutions collateral management was a function of the trade life cycle rather than a discipline in itself.

Over the last two years, however, 4sight has become far more involved in collateral management as a stand-alone discipline from a collateral optimisation, liquidity management and fee generation perspective rather than as a mere risk mitigant.

If we look back two or three years, traders in many houses were tasked to focus their efforts on P&L generation with only a secondary focus on the collateral management of such trades. In this model, managing collateral was frequently seen as a related but autonomous back office operation.

However, things have changed greatly over the recent past. Our clients are increasingly seeking to optimise their collateralisation processes to ensure that, wherever possible, they pledge the lowest quality non-cash collateral to their counterparts. This allows them to retain their internal liquidity and make use of their access to government debt for frm fnancing or fee generation purposes.

SLT: Is collateral management still

task - into a liquidity and balance sheet management function. It is now also a way for them to lower their operating costs and/or generate incremental revenue through a reduction in financing costs or the creation of additional stock loan fees.

SLT: Does this change the human resource required for collateral management and the sales process 4sight undertakes?

Palliser: To some degree – yes, but only in a positive sense.

In the past, the primary function of a collateral manager within an organization was to ensure the successful delivery or receipt of collateral to mitigate that day's counterparty exposure. This often resulted in the unnecessary use of cash and Govt bonds as collateral as they were easy to move on a same day basis in larger parcels than say corporate bonds and/or equities.

Collateral management systems now allow users to forecast their future collateral nee13(x g577te867(in)-67(lar/sn)-67(m[the.)-21(Fam))20(s)d-21(m)20(a)20(n)20(20(s)f20(e)20(m1(Fam))p(the.)-2t-21(m

One of the key components to risk mitigation in any securities lending programme is collateral. In managing a securities lending programme, both the collateral, including the haircut and marking to market the loans and collateral on a daily basis, as well as the combination of counterparty quality and collateral mix, are highly important. But what is the current market trend for collateral?

Notwithstanding the market turmoil and issues raised by the Lehman default and ongoing credit crisis, we have seen a continued recovery in loan volumes over the past three years. De-

The impact of these trends can be quite significant for beneficial owners. Balances can be

A huge liquidity strain and increased demand for collateral assets have made collateral manage-quality of all collateral in order to best match the available assets for each transaction.

This is commonly referred to as collateral optimisation. Extracting the maximum value from available assets has always been a worthy objective. However, banks have not always actively pursued it or used the assets given over for collateral purposes in the most effcient way. In some cases, the quality of collateral has been higher than required, or expensive forms of collateral were used when cheaper alternatives were available. Other times, long collateral has been left to lie dormant rather than be reinvested for trading purposes such as securities lending and repo or through rehypothecation to satisfy the frm's own collateral posting obligations. Financial institutions are now looking to address this situation.

The frst step to achieving a more optimised usage of collateral is to establish a global, holistic,

Such a process needs to be supported by architecture modelling and road-mapping tools which can facilitate rapid scenario planning, enabling the bank to evaluate alternative approaches and to quickly make informed decisions on the optimal and bespoke approach for the enterprise.

The 'Dynamic Process Modelling' (DPM™) approach

Business direction. The political challenges of optimising collateral management across diverse business units and geographies should not be underestimated. Whilst 'bottom-up' tactical initiatives undoubtedly contribute, banks will fail to fully seize their opportunities unless there is an agreed business vision and direction, such as what constitutes "optimisation". Direct engagement with senior stakeholders is essential to facilitate.

Operating model. A new business direction or vision is likely to impact the bank's operating model. New products and services, such as collateral transformation and client clearing are likely to be created, affecting customers, not least through renegotiating CSAs. Pricing models will be needed to enable collateral pooling or aggregation across business units. Some roles, responsibilities and objectives are likely to be affected and new organisational structures may be needed in addition to the new collateral trading function. End-to-end processes, activities and controls will undoubtedly change. An effective, fast process for modelling business impact and driving out a target operating model is essential.

Technology model. The target operating model must be supported by enhanced technology, beginning with a logical application architecture that supports the new business direction. Utilising pre-existing reference architectures covering derivatives, securities, futures and options etc, will dramatically reduce the time and cost of developing a target architecture for the enterprise. The new model will incorporate key functions such as eligibility initial and variation margin management, data management, collateral pricing, collateral transformation, re-hypothecation etc. Such a model is invaluable in providing a common language and fostering better understanding, collaboration and partnership between business and technology. An assessment of existing technologies against the logical model helps to identify duplicate components and gaps that must be flled by buying or building new components, with decisions captured in a physical application architecture.

Roadmap. The gap analysis enables identifca forward business benefts; minimising the impact on customers; avoiding the overload of internal functions; hitting an internal hurdle rate etc. Experience shows that once a PAR is submitted there is a need to create and analyse multiple investment / implementation scenarios until senior level buy-in and sponsorship is established. By ascribing each PBB with not only cost and benefts, but also a business disruption score, customer impact, resource/skill requirements and dependencies, it is possible to rapidly and accurately assemble multiple scenarios to address the concerns and goals of key stakeholders. This is often essential for aligning senior sponsorship for the programme to proceed.

Mobilisation and Execution. Following the planning and modelling phases of the project, and once stakeholder and budget approval is agreed, the mobilisation and execution phase can commence, leading to the development and implementation of the agreed solution.

Conclusion

Many banks already have some initiatives underway to address elements of collateral management and optimisation, notwithstanding the uncertainties of Dodd Frank and central clearing. However, there are still many differing strategies, with leading banks adopting greater aspirations to manage collateral on a global basis, across asset class, and across business silos, whilst some are struggling to defne what they mean by "optimisation". What is being optimised: risk? proft? Some view full optimisation as politically too diffcult, preferring to focus on single asset classes or primary geographies.

However, it is clear that a structured approach and a material investment in technology is essential - not just to reduce operating costs – but to exploit new opportunities. **SLT**

Karim Chabane, director of collateral management regional securities finance for Citi's Asia Pacific region spoke to SLT on the key drivers for the rise of interest in effective collateral management in Asia. He also gave us his take on the collateral management & securities lending market in Asia, and how it may evolve over the next 18 months.

SLT: Could you please outline the global economic landscape and its implications for Asia's collateral management & securities lending?

Karim Chabane: The current global economic landscape, post credit crisis, is leading to a new regulatory environment focusing on reducing exposures from OTC trading activity, and in APAC, we are seeing the confirmation of a trend

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