COLLATERAL MANAGEMENT FOR INSTITUTIONAL INVESTORS

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Exploring the evolving role of securities lending in a cleared environment, the operational infrastructure changes and practical challenges that institutional investors must overcome to deliver an optimum derivatives programme.

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Collaborative collateral solutions – the changing role of securities lending in a cleared environment

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Jessica McGhie: Justin if you could kick off with why securities lending is now so important for asset managers.

Justin Chapman: Historically security lenders played a support role to the broker community regarding their clearing activities but this is beginning to change. Market regulation, particularly around the European Market Infrastructure Regulation (EMIR) and the Dodd–Frank Act, means that asset managers are going to become much more heavily involved in the collateral management lending cycle.

This involvement may take many different forms, one of which could be in the lending of long, high-grade assets to other financial institutions for pledging to the clearing houses. There may also be specific strategies that certain managers have when their portfolios don't contain the required assets for a cleared environment; hence why they may be required to use lending services to support these strategies.

Another form of involvement could also be in the short-term access of liquidity for variation margin. Asset managers may need to use lending services to generate sufficient cash to ensure that they can make their variation margin calls. As pension funds move into the cleared environment the dynamics are going to significantly change as they will need access to more high-grade fixed income and cash. The key will be how they will access this collateral, which may mean we see asset managers starting to move more towards the demand side from a lending perspective.

Jessica: Arnaud, how are clearing models impacting on collateral management and the services provided?

Arnaud Fortier: We have seen increasing activities from the regulators to change the way collateral management has historically been conducted in order to reduce the systemic risk as well as the liquidity risk. Whilst there is no doubt that the insurance industry would welcome initiatives that attempt to reduce such risk, the challenges lies in how to implement effectively all of these new regulatory driven constraints; the operational and legal impacts should not be underestimated. From personal experience I can attest that there is increased demand on resources from across the firm in order to cope with these regulatory changes over a short timeframe.

Diving a bit deeper into your query, I would highlight that the role of the agent and the central counterparty clearing (CCP) house needs to be clarified better by the regulators, especially around concepts such as indemnity clauses. Also, continued uncertainty remains on the ability to impose the same terms to what insurance did in the bilateral world (haircuts, margining, eligible collateral, absence of breakout closes).

Matthew Chessum: We are seeing exactly the same thing. Everybody agrees that life for investment managers has become far more complex over the last 5 years.

We now have to start looking at a lot more with regards to over-the-counter (OTC) derivatives moving into this cleared environment. This becomes particularly difficult for long-only asset managers as we're used to making the most efficient investment decisions on each part of the portfolio.

We're not naturally institutions that have huge amounts of cash; our aim is to be invested in the best assets which deliver the best yield for our underlying clients.

If you look at the collateral needs for portfolios using derivatives, going forwards they will have to make some difficult strategic decisions as they move into a cleared environment. Amongst others, they will have to decide in which portfolios it would be better to hold onto cash to ensure that there are sufficient reserves to post as

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collateral at the CCP house. Holding non-invested cash obviously creates a drag on the performance of the fund.

Previously we would have been looking to put the cash to work the best way possible, whereas today, we are increasingly looking at the most strategic investment for the fund in terms of its collateral requirements. We are addressing the overall need for more high quality assets that can be used as collateral.

Anthony Kirby: We’re seeing new clearing models developing under both Dodd-Frank and EMIR. There’s not an exact symmetry as we cross the pond between the ‘agency’ model in the U.S. and Europe’s ‘principal’ model; this was thrown into sharp focus following the fall-out from the Lehman Brothers’ collapse in 2008. Subsequently there has been a huge focus by government officials, regulators and the industry on what is actually meant by clearing, recovery and resolution planning for cash CCP models versus derivatives.

Quite apart from the regulation, firms are addressing the cost of entering and participating in both the OTC-traded derivative processing and exchange-traded derivative processing. The cash drag argument is a very good one in fact and I’ve seen several firms operating a liability driven investing (LDI) strategy raising this issue.

Obviously they don’t want to hold onto excessive amounts of cash in order to comply with the new initial and variation margin requirements for CCPs. Firms who utilise total return swaps (TRS), LDI or alternative strategies (e.g. synthetic ETF providers) have indicated to us that whilst they are interested by the potential of EMIR, they are equally looking at the cost of complying with this regulation. Not just in terms of managing the complexities, but the costs of sourcing quality collateral on demand, conducting effective client management, with regards to reporting, and balance sheet optimisation. We will see a drive towards using more liquid forms of collateral, a flight towards quality collateral and regulators trying to identify and differentiate kinds of collateral usage. In addition there will be operational challenges too; processing coupon payments, for example, if fixed income securities are to be used as collateral.

Across the EU, the competent authorities are typically trying to identify where collateral is being used for speculation, where it is being used for hedging and where it is being used for investment. What will come to the fore is an increased focus on the types of collateral instruments and their fluidity, and how they’re being used in practice and for what purpose by the asset managers.

Justin: Anthony raises an excellent point as not all OTC derivatives are used for investment purposes, for example; a significant number are used by our clients for hedging currency risk. However, what is increasingly common is the growing concern expressed by pension funds on how to ensure the safety of their assets in the new cleared environment. Asset owners will have to deploy more collateral against more counterparties and transactions than ever before to meet the initial margin requirements and having transparency over these assets as they move through the clearing cycle will be key. The Lehman Brothers collapse certainly brought into focus the collateral challenges that the regulators hope will be overcome by the new global clearing member (GCM) and CCP model.

Our clients are starting to ask us whether we can maintain those assets through the whole value chain and not give them to someone who has the capability of re-hypothecating them. Once they realise this is possible they feel more comfortable in using their long asset books to generate return or support their ability to recall those assets if they decide to move the investment strategy in a different direction.

A slightly different clearing model therefore needs to develop away from the historical GCM/CCP model that’s presently supplying the brokers in the clearing environment. A lot of our asset owner clients are also starting to look at their hedging strategies as they can’t afford to lose visibility and transparency as their assets go through the value chain. Consequently there is a strong need to demonstrate asset safety along that chain.

Jessica: Beyond adding yield to static investment and the costs involved, what opportunities and challenges do these changes present?

Anthony: Following on from Justin, the issue is largely around what is the core focus when different houses view collateral differently? Some look at the title transfer aspect, others the pricing, valuation, documentation or transformation (e.g. type A into cash or type A into type B). Investors are looking for fluidity - better usage of these assets on demand; better time value if you like.

Taking a step back, one of the concerns that a lot of money managers voice to me is that if markets become more transparent, what will then happen to liquidity? Particularly in the bond markets, and OTC-traded interest rate swaps and credit default swap markets? If these operated more like flow markets over the next 3-5 years, what will that do to margins and therefore by extension what will that do to alpha?

If collateral becomes more fluid and slightly more standardised, firms will be able to make better use of their assets. Though as Justin said, we'll need to change the market infrastructure in order to generate fungible collateral at the point of use. There are also questions around the role of the asset servicers as central security depositories (CSDs) and certainly the move by certain global custodians into this space is going to trigger a debate as to whether more quality collateral can be subsequently released.

In a recent Risk Management for Asset Management survey that EY carried out in 2013, 48% of firms were worried about a future scarcity in the supply of quality collateral. However, if you have that quality collateral on demand, the question is more around what collateral you would give and whether your counterparty's systems were efficient enough to accept it. You could operate on a more cross-asset class basis or take advantage of cross-margin offsets - 26% of our respondents stated just that - but then, the dependency is system parity or else you realise the equivalent to one-hand clapping.

Some firms are more advanced in their preparations and will probably get there in 3 to 5 years' time. That said, developing algorithms which optimise the usage of such collateral across trading and clearing will certainly mean that the European marketplace has to catch up with North America where, post Dodd-Frank, institutional investors have adapted as a result of specifying the costs for entering a derivatives contract for both the trading and post-trade stage.

Arnaud: The benefits are clearly; greater transparency, reduced utilisation on both balance sheet and capital, netting benefits for larger participants, and in general achieving economies of scale on resources involved. The majority of the benefit though will be a function of how fast and who reaches a critical mass. For us as an insurer the key focus is on better understanding the mutualisation of the risk imposed by the new system. For instance, in some jurisdictions we need to be able to identify the collateral we are posting and therefore we are in a favour for an "asset tag model'' as opposed to outright pooling/co-mingling of assets. There might be some instances where the liquidity risk on a specific type of collateral would increase if we cannot identify/segregate properly by contributing entity.

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Other challenges are around reporting requirements and the determination of the best collateral at any point of time ('cheapest to deliver' versus 'optimal to deliver').

Jessica: How should organisations work collaboratively to ensure a smoother securities lending programme?

Matthew: Everybody agrees that discussions around collateral are going to become a lot more strategic with regards to different financial instruments. There will be better management and more money spent by asset managers in order to provide the necessary collateral services.

With better collateral management it will become easier for asset managers to carry on participating in certain markets, such as the derivative markets. The cost of doing so will lessen as managers get better at managing that collateral because, as has already been said, it's about optimisation and getting that right piece of collateral in the right place at the right time. Only then are you able to reduce the cost of subsequent transactions.

Our custodian will be well placed and we are likely to work very closely with them and I imagine it's the same across the board. In terms of the optimisation of collateral you look at where your holdings of that collateral might be, where it needs to be moved to and when, in order to satisfy the needs of a particular trade.

That's a very complicated business and not one that asset managers currently have in one system. Essentially it's like putting lots of pieces of a jigsaw together to ensure fluidity and collateral availability so that regardless of the cost, trading and collateralisation of certain instruments will be possible for asset managers. Asset managers are going to have to work very closely with their custodians to ensure that they get the information necessary to be able to make such decisions.

Justin: The changing dynamics around collateral also applies to asset owners who will require access to a larger fungible pool of assets for CCP use. Agent lenders are going to be key here; most global custodians are agent lenders and also have access to large pools of high-grade liquid assets that are eligible for collateral use at the central clearing houses. This will therefore make them obvious places for asset managers to access sufficient supply to meet the growing demands for eligible collateral from their clients.

Meeting these demands successfully will also depend on how well the asset pools are linked so that lending teams can draw on all sources of eligible collateral globally and on the speed of being able to move these assets to the right place. This could be through different types of collateral hubs and highways being made available in the securities settlement facility (SSF) spaces and the large central securities depositories (CSDs) under TARGET2-Securities (T2S). Alternatively this could be through accessing other sources of eligible assets, for example internal pension fund assets or tapping into unitised fund offerings. However, these assets would only be used for lending directly into the CCP and would not be via the GCM route thereby providing some additional transparency and safety.

One final critical success factor is making sure that the agent collateral manager, whether that happens to be a custodian or investment manager themselves, has a full view of the collateral inventory. This is really important from an optimisation perspective; it is vital you know what you're going to need, when you're going to need it, what assets you have available and what the cost or return is of giving up that asset to the overall portfolio.

Custodians are well placed to provide a consolidated view of a client's available collateral (held in custody with them as well as other custodians), to help them fully understand the obligations that need to be collateralised and the potential sources of eligible collateral across the industry to meet these requirements.

To conclude, these changing dynamics require greater collaboration between the owners of the assets, the managers of the assets, the custodians of the assets and the infrastructure groups. Ultimately the success of the new clearing model will depend on each of these groups working together to deliver collaborative collateral solutions.

Anthony: Collateral management, repo and securities borrowing and lending are congruent within many leading banks' delta one desks already. But equally, we see silo based approaches which means that there are different front office desks, different business lines and applications. This has resulted in a lack of transparency with regards to the total global pool of cash, securities and derivatives. If we look at the real world of manufacturers and supply chain management, they optimise two things to be very efficient: cash and inventory.

If we were to properly integrate collateral management solutions, firms could gain a single view of the credit risk, settlement and liquidity risk and pricing, which would actually equip investors with much more detailed information as to what is on hand, available at any particular time.

Collateral management is becoming a workflow and data business and so we are going to need market and reference data structures which are better standardised in order for us to get there.

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Matthew: Custodians are particularly well placed to help the smaller asset managers because essentially it will come down to critical mass. The smaller guys don't have the resources in place to manage it themselves and so fall back on their custodians or data providers to manage their collateral inventory and implement certain transfers so that the collateral is in the right place at the right time.

Jessica: As security lending programmes increasingly move into the front office what trends can investors expect and how should they adapt their operations?

Arnaud: Ensuring that the right information is accessible in a timely manner to main stakeholders is key— in other words opportunity costs must be efficiently priced at time of decision and be readily transparent across collateral types and lending structures. The traditional silo model of securities lending, repo, OTC derivatives need to be reviewed in a much more integrated manner in order to ensure the best use of collateral when talking about margining any product. Whilst we believe we have efficient processes in place in our group, the insurance industry in general needs to be more proactive in determining the use of optimal collateral given the increasing demands.

Justin: There's going to be a slightly different dynamic in terms of how the clearing flow works in the future; it will not only have to operate on a more real-time basis but with asset safety as a core element.

Most regulations, driven through to the cleared environment, have so far been focused on trying to reduce the systemic risk in the process itself. We need to make sure that the account structures in this environment are able to support the required level of asset safety and transparency not only back to organisations like Zurich but back to the end investor through the value chain.

There are a number of market infrastructure changes that will drive this forward. Demand for these changes isn't yet widespread among asset owners because larger pension funds don't need to start centrally clearing for another few years. However, they need to start thinking about this to ensure they can secure agreements with the relevant providers such as the GCMs and the clearing houses.

There is also a concentration of risks in the current model which prohibits certain assets from being used. As an organisation we are trying to partner with other players in the value chain to deliver the core infrastructure required to support the asset owner in the cleared environment. However, a new model needs to be developed that really works for the asset owner and asset manager rather than the broker community.

A number of our clients have approached us to discuss ideas for new account structures and models for the CCPs and regulators. Together we are aiming to demonstrate why these are safer routes for pension funds' assets and how they can move forward over the next three years; this is a slightly different dynamic to just buying an existing service in the market. Those conversations are underway and momentum is starting to build.

Anthony: I complete concur with Matthew's point that small to medium sized firms trying to integrate their systems are held back because more often than not, they have proprietary portfolio management systems. It's a very fragmented industry and trying to fund a business case to link these systems in the front office (and then gradually link them back through the middle office) is actually quite a difficult exercise. This is going to be one of the key dependencies moving forward.

A second point is around acceptable forms of collateral. In EY's Risk Management for Asset Management Survey 2013, we noted that 39% of firms had conducted studies into the acceptable forms of collateral whilst only 34% had run a beauty parade to actually kick the tyres of their brokers, so to speak, and make sure that the latter were equipped to carry out proper collateral transformation.

Asset managers are encouraged to not just look at the strength of their relationship with custodians and brokers or merely the strength of the balance sheet. Rather they should equally consider other factors such as concentration risk and product coverage, key person risks, errors and commissions from front to back office asset segregation. They should imagine conditions in a highly stressed market environment too; it's at those points that the stock borrowing, lending and repo flows can seize up.

I don't want to end up on too negative a note when I see opportunities for creating value, but it's suffice to say that if more firms kicked the tyres and explored those stressed market conditions, then investors would likely be better served by the end of this decade.

Matthew: There is a growing interconnectedness of activities across the financial spectrum. The growing need for collateral is one example of this. As a result there will be a natural displacement of activities from the back office to the front office as that activity's impact upon either costs or profit evolves. The structures supporting these activities will also evolve and will need to become more responsive to the trends surrounding those markets. For securities lending and collateral, the need to support new trading structures such as extendables and evergreens will become more prominent. Securities lending has evolved along a similar path from the days when it was used as just a cost reduction exercise. Asset managers are becoming somewhat less sceptical about securities lending as they are realising the benefits to other areas of their business.

Jessica: Thank you all for sharing your insights.

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Unlocking opportunity for asset owners in a centrally cleared environment

Anthony Stevens
Head of Product Solutions Group, Europe, Middle East and Africa, Northern Trust

Regulatory change in the derivatives market has been driven by a number of high-profile failures experienced by market participants with high levels of exposure to certain over-the-counter (OTC) derivative products. In response, governments and regulators have taken steps to better understand and reduce risks in the OTC market, resulting in the introduction of the Dodd-Frank Act in the United States and the European Market Infrastructure Regulation (EMIR) in Europe. Both regulations require increased transparency on the derivatives market, including the overall size of the market as well as details on exposures in place at any given time. They also demand that sufficient high-grade liquid securities and or cash be provided by both sides of the derivative trades to ensure that the trades are suitably collateralised. These regulations coupled with capital-related regulatory changes such as Basel III and The Capital Requirements Directive IV are leading to industry predictions of a potential collateral shortfall with securities lending seen as a possible conduit to providing the eligible assets to meet this. This may present additional revenue opportunities for many asset owners who hold large amounts of the necessary high-quality liquid assets. The challenge is how the industry provides a framework with the necessary transparency and asset safety that asset owners will demand to enable them to capitalise on this opportunity.

Mind the collateral gap

In early 2013 many industry experts were predicting a large collateral shortfall once the move to central clearing had completed with some studies reporting that as much as US$11[1] trillion of high-grade government assets would be required to fill the gap between currently available and required assets. These high-quality liquid assets would, amongst others, be required by financial institutions to ensure they could meet the Basel III rules covering capital funding requirements and by any owner of rate swaps who would be forced to move from a bilateral (with no or little initial margin required) to a cleared derivative environment under EMIR and Dodd-Frank (where initial margin is mandatory). It is these new requirements to hold or to at least have access to high-grade liquid assets which have driven the predictions for a collateral shortfall. What continues to be unclear is how this shortfall will be met in the industry.

Some institutions may be forced to increase their percentage of holdings in government bonds to ensure that they have sufficient eligible collateral to meet initial margin requirements or to improve their capital ratios by adding these high-quality assets to their organisation's balance sheet. They may also need to hold liquid cash to enable them to meet the variation margin of cleared derivative trades. However, holding these additional government bonds and cash within the fund may not naturally fit with these groups' investment strategies and act as a drag on overall performance. Industry experts therefore expect that some institutions who do not want to hold more high-quality liquid assets at the expense of the overall investment strategy, or cannot, due to current investment restrictions within the fund, will explore alternative options to gain exposure to these assets as and when they require them.

It is this expectation that has led to more common usage of the term 'collateral transformation' which essentially means an upgrade/downgrade trade (depending on which side of the transaction you are on). The transformation trade allows a holder of a lower quality asset such as an equity to use it as collateral against the loan of a higher quality and more liquid asset such as a government bond, with an appropriate haircut and associated fee. This transformation can be easily handled by the existing and firmly-established securities lending desks. It does however rely on having sufficient market participants who hold high-quality liquid assets to want to lend them and be prepared to accept a lower and less liquid asset as collateral in return. No matter the haircut and fee, some groups would just not entertain this type of trade and therefore, it is unlikely that the full collateral shortfall would be covered from the simple 'transformation' of assets.

However, this may not pose as much of a challenge as originally anticipated, as so far the widely predicted collateral shortfall has yet to become a reality. The most recent predictions for this shortfall are in the region of US$4 trillion[2] - still a significant figure, but considerably lower than the prediction of US$11 trillion 12 months ago and so easier to cover. This US$4 trillion

1. *Treasury Borrowing Advisory Committee, Quarterly Refunding Presentation, January 2013*
2. *Andrew Hauser, Head of the Sterling Markets Division, The Bank of England, featured in Financial News, 10 December 2013*

shortfall still offers those groups with long high-quality liquid asset positions an opportunity to increase the return from their portfolio by entering a lending programme.

With challenge comes opportunity

The institutions most likely to gain are those that hold large amounts of high-quality liquid assets and on whom the regulations like Basel III and EMIR will have little or no direct impact. This is particularly true for pension funds that generally hold these types of assets to maturity and could make additional revenue by lending them to the wider market. Some of these pension funds have previously participated in securities lending programmes and exited these following the financial market stress period in 2008, however, we are already seeing many of them re-examine their securities lending programmes.

A fresh approach

There is no doubt that securities lending provides the type of framework that will help locate and provide eligible collateral. Securities lenders will therefore continue to be a central part of the process as they facilitate the collateral supply as well as find new sources of eligible assets to support the collateral shortfall for use within the centrally cleared derivative market. They will also be able to continue to increase the return generated by lending high-quality liquid assets for those institutions willing to lend them. This will be particularly true when the assets' lending value increases due to the collateral shortfall and when the shortfall is big enough to force up the gross margin received from these types of lending trades.

However, some securities lending businesses are also beginning to think differently as they recognise they will need to execute trades in a way that will further protect the original asset owner (even more so than today) and provide transparency into the location of the assets at all points during the trade. Understanding where the loaned asset resides and having sight of it at all times will be essential, especially outside of the custody network and at the global clearing member or the central clearing house. Securities lenders will therefore need to be able to offer downsteam asset segregation all the way to, and including the central clearing house as part of the loan deal. They will also be required to recall and substitute assets intraday and ensure the process is 100% settlement failure free so they can guarantee access to their own highly liquid and high-quality assets when they need them most.

Securities lenders are also recognising the need to provide even further flexibility in their service provision to meet the differing appetite of asset owners for securities lending in a centrally cleared environment. For example, some securities lenders who also operate as custodian banks are exploring additional solutions such as client matching programmes where they will directly link clients holding excess eligible assets with other clients who need to borrow such eligible assets thereby avoiding the direct lending market.

Collaboration is key

Ultimately, securities lending desks, custody banks, global clearing members and central clearing houses need to start thinking past the standard loan agreement and current central clearing structure to how the lent assets will be used and how to ensure transparency over the assets at all times in the clearing cycle. Working closely together and creating a fully transparent and safe account structure will be critical to achieving this. This will provide a safe environment which will encourage more asset owners who own long eligible assets to participate in securities lending. This not only means that sufficient flow of eligible assets will be available when the anticipated shortfall in collateral arises, it also presents a revenue opportunity for groups such as pension funds who generally hold these high-quality assets to maturity and have previously shown less interest in securities lending – that's a win-win for all.

To learn more about Northern Trust's collateral and liquidity solutions contact:

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