The centralisation game

Experts discuss the progress that has been made in collateral optimisation

Should securities lenders and borrowers be making more effort to optimise their collateral?

Paul Wilson: The approach by lenders and borrowers will likely have different starting points and potentially different objectives, but will be built upon the same principles. Lenders are generally looking for the highest quality collateral, with decent haircuts and high degrees of liquidity so that it can be readily liquidated in a stress situation. Traditional lenders seldom re-use collateral from securities lending transactions. Thus, there tends to be a greater emphasis on collateral eligibility. On the other hand, borrowers view the provision of collateral as an expense and are therefore generally focused on minimising that cost and optimising assets.

A collateral management provider can help lenders and borrowers more efficiently and effectively manage their collateral requirements. This highly complex business requires sophisticated optimisation capabilities and a custody agnostic solution to be truly effective. J.P. Morgan has built its collateral management business based on these principles. Our global model allows an entity to incorporate a broad spectrum of assets to be used as collateral, alongside its obligations, across markets.

Gerard Denham: All securities lending participants should be looking to optimise their collateral in the current and future market conditions given the drive towards more effective use of capital and greater efficiency. Lenders need to analyse their existing collateral schedules, their collateral management systems and processes to determine if the collateral is being allocated and used in the most efficient and effective way.

Borrowers, in addition, to re-examining all internal systems and cost parameters need to analyse their downstream processes and service providers such as triparty agents, central counterparties (CCPs), account structures and vendor solutions in order to determine how their collateral usage is optimised to reduce costs and improve efficiency while satisfying their clients' requirements.

Martin Seagroatt: There is a measurable return-on-investment in pledging cheaper to deliver collateral and also in operational risk considerations. It is important to start with the basics—centralising inventory and exposures, electronically mapping legal agreements and assigning a cost to collateral assets. From there it is then possible to pledge cheapest to deliver collateral. This offers many of the easy to achieve benefits of optimisation, and from there a decision can be made on whether implementing more advanced algorithms is worth the investment in additional spend on IT and resources.

Bill Foley: Collateral optimisation can offer many benefits to all market participants and I'm sure that a number of borrowers and lenders consider that they are already making optimal use of collateral. That may be determining what collateral is acceptable to them and what, if anything, they are able to do with it, or ensuring that when they are posting collateral they do say in the most efficient way.

I think it is vital, though, to expand this thinking beyond just securities lending activity and capture the many other ways in which assets if all kinds can be utilised across an organisation in an optimal way. Taking a holistic view across an organisation's collateral and financing needs, understanding the value of all the inventory available to best meet those needs, and then appraising all the opportunities available to further utilise that inventory, can improve liquidity, reduce risk, reduce costs, generate revenue and help avoid the inefficiencies created by taking a more siloed approach.

Helen Nicol: Today's constantly changing regulatory environment creates demands on collateral across all business lines. As a result, organisations need to review their collateral strategies and look to maximise efficiencies, reduce costs and automate end-to-end processes.

Securities lending is widely recognised as playing a vital function in today's global capital markets by improving market efficiency and liquidity. By reducing fragmentation through the consolidation of inventory across all positions, improved access to liquidity sources and collateral pools can be achieved.

> ***There tends to be a greater emphasis on collateral eligibility***
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> **Paul Wilson**, managing director and global head of agent lending product and portfolio advisory, J.P. Morgan

Lenders need to realise the full potential of their portfolios, benefit from securities that are re-callable immediately, obtain close-to-market cash rates, maximise income, and maintain controls. Borrowers are striving to reduce the risk of failures and ensure securities coverage, efficiency and quality are maintained.

Good collateral is not necessarily always the cheapest—availability, opportunity cost, eligibility and sufficiency also need to be taken into account. Active portfolio management is therefore critical for optimisation.

Karl Wyborn: Most institutions would accept that they are nearer the beginning than the end of their ‘optimisation journey’. This said, it is axiomatic that the benefits of optimisation are governed by the law of diminishing returns. For any given portfolio, the maximum benefit will be constrained in somewhat by the size of the collateral pool and the range of acceptable collateral. The amount of effort that is ‘appropriate’ is therefore correlated to the variables. Simply being able to view all available collateral in one location and have the flexibility to switch between cash and securities where necessary would represent a good first step for many institutions.

Etienne Ravex: Securities lending plays a key role in financial markets by providing liquidity for trading and settlement as well as enabling firms to meet their collateralised trading activities requirements. In this respect, it is a business that is crucial to enable firms to get the required access, liquidity, and velocity in terms of high-quality liquid assets (HQLAs) and meeting regulatory ratios.

In addition, the securities lending and repo business lines are themselves under regulatory and reporting scrutiny, which could foster the growth of new execution models such as cleared repo. Developments such as these may help to solve a difficult equation, whereby market participants must cope with greater transparency and more stable balance sheets, while needing to meet different demands and expectations across the market.

From this perspective, we may consider that the question is not really if one should optimise, but rather assume that with the overall increase in market demand for collateral and HQLAs, buy- and sell-side firms need to adjust their business models. Optimisation for all participants is key to achieving greater market efficiency, liquidity and lower costs.

Michael Airey: Securities lenders and borrowers are already actively looking at ways to more efficiently manage and optimise their collateral pools. Some have made more advancements than others in the process, but the way forward is taking shape. Firms are evolving from utilising collateral to meet specific obligations (ie, financing or margin-related activity), to managing collateral by value, cost and balance sheet components, both pre- and post-trade.

To achieve this, firms can use various methods, but ideally it all starts with the aggregation of data into a centralised collateral hub, removing information silos as a result of fragmented architecture and product silos. This gives a more holistic view that highlights the quality and location of collateral in real-time, allowing firms to start reaping the benefits of allocating and optimising collateral more effectively.

> ***More efficient collateral usage is one area where there is a great deal of low hanging fruit in terms of cost reduction***
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> **Martin Seagroatt**, marketing director, 4sight Financial Software

What are the main drivers for this?

Foley: For most borrowers this has been their approach for many years and many will justifiably consider that they have done a good job of this so far. However, the need to manage collateral in a more efficient way has never been greater. As managing the usage, cost and level of return on balance sheet and capital becomes ever more important, it is no longer acceptable to use these vital business resources inefficiently. For lenders, the challenges created by new regulation and the ability to use assets varies depending on the type of participant. However, the buy side recognises that there are a number of ways to make use of the assets that create efficiencies. Securities lending is one of these and a very successful one at that, but I think we will see more buy-side participants looking to use their inventory in more diverse ways.

Kelly Mathieson: The primary driver is regulatory change, both in terms of derivatives and securities transactions. An increasingly broad range of transactions require collateralisation as a result of regulatory requirements, often applied in a more prescriptive way. New, or recently enhanced, capital requirements are really driving the focus on collateral now. This manifests itself in driving up cost and operating complexity for lenders and borrowers, creating increased demand for specialist collateral management solutions to help mitigate these issues.

Seagroatt: Optimisation is becoming more important as various regulatory changes start to drive collateral demand and promote disintermediation in the marketplace. Costs are increasing from these actions, reflected in growing spreads and restricting access to the market for some while creating profitable opportunities for others. More efficient collateral usage is one area where there is a great deal of low hanging fruit in terms of cost reduction.

Denham: The main drivers for increasing optimisation of collateral are many. They include regulatory directives such as Basel III and the US Dodd-Frank Act, the mandatory regulations enforcing over-the-counter (OTC) derivatives to be centrally cleared, minimum margin collateral requirements being set for non-cleared derivatives and securities finance transactions, CCP collateral guidelines, as well as a greater awareness of the risk profiles of all trading counterparties, trading venues and end users.

Wyborn: The purpose of optimisation is clearly to reduce expense

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> **Karl Wyborn**, managing director and global head of sales, CloudMargin

(cheapest to deliver) and reduce risk (replacement cost). While different institutions will be sensitive to those two metrics to varying degrees, now more than ever, all would acknowledge these dual goals. Historically, large banks have really been the only real champions of collateral optimisation. But as the use of collateral becomes more ubiquitous and the values of collateral grow the remainder of the industry is now far more sensitive to those opportunities that may be won or lost through collateral optimisation.

Nicol: The need for greater transparency in terms of eligibility, availability and allocation, combined with the desire for an improved understanding of the inherent risks involved and the scarcity of high grade collateral due to global market initiatives and regulatory requirements, means that organisations are seeking ways to access cross-asset, cross-business line optimisation.

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Helen Nicol, director, Colline collateral, clearing and optimisation, Lombard Risk

Optimisation can assist organisations in accessing sources of collateral that can enable them to make well-informed decisions with regard to availability, collateral usage and cost. The optimisation platforms available to the marketplace provide multiple algorithms that can take into account differing haircuts, eligibility requirements, volumes, collateral costs, liquidity constraints and client strategies and provide scenario analysis according to pre-defined rules for best asset selection.

Airey: Collectively, the key driver has been the multiple challenges imposed by the enormous financial regulatory overhaul that has evolved post-crisis. Through various regulations, a heightened awareness of a firm's sources, its use of collateral and any adjacent activities has emerged.

Regulators now want to know how much collateral a firm holds at any point, where it's located, whether or not it's segregated, how it reacts under stressed scenarios, and more, with the intent of promoting future stability in financial markets. Regulatory challenges continue as financial firms across the sell and buy sides struggle in the face of timelines that are rapidly approaching.

Could a more centralised optimisation team lead to better efficiency throughout?

Airey: There will always be debate among financial firms about the best way to structure a firm-wide collateral optimisation effort. Historically, most firms have practiced collateral optimisation within the specific business line, largely due to the product and information silos that existed. As firms evolve collateral practices, they begin adopting a hybrid style, implementing a coordinated effort across business lines to more effectively manage collateral. Ideally, this leads to a more holistic approach that spans business lines and geographies in sourcing and allocating the optimal collateral firm-wide.

However, questions continually arise as to where this effort should reside. Is it best suited as a part of a firm's treasury unit given the links to liquidity and regulatory reporting? Should it be a part of the funding desks' efforts given the market intelligence needed with respect to collateral financing rates? Or should it be carved out as a standalone business unit with a joint form of governance?

In reality, firms will choose the model that best suits their organisational structure and understand that it will require efforts across multiple parts of the organisation to collaborate and gain efficiencies in achieving collateral optimisation. Transformation of a firm's collateral structure, systems, processes and people will be at the forefront of its decision process, mitigating risk and obtaining compliance with forthcoming regulatory demands.

Nicol: Most certainly and here at Lombard Risk, we are seeing a number of clients move towards this structure with specific focus on the front office driving the programme forward.

Collateral is now more expensive and less readily available. Within a collateral programme, there is an increasing pressure to make the best use of what collateral is available, calculate the cost and maximise the cost savings. Credit risk and control teams are operating at heightened levels of awareness, and treasury and front-office functions are becoming increasingly involved or are primarily responsible for collateral inventory and selection of assets to be posted as margin.

Therefore, the need for centralisation of these functions becomes increasingly important in order to provide a consolidated view so that well-informed decisions across business lines can be executed.

Denham: There are many banks and financial institutions that have implemented a centralised function to manage the increased demand for collateral optimisation and many more are undergoing the analysis required to implement such strategies. This involves combining many different business lines, such as treasury, repo, securities lending, prime brokerage and global custody, as well as existing collateral management, network management and IT units.

Many have implemented a centralised function to manage the increased demand for optimisation

Gerard Denham, senior vice president, clients and markets, securities lending, Eurex Clearing

In addition, these financial institutions also need to be aware and make use of external services that already provide tailored solutions. Deutsche Börse, for instance, already has established services in place to meet the demands of the modern day collateral manager, through Clearstream, Eurex Repo and Eurex Clearing. These enable the optimisation of all collateral across the cash markets, listed and OTC derivatives, and repo and securities lending transactions, all supported by robust and superior risk and collateral management systems that are flexible for multiple client types and trading activities.

Wilson: A centralised team could work. However, it could be hard to create or staff such a team as, in our opinion, there tends to be a shortage of collateral expertise in the market. Using a collateral agent provides lenders and borrowers access to a single source that combines expertise with a scalable and efficient solution, while reducing implementation timeframes, expense and the need for ongoing technology investment.

Using a third-party collateral agent allows lenders and borrowers to outsource complex and potentially expensive functions such as optimisation, eligibility management and settlements whilst retaining oversight so they can dedicate more resources to other important business matters and elements of risk management.

Seagroatt: Consolidation of previously siloed desks allows for a more holistic approach to pledging collateral.

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> **Etienne Ravex**, collateral management product manager, Murex

This then facilitates the matching of firm-wide views on exposures to available collateral flows.

Single system technology solutions help to support this centralised function by reducing operational burdens and risks. They also provide a backbone of functionality from which additional benefits such as process automation and the deployment of more advanced optimisation algorithms can be achieved.

Wyborn: It's hard to argue that, where optimisation is concerned, decentralisation is preferable. For many, one of the first steps towards optimisation is the consolidation of your collateral in a single location. That 'location' may very well be a single platform that takes feeds from multiple custodians, trading desks and so on. Clearly, it is nonsensical to suggest therefore a decentralised optimisation team is best aligned to the operation of this single location.

Foley: Most organisations operate a central treasury function and can see the benefits of this. To be trying to balance your books at the end of the day, unaware of what someone elsewhere in the organisation is doing with your cash, would be unacceptable. I think the same is true of centrally managing your inventory and again many will already be doing so.

In order to take a holistic view of all assets, all draws on those assets and all potential opportunities to utilise those assets, then yes, centralisation and the ability to see all the moving parts is important, otherwise arriving at the optimal scenario would be very difficult.

> ***Centralisation and the ability to see all the moving parts is important***
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> **Bill Foley**, director, Foley-O'Neill

Ravex: While there is a definite trend towards centralisation, and in some cases organisations even evolving to create central or global desks, we should not assume there is a one-size-fits-all model. Rather, we need to understand the underlying reasons behind the change.

Firms are looking at solving four different problems when optimising balance sheet resources: minimising balance sheet usage, ensuring efficient usage of available capital, investing excess liquidity and securing liquidity ratios.

At a minimum, to solve these problems, firms require access to timely centralised data. To enable better management of a firm's inventory of assets, all stakeholders require accurate and settlement-aware information.

The next step is to push the model further and create a servicing unit that would consolidate and match internal owner and borrower requirements. By acting as as the firm's internal broker, such a unit would be in a favourable position to manage collateral supply and demand at the enterprise level. It would be able to identify idle resources, price and allocate collateral usage, and ultimately deliver indicators for enhanced inventory management. A clear and transparent pricing mechanism is required to make this model successful.

How big a part does technology play in optimising collateral?

Mathieson: The importance of technology cannot be overstated. Over the past five years, we've seen optimisation move from managing collateral using highly manual processes (such as spreadsheets), to focusing on managing collateral via more comprehensive eligibility criteria, to a widening need for tools that could incorporate multiple considerations—such as the eligibility of different asset classes and the need to meet collateral obligations across various counterparty types, clearing brokers and custodians.

As previously noted, given the focus on capital efficiency, lenders and borrowers increasingly seek to employ very sophisticated algorithms to manage their collateral against their own capital needs—beyond simply meeting their contractual obligations to their counterparty. This creates an increasingly important role for technology in the collateral optimisation field.

Our solutions continue to evolve accordingly. For example, J.P. Morgan is finalising a user-defined allocation tool that will allow our clients to assess a proposed collateral allocation, fine tune it in-house to meet their own criteria, and then return it to us for retesting against eligibility requirements. This gives the client substantial flexibility in how they deploy their collateral. Finally, the importance of technology in supporting a client's risk management programme should not be overlooked. As an industry, we need to make sure that risk management remains a primary focus.

Airey: The task to deliver a more efficient, cost-effective collateral optimisation platform remains a daunting one for financial firms. As a result, a significant amount of time, effort and money has already been invested from a technology standpoint across the financial community. Examples of this are as follows:

- Central Securities depositories that have been tasked to streamline efforts in the global mobilisation of collateral;
- Custodians that continually seek out ways to more effectively transform collateral holdings for their clients;
- Solution providers that look to mutualise associated costs while remaining compliant with regulatory change in servicing their clients; and

- In-house technology teams tasked to link legacy platforms in a real-time environment.

Keeping up with the challenges of effective collateral management and optimisation has only intensified as regulatory timelines draw near and it will be the advancements in technology that drives change in the way firms look at the sources, uses and needs of their collateral requirements in the future.

Seagroatt: While re-organising people and processes is a key part of running a more efficient collateral management program, technology is also a fundamental building block in optimising.

Due to the increase in margin calls and heavier operational burden now involved in managing collateral, automation is increasingly vital. While experienced collateral managers may know their books and available collateral, a well-integrated and centralised system allows them to focus on tactical and strategic issues rather than wading through the operational burden on a daily basis. Exactly what part technology should play depends greatly on the individual firm. For some, simply providing centralised inventory and exposures provides the key information to allow collateral managers to make the necessary decisions accurately but also with some degree of flexibility.

For others, the sheer volume of exposures and collateral movements requires a heavier reliance on more advanced functionality. This ensures the collateral manager can easily sort and allocate inventory and keeps the time spent per exposure to a minimum.

Wyborn: Optimising collateral is, for all but the smallest/simplest collateral pools, all about technology. This does, however, talk to the diminishing returns argument. For many institutions, a centralised view of collateral along with the flexibility to choose one asset over another would achieve a significant percentage of the available benefit.

To develop beyond this position by, for example, employing algorithms to manage optimisation will be beyond the needs of many institutions.

Nicol: Technology has always played a significant role in bringing new products to market. Over the years, as financial services firms have expanded, most have either bought or built in-house systems to meet each department's unique requirements as they arise. In this ever-evolving market, access to accurate, real-time data—particularly linked to requirements, pricing and disputes—is essential for lenders. Access to cross-product data enables differing optimisation criteria to be utilised for varying algorithmic optimisation scenarios therefore enabling front-office trading decisions to be achieved on a real-time basis.

Therefore, platforms that provide flexibility for differing strategies and offer opportunities to leverage process synergies can create a substantial competitive advantage and provide granularity and agility within today's complex market.

Denham: The greater use and advancement of technology solutions has been rapid in recent years. Many institutions, including CCPs such as Eurex Clearing, are now able to provide users within multiple business units and IT operating systems a more flexible and customised way than ever before, whether it be enhanced front-ends, fully integrated systems on a real-time basis, advanced margin simulators or more flexible reporting, the CCP's role as an efficient and more effective provider of solutions towards capital and collateral cost reduction is an opportunity that all financial institutions need to consider as part of any collateral optimisation programme.

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> **Kelly Mathieson**, managing director and global head of collateral management, J.P. Morgan

Ravex: Technology has a fundamental but complex part to play in optimising collateral. Firstly, technology should be a leverage for change. We can observe an evolution of the target operating model of the securities finance function towards a more centralised and service-oriented setup. Besides these challenges, firms will be able to rely on technology to roll these new models, which most often imply important IT system changes. Secondly, technology is the enabler to centralise assets and make resources available for optimisation. The first challenge is to break traditional silos and create a global book of records that is available in real-time. Once available, additional and new inventory management functionalities such as optimiser engines need to build. Component and service-oriented architecture are best placed to answer these challenges.

Firms do not need to physically centralise the data (positions, static or market data), but build virtual inventory accessing classified and mapped data. The challenge is actually not to have a data warehouse but to build an integrating solution, enabling a reduction of the footprint within the firm while providing unique and centralised access to data. Finally, optimisation as an analytical service enables firms to determine cheapest-to-deliver assets, although there there is a requirement for strong data access and computational resources to determine the target assets, along with efficient and reliable operational capabilities to process the outcome.

Foley: Technology has a big part to play in collateral optimisation as it does in all aspects of financial markets and clearly, the right technology can help an organisation to better manage its assets and asset deployment. However, it is important to understand exactly what your requirements are, what benefits a system can bring and whether they are the right platform for you. If you are looking at one aspect of your business, such as collateralising your lending activity, then establishing the optimal way to do this in line with your counterparties' collateral parameters and your available assets is easily managed by most securities lending platforms, and also by triparty collateral managers. If you are looking at a more varied range of factors across a number of products and routes to market, then your need for technology is even greater as you are asking for something quite different of your technology provider. **SLT**

> *It will be the advancements in technology that drives change in the future*
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> **Michael Airey**, vice president, strategic solutions, capital markets, Broadridge