GLOBAL INVESTOR GROUP | FOW | ISF

Special Report • 2021

Collateral in 2021

Lead sponsor

J.P.Morgan

In association with

ACADIASOFT

EQUILEND

OCC THE FOUNDATION FOR SECURE MARKETS

pirum

SMARTSTREAM

transcend

www.globalinvestorgroup.com

Contents

GLOBAL INVESTOR GROUP | FOW | ISF

General manager Will Browne
Tel: +44 (0) 20 7779 8309
will.browne@globalinvestorgroup.com

Managing editor Luke Jeffs
Tel: +44 (0) 20 7779 8728
luke.jeffs@globalinvestorgroup.com

Special reports editor
Tel: +44 (0) 207 779 8983
hugo.cox@globalinvestorgroup.com

Securities finance editor Oliver Wade
Tel: +44 (0) 207 779 8430
oliver.wade@globalinvestorgroup.com

Senior reporter Perle Battistella
Tel: +44 (0) 207 779 8028
perle.battistella@globalinvestorgroup.com

Design and production Antony Parselle
aparselledesign@me.com

Divisional director Jeff Davis

Chairman Leslie Van de Walle

Chief executive Andrew Rashbass

Directors Jan Babiak, Colin Day,
Imogen Joss, Wendy Pallot,
Tim Pennington, Lorna Tilbian

SUBSCRIPTIONS
UK hotline (UK/ROW)
Tel: +44 (0)20 7779 8999
US hotline (Americas)
Tel: +1 212 224 3570
hotline@globalinvestorgroup.com

RENEWALS
Tel: +44 (0)20 7779 8938
renewals@globalinvestorgroup.com

CUSTOMER SERVICES
Tel: +44 (0)20 7779 8610
customerservices@globalinvestorgroup.com

GLOBAL INVESTOR
8 Bouverie Street, London, EC4Y 8AX, UK

globalinvestorgroup.com

Global Investor (USPS No 001-182) is a full service business website and e-news facility with supplementary printed magazines, published by Euromoney Institutional Investor PLC.

ISSN 0951-3604

Published in January 2021

Foreword

By **Ben Challice,** global head of trading services at J.P. Morgan.

Welcome.

It's hard to overstate how much collateral management has changed over the past several years, not least in 2020, something this special edition of Global Investor will explore.

From primarily a back-office, operational function, collateral management is increasingly a critical front-office role, playing an important part in investment decisions. Managing the sources and uses of inventory efficiently contributes directly to the bottom line. Additionally, the interplay between collateral management and securities lending is driving a trend to a holistic view of financing for buy-side firms, helping institutions effectively manage their financial resources and contribute to investment returns.

Innovation has continued through technology and automation, creating new efficiencies, and ongoing regulatory change means that time-tested structures, such as triparty, are being used in new and innovative ways. Whilst we are certainly proud to be at the forefront of that innovation, we are not acting alone. The industry, buy- and sell-side institutions, clearinghouses, utilities, vendors and collateral agents have to increasingly work together to create solutions that are indeed larger than the sum of their parts.

Convergence is driving tremendous opportunity, whether that be through technology, data and analytics or mobilising assets more effectively. Greater standardisation, sophisticated analytics and deeper insight will benefit the entire ecosystem and its members, by improving the ability of institutions to utilise their inventory and enhance returns.

Our journey to create a more efficient market continues.

Data analytics and digitisation: the business case

Continuing focus on cost and the speed of adoption in 2020 are placing data and digitisation at the core of progress in collateral management.

The Covid-triggered volatility of early 2020 spurred a sudden demand for rich, timely data on the part of market participants even as the spike in transaction volumes and the exacting demand of home working made it harder for providers supporting collateral management to supply it.

Large-scale market volatility in February and March saw large swings in and out of the money, requiring huge collateral calls. For a two-week period as transactions spiked, so did disputes, drawing hard on banks' operational resources. Days after they had relocated from the office to working from home, teams went into overdrive, with longer hours keeping all hands to the pump, ensuring clients had everything they needed as early as possible.

"Clients needed information from us as early as possible to maximise the time they had in the market to make use of it," recalls Paul Pirie, executive director, collateral services product, at J.P. Morgan.

"With swings of this scale in and out of the money, and the huge cash balances required, a key challenge to the market was how liquidity would be squeezed and whether some clients would be under-collateralised. But day-after-day, clients continued to meet their margin calls at the close," he says.

At MN, a Dutch pension fund group with €175m of AUM, the main impact of the volatility was in non-cleared business, where there was a significant spike in calls (MN's funds enjoy exemptions from the requirement to clear derivatives in most cases). This was not in terms of frequency – the large positions employed by the funds mean that they typically faced daily margin calls before the crisis – but rather the size of calls, which increased by orders of magnitude.

"We saw exposures higher for almost every agreement, increasing the call amount dramatically. If for example the total amount for one fund would have been €5m before the crisis, this could have moved to €15m or €20m in some cases," says Dongyi Yin, senior collateral and securities lending manager at MN.

The experience of MN reflected a broader industry trend. Average size of collateral calls jumped from $3.4m in February to $8.62m in March according to AcadiaSoft Analytics. "Among larger firms the

LARGE-SCALE MARKET VOLATILITY IN FEBRUARY AND MARCH 2020 SAW LARGE SWINGS IN AND OUT OF THE MONEY, REQUIRING HUGE COLLATERAL CALLS.

average increased from $12m to more than $60m," says John Pucciarelli, head of industry and regulatory strategy at AcadiaSoft.

Another volatility lesson

At client firms, the period of volatility – like those that have gone before and doubtless those that follow – emphasised long established arguments for digitisation with new urgency.

"The reality is that many of the banks still may have fairly manual processes to pledge collateral to OCC," says Matt Wolfe, executive director of securities lending at OCC (Options Clearing Corporation). "The environment [of early 2020] emphasised the problems with this."

As an example, Wolfe points to the "four-eyed checks" procedures still prevalent at some banks, where data entries must be checked by a co-worker "over the shoulder" of a colleague. "This may be harder to coordinate when one person is working remotely in Jersey City and the other is in Long Island."

Despite the reassurance of widespread vaccine roll outs this year, the uncertainties of Covid could yet increase the strain on back offices once more.

"There could be a lot more volatility in the coming months and years. If trading volumes continue to be high, with fluctuating asset prices, the knock on will be considerably more margin calls, more disputes and more collateral fails, all of which need to be investigated," says Trevor Negus, senior product manager, TLM collateral management at SmartStream Technologies.

"Until the vaccines are rolled out fully, most staff at financial firms will continue to work from home in the majority of countries. Against this backdrop the benefits of automation will only increase," he adds.

E-contracts: an easy win

A distributed workforce and movement restrictions enforced progress in certain areas of digitisation and analytics – such as e-signatures or online eligibility – demonstrating what it is possible to achieve in a short time. The automation of collateral contracts was one process that showed how the relatively light-touch application of technology could give a significant gain in efficiency.

There may be market standards for collateral agreements but every contract requires an additional process of customisation so both parties are happy, a lengthy process of shuttling amended PDFs back and forth between legal departments. Simplifying the process with a single automatic programme like DocuSign – that logs mark-ups, with a full audit trail before providing electronic signature and verification – and the process becomes much simpler and quicker.

"Once signed and digitised, such "smart" contracts could be amended in real time enabling clients to adapt the terms to a change in market conditions or a shift in risk appetite, by adjusting the collateral eligibility profile for example," says Pirie.

Besides speeding up the process, this cuts out the manual error inherent in a process of exhaustive form filling on documents that are often 15 or more pages long. "Especially where there is an element of interpretation – where a lender writes something rather than just checking a predefined box and a person has to interpret what that means – mistakes can occur. With e-versions mistakes are vastly reduced," says Pirie.

Cost focus

As companies become more sophisticated about evaluating the costs in time and inefficiency spent in the back office, meanwhile, the case for integrated technology solutions is becoming stronger.

"Companies may be calculating costs by measuring the impact on the front end, less the annual cost to host. But then you find your back office spending a lot of time and cost in filling the gaps. One large agency lender we spoke to estimated the cost ran to $1 million," says Grant Davies, head of sales EMEA at EquiLend.

"Regulatory reporting products allow us to now manage all client activity: all the data from pre-trade, trading and post-trade activity is captured," he says, referencing the company's EquiLend SFTR solution. "If you have the same system in the front and back end, there is no risk of losing information in the process of connecting."

ESG

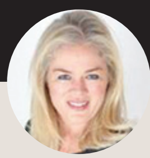
The upheaval caused by Covid has done little to loosen the focus of investors on ESG and the question of how best to implement – and pay for – ESG-approved collateral sets is taking on a growing urgency.

"Certainly today with the eligibility process online and better tools available, you can quickly make changes. But the current reliance on collateral schedules isn't a long-term solution. If you have hundreds of exclusions on a schedule from the borrower's point of view it can be very hard to price the trades," says Marieken Pronk, executive director, platform sales for UK banks and infrastructures at J.P. Morgan. "For an agent lender to manage all the exclusions and schedules, it becomes very operationally heavy."

MUCH LIKE RATING AGENCIES IN THEIR EARLY DAYS, ESG MEASURING TOOLS AND CLASSIFICATIONS ARE STILL DIVERSE AND DISPARATE.

SEGREGATED INITIAL MARGIN

An integrated approach to managing initial margin requirements under UMR



By **Ed Corral,** global head of collateral strategy, and **Katie Emerson,** head of agency lending and collateral management sales, EMEA, J.P. Morgan.

In September 2021, the fifth phase for UMR for segregated initial margins will come into effect for many of the remaining market participants, where the portfolio aggregate average notional amount (AANA) is at or above $50bn USD equivalent. Phase 6 (September 2022) will capture firms with AANA at or above $8bn USD equivalent. At those points, the impacted firms trading uncleared OTC derivatives will need to comply with the mandatory exchange of IM with their respective trade counterparties.

During the multi-year phase-in of UMR, the need to post IM has driven custodians and collateral agents to evolve their business models to meet clients' needs and adapt to new regulations. In the later phases, the need to manage collateral across a variety of activities – securities lending, financing, and cleared and bilateral OTC trading – has become increasingly critical. This has created demand for a more holistic approach to collateral management to efficiently meet their obligations. Given their focus on optimisation and liquidity, buy-side clients continue to look to their custodians and third-party securities financing agents for integrated collateral management and transformation solutions.

J.P. Morgan's end-to-end platform enables clients to cover their financing and segregated IM obligations via a flexible securities lending program that operates in concert with collateral agency solutions. A collateral optimisation engine applied at the portfolio level can manage and satisfy diverse client collateral obligations across different locations, helping clients select the 'cheapest to deliver' assets based not only on the pending collateral requirement, but also the potential value in the lending opportunity. Our platform can ensure that these collateral placements minimise impact to portfolio management activities while providing uninterrupted asset servicing. This will allow institutions impacted by UMR, and our other clients, to efficiently optimise the use of their assets, using the most valuable to generate revenue through securities lending while simultaneously fulfilling their collateral obligations. ■

The industry is looking to standards setters for a lead. Much like rating agencies in their early days, their measuring tools and classifications are still diverse and disparate.

"The ideal is ESG testing criteria from robust data sources which can be treated like any other piece of static data relating to the eligibility of a security, albeit a particularly important piece," says Matt Mitchell, vice president, collateral services product management at J.P. Morgan.

Nor has Covid interrupted efforts by leading firms into deepening client collateral pools. One example is releasing trapped assets, where assets include ETFs, master limited partnerships and restricted shares are restricted or not held at traditional depositories, making them hard to unlock for triparty financing.

Ed Corral, global head of collateral strategy at J.P. Morgan says that triparty providers must negotiate legal, operational and technology obstacles to release their assets. "By untrapping these assets, borrowers gain access to previously unavailable assets, ideally at a lower financing rate in triparty than would be assigned in their own firm's funding systems; lenders gain with greater diversification and, potentially, a better price."

"THERE IS CONSIDERABLE SCOPE FOR THE APPLICATION OF AI TO THE AUTOMATION OF COLLATERAL MANAGEMENT. LEARNING HOW DECISIONS ARE MADE: HOW YOU DETERMINE WHICH CALLS CAN BE SENT AND WHICH NEED TO BE INVESTIGATED, WHY CALLS SHOULD BE HELD UP AND WHAT ERRORS TO LOOK FOR"

- Trevor Negus, senior product manager, TLM collateral management at SmartStream Technologies.

AI, the next frontier

Covid has spurred curiosity in where the next frontier of analytics may fall. Here AI and machine learning could offer exciting opportunities.

"There is considerable scope for their application to the automation of collateral management. Learning how decisions are made: how you determine which calls can be sent and which need to be investigated, why calls should be held up and what errors to look for. And, of course, this differs from firm to firm and region to region," says Negus at SmartStream.

He says that firms like his are currently focussing attention on labour intensive activities particularly around reconciliation. "There are lots of data to be mined in the margin call, interest and settlement processes with considerable potential for machines to do jobs that people do currently," he says.

Focus for the future

Whatever breakthroughs AI might offer up in the years to come – and whatever disruptions may yet emerge from Covid in 2021 – data and digitisation will

continue to be at the core of progress in collateral management.

"Increasingly they now form the foundation to effective collateral optimisation," says Phil Morgan, CEO of Pirum. True, the errors and exceptions caused by incorrect data or a lack of digitisation in collateral management rarely create a cost. "But this is in direct contrast to their impact on optimisation. On a daily basis, gaps in data and digitisation lead to a slow leakage of P&L."

"Gone are the days of it being acceptable that a financial firm finds out the day after that it has, for example, breached a limit or received an ineligible asset as collateral," concludes Rob Frost, global head of product at Pirum. Firms now demand real-time data, visibility and control mechanisms across their whole book. Achieving this requires data to be fully digitised and a technology solution that is agile to adapt to the changing needs of a firm quickly and reliably. ■

ANALYTICS

Enabling capital and collateral savings

Matthew Wolfe, executive director for securities finance at OCC, explains how current analytics help provide members with unique risk modeling that translates into collateral and capital savings.

OCC's cleared stock loan program was launched over 25 years ago to recognise the risk offsets between equity and index options, and stock loan positions, thus requiring less collateral from clearing members. Since then, additional incentives have been discovered, such as the substitution of a loan's counterparty to a AA+ rated CCP, and more recently the reduced capital requirements that banks get from OCC's 2% risk weighting.

The reduced Risk Weighted Assets (RWA) of having an exposure with OCC versus a bilateral exposure with another bank or broker dealer provides significant savings from a regulatory capital perspective. For participants clearing equity and index options, there are also collateral savings that can be unlocked through clearing stock loan and borrows.

OCC's innovative STANS risk methodology provides members a unique evaluation of their portfolio's risk, which is typically driven by equities. OCC's STANS risk system assesses the combined risk of options positions, stock loans, and equity collateral on deposit. This provides a more accurate view of offsets and can deliver savings to clearing members vs. traditional CCP risk models, particularly if the stock loan and/or collateral positions reduce the risk of the option positions. When looking at a borrow position, the system treats it as a short position in the borrowed security. As the price declines the borrower receives a credit, which can offset a upside risk in derivative on the same or a correlated security. The opposite is true for loan positions that are considered as long positions. When the price increases, the lender receives a credit, which can offset downside risk in correlated options. The amount of the risk offset varies account by account and day by day, but it can have a meaningful impact upon a member's collateral requirement at OCC.

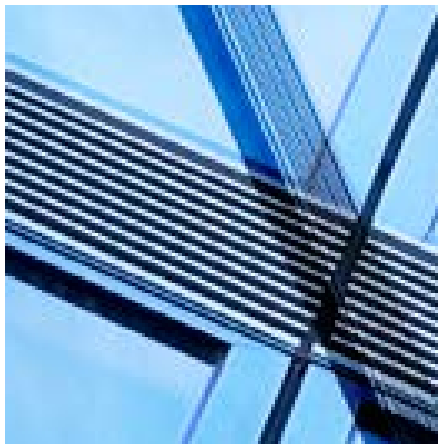
Clearing members and their clients can realise significant collateral and capital savings from OCC's unique risk-modelling by incorporating risk-offsets into their stock loan. Many clearing members are investing in their systems and processes as potential ways to reduce their OCC collateral requirements and improve their operational efficiency.

OCC is very appreciative of the support and engagement from our clearing members and the securities lending industry and we look forward to continued collaboration. We encourage members and new users to explore potential capital and collateral efficiencies that may be gained from the stock loan program. ■

We clear the path

OCC℠ has the largest centrally cleared stock loan offering in the world with approximately $80 billion in cleared loan balances. Over the last 25 years, OCC has built an innovative and unique U.S. program for securities lending transactions where OCC steps in as the counterparty (with a two percent risk weight) and guarantees the return of stock or collateral. We continue to enhance and expand access to our stock loan program in order to offer clearing solutions and capital efficiencies for our members and the entire securities finance industry.

As the world's largest equity derivatives clearinghouse, OCC is committed to providing market participants with high quality and efficient clearance, settlement and risk management services. As a systemically important financial market utility, we work to enhance our resiliency in order to reduce systemic risk, increase market transparency, and provide capital and collateral efficiencies for the users of the U.S. capital markets.



OCC

THE FOUNDATION FOR SECURE MARKETS℠

Collateral convergence

As the events of 2020 underline their benefits, firm-wide convergence initiatives, supported by a clear management message, are growing in appeal.

Participants have long recognised the theoretical benefits of the 'single collateralised business' promised by collateral convergence. Collapsing collateral management to a single agnostic service, operating across business lines and has the potential to transform efficiency, reporting, eligibility, visibility and cost.

Netherlands-based investment manager NN Investment Partners moved to a centralised team for collateral optimisation five years ago. "We saw the need for a centralised team to optimise the assets which were being used for repo, securities lending and initial margin," says Xavier Bouthors, senior portfolio manager in the Investment Solutions team at NN Investment Partners. "And we saw that we needed a collateral optimisation platform to work in the same centralised ways, providing an overview of where collateral is being used, for what purpose and with whom."

2020's Covid-triggered volatility underlined the benefits that companies were already harvesting from improved collateral convergence to meet regulatory requirements. "The importance of convergence across pre- and post-trade is so clear if you look at regulation like SFTR and CSDR. The requirements and impacts are agnostic of pre- and post-trade silos, meaning it's critical for front and back office to work together," says Mike Reece, head of platform sales, securities services, banks and trading services, EMEA and Asia Pacific at J.P. Morgan.

Convergence initiatives have already thrown up handy ancillary benefits, says Rob Frost, global head of product at Pirum. “Where there is a business case to centralise activity, an analysis across silos often highlights areas where a financial institution may leverage an existing, established process to improve efficiency elsewhere in its post-trade infrastructure.”

In the last 12 months, Reece has seen a much-increased responsiveness from the front office at client firms. “Senior front office managers realise the importance of understanding post trade infrastructure and connectivity as they consider new digital solutions, as well as increasingly accurate cost allocations at a business, desk and even trade level,” he says.

One example of a buy side firm that has placed a high emphasis on convergence in recent years is MN. The Dutch pension fund group with €175m of AUM is working to replace distinct collateral visualisations at different asset teams with a single integrated collateral overview, hopefully within the next two years.

“All the different views are correct but it’s not efficient to have separate ones for each [asset] team. To make the best pre- and post-trade decisions, a very efficient system is needed to give a very clear overview and generate better decisions on how to use collateral,” says Dongyi Yin, senior collateral and securities lending manager at MN.

While there is broadly support for the initiative inside the company, the strong performance of the existing system during the volatile early months of 2020 has provided useful political capital, she says.

“Our team has always been pushed to go further and provide more automation. But I think if we had a new project in the future it could get more support. The performance during March and April would support our argument,” says Yin.

Achieving convergence doesn’t just mean making progress at individual firms. A more harmonised market needs consistent data standards facilitating a more interoperable ecosystem. These elements – effectively the aims embodied in ISLA’s common domain model – remain some way off.

ANY CONVERGENCE STRATEGY MUST BE PARTLY ABOUT BREAKING DOWN BUSINESS SILOS; THE SUCCESS OF SUCH AN INITIATIVE REQUIRES LEADERSHIP FROM THE TOP.

“TO MAKE THE BEST PRE- AND POST-TRADE DECISIONS, A VERY EFFICIENT SYSTEM IS NEEDED TO GIVE A VERY CLEAR OVERVIEW AND GENERATE BETTER DECISIONS ON HOW TO USE COLLATERAL”

- Dongyi Yin, senior collateral and securities lending manager at MN.

> "ONLY WITH A BETTER VIEW OF YOUR [LIQUIDITY] PROFILE CAN YOU UNDERSTAND YOUR LIQUIDITY LADDER"
>
> **- Grant Davies,** head of sales, EMEA, at EquiLend.

Standardisation

Standardisation is one area where much remains to do. "Each collateral venue will have different structures for collateral eligibility. Standardising these approaches and building these models internally is a huge task, one that also incurs significant ongoing maintenance costs," says Frost.

Standardisation has obvious benefits. "It's a route to become more nimble, and more automated: standardisation increases your flexibility in an odd way. Once standards are in place you can pick and choose where you want to deviate from the standards," says Mark Demo, head of community development at AcadiaSoft.

But regulatory initiatives continued to make progress hard. Demo points to the SEC margin rules, formed after the IOSCO framework had been put in place, but deviating from it. "Things like [the SEC rules] raise the level of complexity and cost as firms must figure how to fit their ideas into the new framework. [It creates] this never ending tactical response to what should be a more comprehensive compliance strategy," he says.

"There are thousands of different collateral schedules, all with different requirements," says Grant Davies, head of sales, EMEA, at EquiLend. "All clients want is collateral mobility, so that the collateral they receive can also be redeployed to use elsewhere, at a clearing house for example. However, that clearer might not take the collateral in the form they have received. If you can create standardisation in collateral – employing HQLA or at least a comparable pool of assets and the resultant mobility that provides – the gains for member firms are huge," he says.

Firm-specific legacy issues have led to a convergence which is improvised or uncoordinated.

"Every firm's architecture is different, people have been putting sticking plaster around a bunch of different functions to make the world work," says Davies. "Integration with a front-end system, settlement, and messaging are all vitally important if you are to see the inventory clearly and understand where you are at the back-end with the collateral you are receiving. The costs of the back office remaining out of view of the front office are hard to over-estimate. There are opportunity costs, cost associated with managing the liquidity profile, those arising from capital controls and restrictions. You just have to use the data," he says.

Political will

Any convergence strategy must be partly about breaking down business silos. The success of such an initiative requires leadership from the top: without a senior mandate to co-ordinate disparate business lines it is unlikely to succeed. This is in part because what's right for the firm may not prevail if it is at odds with the interests of an individual business line.

This means first creating an overall governing structure incentivising these seemingly disparate divisions to work together.

"In particular, everyone involved – whether provider or producer of collateral or cash – needs to have visibility about what rules are driving what costs," says BJ Marcoullier, head of sales and business development of Transcend. "You must ensure that anybody with collateral to meet any other obligation is incentivised: it will only work if people get paid for usage," he says.

"Transfer pricing is a key element of the overall architecture: if you create the wrong incentives, that defeats the benefits of enterprise optimisation. It's not an easy topic, since it's not initially about making new money but strategically and fairly allocating the money you have made. It's essential to create the right incentives," says Bimal Kadikar, founder and CEO of Transcend.

Once the political will is there, the journey of many sell side firms in integrating equity and fixed income desks in the years following the GFC suggests that the smoothest convergence entails two legs. "The first iteration was bringing the financing together in a centralised unit. The second iteration – which has been the focus over the last 18 months – looks across the whole firm to understand what does the tech stack look like that facilitates that political will," says Michele Filippini, EMEA triparty product management lead, collateral services, at J.P. Morgan.

"A number of big users of triparty may have distinct fixed income and equity financing desks across multiple regions, but many now have global collateral desks, sitting across every asset line," says Paul Pirie, executive director, collateral services product, at J.P. Morgan.

"So today you have an equity repo trader and a fixed income financing desk, all in the [collateral management] meeting together. But, crucially, the collateral trader leads the meeting. Collateral management is no longer a back office function but an active front office optimisation one," he says.

Connected technology

Digitisation is an important pre-requisite for convergence. But an even more vital element, often missed, is that this technology be connected. This gives view of the collateral profile across the business, says Davies of EquiLend. "Firms need to know what collateral they have visibility to and where they can put it."

"Only with a better view of your profile can you understand your liquidity ladder, including the liquidity ratios you are tying up and the forward view

J.P.Morgan

MARGIN REQUIREMENTS

Addressing the growing collateral management needs at CCPs

By **Ed Corral,** global head of collateral strategy, and **Pradeep Sreekumar,** associate, collateral services product development, J.P. Morgan.

As margin requirements have expanded at Central Clearing Counterparties (CCPs), highly manual processes can result in less-than-optimal outcomes. Specifically, there is an opportunity to make the delivery and return of CCP-related collateral, including intra-day recalls and substitutions, substantially more efficient using automated solutions and triparty functionality.

In response to CCP member feedback, J.P. Morgan is expanding its third party Collateral Services to include margin requirements at CCPs, helping the exchange members as well as the collateral services themselves. By combining Triparty optimisation and Eligibility engines with its Derivatives Collateral Management capabilities, collateral can be moved bilaterally while still benefiting from the robust optimisation, automation and eligibility tests triparty offers.

Efficiencies are created when the CCP member outsources their daily margin interaction with the CCP to J.P. Morgan. Once the relevant pool of collateral is accessible, J.P. Morgan's service manages that collateral against margin obligations, continuously adhering to the CCP's eligibility requirements and their specific messaging protocols.

The service is designed to cover both House and Client margin requirements.

- For House requirements, a traditional funded longbox approach is likely: Collateral posted is optimised based on the CCPs eligibility schedule, as matched up against the available pool of the CCP member's collateral held in the J.P. Morgan longbox.
- For Client margin requirements at a CCP, J.P. Morgan will have the ability to source collateral from external custodial locations, eliminating the need to change Standing Securities Instructions (SSIs) with underlying clients. The Client Clearing Organisation's underlying client margin requirements at the CCP are optimised, delivering a more efficient operating model and funding profile.

This solution is currently being piloted and planned for delivery in early 2021. ■

"ASSET MANAGERS AND ASSET OWNERS DON'T NEED TO GO ON [THE CONVERGENCE] JOURNEY ALONE; THEY ARE JOINING A WELL-TRODDEN PATH"

- Ed Corral, global head of collateral strategy at J.P. Morgan.

of your obligations. This releases you to worry about your response to market events, such as how to find the government bonds you had borrowed against your equity portfolio – as in February and March – when managers were selling equities fast," he says.

Triparty and convergence

The flexibility and automation benefits of triparty have much to offer in simplifying important steps towards achieving convergence. "With non-cash loans you can remove the need for initiating delivery instruction every time the value of the stock increases or decreases," says Matt Wolfe, executive director of securities lending at OCC (Options Clearing Corporation).

"Also, triparty agents provide authoritative pricing. There should be no disagreements over how much is owed from one party to another because of different pricing. This is another way to help reduce friction," he says.

With silos being dismantled, triparty providers can work to join up custody, derivatives, collateral management and agency lending. "This target state architecture modularises all the functions we perform on securities, providing a seamless experience for our the buy side clients. For example, if you have UMR obligation but are also involved in broader lending or have liquidity requirements, you will be stuck with multiple competing solutions," says Ed Corral, global head of collateral strategy at J.P. Morgan.

Choice

For the buy side coming later into the UMR process, and short of time, the good news is that in attempting to dismantle the silos that frustrate convergence efforts, they have plenty of support. "Asset managers and asset owners don't need to go on that journey alone; they are joining a well-trodden path," says Corral. "But they should consider the opportunity costs of not having optimisation in place. There is opportunity lost in a margin management approach that doesn't take into account other financing opportunities and ties up assets in a siloed structure when the assets could more profitably be used elsewhere."

However, for some firms that are more advanced in their convergence journey, the sticking point remains vendor offerings.

NN Investment Partners has not yet fully completed the second stage of its collateral optimisation journey, moving to a complete integrated platform to support its integrated team. The company uses one system for portfolio management including collateral management and another to support securities finance with in-house developments focusing on optimisation.

"There are a lot of platforms that are well developed to improve the operational efficiency of collateral management. But when it comes to providing the means to manage the collateral book from the investment perspective, and giving good overview of your collateral usage, the solutions are still not there," says Bouthers.

A plan for all seasons

Bimal Kadikar, founder and CEO of Transcend, and **BJ Marcoullier,** head of business development, explain how an integrated technology platform can deliver a best-in-class collateral and optimisation solution, regardless of whether a company follows a siloed or integrated approach to collateral management.

As collateral management increases in importance, different firms are fashioning different approaches to meet the challenge. These typically vary with the maturity of the business, the specific organisational structure and the wider business strategies.

One useful way to distinguish these approaches is into two broad categories: a siloed approach and a centrally managed approach. In the first case, companies continue to manage collateral requirements at the desk or business line level. In the second, they adopt a central collateral funding capability across desks. How they address today's growing challenges around collateral management – across data, analytics, optimisation or mobilisation – will depend in part on which approach they adopt.

Importantly, however, companies following either approach can benefit from a common technology platform and architecture. Regardless of how far along the collateral journey they are or how segregated their internal collateral systems, there are important gains on offer.

Optimisation

Everyone now believes in the religion of optimisation. However, the question of how best to shape the operating environment to achieve it raises political, budgetary and strategic debates within firms.

In this respect optimisation is a practical, not a theoretical goal. A scenario-based optimisation framework needs to be highly customisable in time and space. Businesses or individual desks may require collateral views at particular times of day, month, quarter or year. These scenarios may have to be optimised across all obligations – combining triparty, derivatives and repo, for example – or may have to focus on a highly specific obligation – a single counterparty at a single future time point, for example.

When it comes to the practical business of optimisation, what looks like the cheapest course of action may not always turn out to be so – as when a substitution puts a client at a considerable inconvenience, creating an opportunity cost that is hard to measure. Most production algorithms are limited to a simplistic waterfall approach, with some firms using linear programming that can accommodate variable costs. In practice, firms deal with diverse cost factors that are a mix of variable and fixed costs. Being able to optimise across fixed and variable costs is a critical requirement for enterprise optimisation.

We often hear from clients that they are limited to the number of collateral moves their teams can support. If STP constraints limit you to 100 moves per day, for example, you need to be confident you are picking the 100 best ones.

Mobilisation

Optimisation provides the blueprint for the right outcome: mobilisation is needed to achieve it. In this case a booking service is vital in ensuring that collateral can be sent, both fulfilling obligations and achieving optimised allocations: be those the STP route to a CCP; a triparty allocation to a triparty agent or bi-lateral allocations sent to margin centres.

Analytics and digitalisation

Digitalisation is essential for the best collateral management. If you don't have a digitalised CSA, you can't optimise. Conversely, if you have all the inputs available and you can optimise the bookings, you will have a well-oiled machine.

Transfer pricing is a crucial component of making the machine work. Those booking the trades need the right incentives structure: the right pricing is a prerequisite for making the optimisation effect real for those working on the front lines. Without it, trust in the system will be lacking.

Conclusion

Clients are increasingly coming to understand that vendor technology solutions can be implemented without compromising their institution's intellectual differentiators. The technology framework can work for them increasingly like a utility: leaving a company's intellectual property, concentrated in the front office, to eek out its commercial edge. Companies still own the decision-making but they can achieve the scale and advanced capabilities that regulatory compliance today requires.

Remember these firms came about to excel in a particular business line, not to do the best job in building a collateral management solution. Those companies who recognise this early are best placed to accelerate the journey using innovative technology to lower cost processing with no loss of competitive advantage. ■

Three pillars of collateral management

Trevor Negus, senior product manager, TLM collateral management at SmartStream Technologies explains how connectivity, standardisation and outsourcing provide three crucial supports when it comes to building an effective collateral management solution.

The growth of electronic trading in recent years has seen trading volumes surge. Surging too has been the demand for talent, which is needed to automate the processes that support trading. One result has been that collateral management has moved towards the top of the operational agenda. Uncleared margin rules (UMRs) and the EU's Securities Financing Transactions Regulations (SFTR) are providing an additional set of regulatory demands advancing the case for automation.

A successfully automated collateral management process rests on three pillars: connectivity, standardisation and the availability of hosted solutions.

Connectivity

Collateral management is not a standalone activity: to deliver maximum value it needs to be connected across the firm – feeding information forward to investor departments, legal systems and downstream settlement infrastructure and feeding back in information from the custody systems to inform of fails.

The limitations of paper correspondence and reporting are well documented. But the widespread connectivity needed to underpin this level of integration is challenging to achieve.

Broadly speaking, the benefit of electronic messaging and related functionality in facilitating both a variation margin and an initial margin process is accepted by most companies. Connectivity here has two dimensions: external, creating links with industry utilities, clearing houses, and custodians and internal, linking to functions like inventory management credit and operations

Achieving smooth collateral management also means breaking down business silos. It is no longer any good to have separate pools of collateral supporting OTC, repo and securities lending, in turn divided across Asia, Europe and the US. Today, the view of inventory must be consolidated and available in real-time rather than delayed by end-of-day batching processes.

Connectivity is also required to ensure that all divisions of the client firm – the senior management, say, or the team responsible for running credit risk reporting systems – know the status of a margin call and any credit, liquidity or operational problems that it has thrown up.

Standardisation

The industry has taken significant steps towards standardisation, through the work of ISDA, in particular. Specifically, the ISDA SIMM model seeks to simplify the initial margin calculation by standardising the model. There is work to standardise common asset definitions, facilitating a clear taxonomy when it comes to eligibility buckets. ISDA's common domain model, meanwhile, is working to unify as much data as possible that feeds into the collateral management process, removing the obstacles and hold-ups entailed by translation.

While firms appreciate the progress of the industry initiatives co-ordinated by ISDA, achieving standardisation internally – across trading systems and the operations infrastructure – remains a challenging process.

Outsourcing

The third pillar supporting effective collateral management concerns the outsourcing of collateral applications.

Smaller firms, in particular, have been drawn to the software-as-a-service model that leverages remote hosted solutions to streamline collateral management processes. The appeal of this route includes lower install costs, faster upgrades, and greater scalability. It comes with lower hardware costs and reduces IT support and inconvenience associated with maintaining an in-house solution. Finally, a remote hosted solution removes the bother of security updates, secures business continuity protocols, and smoothens the process of audit and archiving

In economic terms the shared operational costs associated with deploying on the cloud – which effectively shares costs across a large number of distributed users – are attractive, too. Security concerns associated with using cloud storage and processing, which for many users have provided an obstacle in the past, can be addressed by employing private, as opposed to public or multi-tenanted cloud hosting. ■


SMARTSTREAM
Let's talk about
the next wave in
AI, Machine Learning
& Managed Services

Collateral managers, agent lenders, prime brokers, retail brokers, beneficial owners...

With EquiLend Spire technology, you can manage your entire securities finance program and collateral management activity on one single platform. Experience a streamlined, convenient, single view into your trading book – EquiLend Spire allows you to manage and grow your business while effectively managing your collateral with ease.

From pre-trade discovery through trade settlement, EquiLend Spire resolves the pain points of yesterday's fragmented securities finance processing by joining solution providers and critical vendors onto one centralised venue. Our game-changing features and customisable systems make EquiLend Spire tailored to fit your program's unique needs. Enjoy as a full-service platform, or adopt any of the functional modules, enabling the flexibility to pay only for what you need.

Firms of all types, including banks, brokers, beneficial owners and collateral management desks across the industry, are already benefitting from EquiLend Spire's state-of-the-art features, including:

Full trade lifecycle management
Improve efficiency and support data integrity with centralised securities finance trading, post-trade, books and records, market data, benchmarking, regulatory compliance, order management needs and more.

Full trade automation
Seamless settlement management, credit and risk monitoring with straight-through processing (STP) configuration that enables full front-office automation. Only minimal middle- and back-office exception handling needed.

Real-time collateral inventory
View full trade economics in real time for all positions, settlements and collateral needs, enabling a complete view of your trading impact on collateral inventory to meet daily operating, core and longer-term strategic needs. Maintain and monitor all non-cash collateral per loan.

Open architecture
Connectivity to all securities finance solutions vendors, including the entire EquiLend enterprise, including NGT, Post-Trade Suite, Collateral Trading, EquiLend Exposure, DataLend and SFTR.

Trade analytics
Includes more than 300 pre-designed reporting formats and best-in-class custom reporting and data-rich dashboards.

Convenient, user-friendly display
Centralise systems, accounts and reporting management controls with EquiLend Spire's Customisable Entitlement Permissions, which integrates with various authentication modules, including Single Sign On (SSO).

EquiLend Spire's function-based module configuration (e.g., Trading, Inventory, Settlements, Compliance, Accounting, Reporting, etc.) is intuitive, promoting a seamless user experience.

Flexible & customisable infrastructure
Featuring infrastructure designed specifically for the securities finance industry, our systems are highly adaptable and configurable to support ever-evolving industry conditions. EquiLend Spire seamlessly integrates with both proprietary systems and external vendors and directly connects with external depositories, liquidity and post-trade providers.

Some equilend spire functions include:

TRADES & POSITIONS
- SBL & Repo
- Borrows & Loans
- Cash vs. Non-Cash
- Bilateral vs. Triparty
- Open vs. Term
- Locates, IOIs, Targeted Availability
- Income/Expense Accruals
- Position Maintenance
- Position History (10 Years)

CREDIT & COMPLIANCE
- Credit & Account Limits
- Exposure Management

...welcome to your securities finance program leveled up.

- Compliance Engine
- Risk Monitoring
- ALD
- Restrictions
- SFTR, CSDR, etc.

REPORTS
- Standard Reports
- Customised Reports
- Multiple Report Formats
- Report Types
- On-Demand and Scheduled
- Real Time
- Dedicated Team

OPERATIONS
- Cash Balancing & Management
- Cash and Non-Cash Collateral Management
- Collateralisation and Exposure Management
- Trade Review and Settlement Instructions
- Settlement Processes
- Monthly Billing & Invoice Settlement
- Post-Trade Reconciliation Services (Contract Compare, Marks, etc.)
- Triparty Connectivity

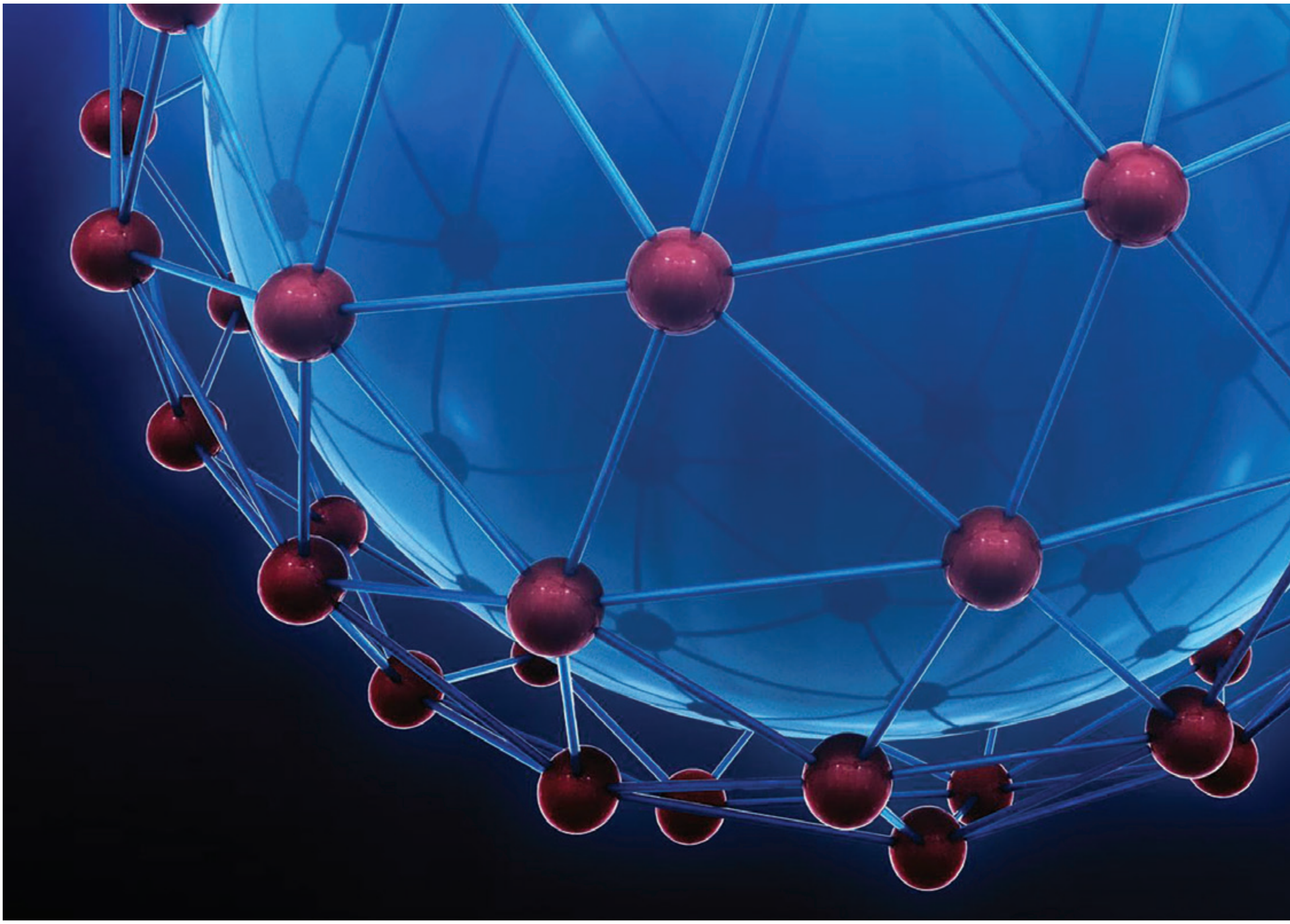
ACCOUNTING
- General Ledger & Sub Ledger
- Accrual Calculation
- Gross, Net Earnings Calculation
- Client/Agent/Co-Agent Earnings Split
- Performance Attribution and Reporting
- Profit & Loss Report

STATIC DATA
- Account Master
- Account Groups
- Security Master
- User Setup and Access Privileges
- Pricing
- Securities Finance Related Data (e.g. rates, fees, utilisation, etc.)
- Corporate Actions
- SSIs ■

Contact us for more information and begin experiencing the revolutionary benefits of EquiLend Spire today

Grant Davies
Head of Sales, EMEA
EquiLend
grant.davies@equilend.com

Mike Doyle
Head of Sales, North America
EquiLend



Collateral mobilisation

An effective collateral transport solution means navigating multiple regulatory regimes and charting a path around – or through – a firm's historical architecture.

Mobilisation is a hard concept to tie down. A handy definition from the ISSA collateral working group could be summarised thus: sourcing and pooling of collateral to minimise shortfalls by moving cash, securities, funds or commodities, across borders at the right time to cover exposures.

While participants may not agree on a precise definition of mobilisation, few would argue that 2020 saw an urgent need for the process. John Pucciarelli, head of industry and regulatory strategy at AcadiaSoft says the peak period of volatility during March and April 2020 saw some clients make 400 to 500 more calls per hour across the platform during peak times. "Across the community this amounted to 10,000 more calls to be processed per hour than in the months leading up to March."

AcadiaSoft Analytics shows margin call volumes jumped from 1.06m in each of January and February to 1.78m in March. "Into May, daily volume levels continued to be 20% to 30% up from pre-crisis levels," says Pucciarelli.

At MN, a Dutch pension fund group with €175m of AUM, the role of automation in facilitating mobilisation was starkly demonstrated during the volatility of early 2020. "We traditionally hold a lot of non-cash collateral with the banks delivering cash,

WHILE PARTICIPANTS MAY NOT AGREE ON A PRECISE DEFINITION OF MOBILISATION, FEW WOULD ARGUE THAT 2020 SAW AN URGENT NEED FOR THE PROCESS.

"MANY BANKS SEEMED TO FOCUS ON CREATING A MORE CENTRALISED SOURCE OF COLLATERAL, SO THAT WHEN THERE IS A SPIKE IN FUNDING NEED, THEY CAN QUICKLY PULL FROM A CENTRALISED POOL"

- Matt Wolfe, executive director of securities lending at Options Clearing Corporation (OCC).

but during that time we had to return much of this cash in some cases, and this required an efficient liquidity management process to get that back in on time," says Dongyi Yin, senior collateral and securities lending manager at MN.

"During March and April it was really visible that there was more need for automation – even though our system performed well. There were times when you may have been getting twice the number of calls in some cases. You don't want to have to submit a new file and have to scan for exceptions every hour. Our exception-based processing held up well, which showed it will be both future-proof and crisis-proof."

The period demonstrated a general principal of operational infrastructures: people only notice them in a crisis. "In the normal days collateral management would not sound very attractive or important, but during those crisis times it proved the importance for the business. We felt proud that we could fully manage our margin obligations well," says Yin.

Many firms lacking the mobilisation resources of MN and under pressure to mobilise quickly, had to meet calls with cash, creating big opportunity costs. "During February and March of 2020 when volatility and margin requirements spiked, cash balances increased 20-fold," says Matt Wolfe, executive director of securities lending at Options Clearing Corporation (OCC).

On the sell side this exposed the gulf between firms that had built a robust mobilisation solution and those who hadn't.

"Many banks seemed to focus on creating a more centralised source of collateral, so that when there is a spike in funding need, they can quickly pull from a centralised pool," says Wolfe.

But many others have favoured a siloed model of collateral supporting separate obligations in futures, options, swaps, fixed income, equities and FX. Without the flexibility to shift assets to where they were most valuable, many participants fell back on cash.

"Certain participants were able to quickly increase the amount of equities or government securities on deposit so as not to maintain cash. By contrast, those who lacked collateral management systems designed to allow for the fast mobilisation of these resources just left cash on deposit. For that second group, there was a very high opportunity cost," says Wolfe.

The mobilisation task ahead

What opportunities exist for the second group of firms to improve their mobilisation systems?

At MN, which only uses government bonds for collateral management, securities financing requirements are simpler than they would otherwise be. Nonetheless, the company has chosen to use the same provider for custody as for agency lending, in part because of the benefits around mobilisation and transport. "When it comes to [assets] used in securities lending the other teams can still see

> "EACH COLLATERAL VENUE WILL HAVE DIFFERENT STRUCTURES FOR COLLATERAL ELIGIBILITY. STANDARDISING THESE APPROACHES AND BUILDING THESE MODELS INTERNALLY IS A HUGE TASK"
>
> **- Rob Frost,** global head of product at Pirum.

those assets: our operations team is communicating with the custody team, meaning the lender gets a notification. It's important to keep those lines very short," says Yin.

The delay of the compliance deadline under UMR provided valuable breathing space for the roll out of the wider product, meanwhile.

"We have funds that need to be compliant next year. We have a working group focusing on this, evaluating the impact, assessing what systems we'll need, what contracts and so on," says Yin. Nonetheless, the delay was welcome. "It gives us room to breathe and more time over choice and implementation. We only want to implement this once so we need to get it right first time, rather than install something that we must be constantly fixing."

For buy side clients, typically less experienced users of triparty, meeting UMR rules may be the first time they have encountered it.

Asia-Pacific focus

In APAC, the popularity of triparty has grown as buy side firms either fall in scope or prepare to be covered by UMR's latest rules. "Those impacted by phase five tend to be the larger asset owner clients, who are often under pressure from their counterparties reluctant to accept a high degree of change in their mutual infrastructure," says Katie Emerson, head of agency lending and collateral management sales, EMEA at J.P. Morgan. "Triparty may provide a simpler and more robust way to control a range of upstream collateral management needs including the management of margin calls".

Achieving mobilisation means building connectivity and a process for selection, and ensuring the two combine. "Connectivity is a process of establishing the real-time 'pipes and plumbing' to consume the necessary data and process the outputs of the model. For selection you need the optimisation algorithm itself, the means of digitising collateral schedules and a system that checks eligibility rules and limits and

APPLYING MOBILISATION TO COLLATERAL SPREAD ACROSS MULTIPLE JURISDICTIONS PROVIDES SPECIAL CHALLENGES, AS THE CASE OF ASIA DEMONSTRATES.

exposures on a real-time basis," says Rob Frost, global head of product at Pirum.

Applying mobilisation to collateral spread across multiple jurisdictions provides special challenges, as the case of Asia demonstrates.

Recent years have a seen a growth in inter-entity structures in the region. A global bank headquartered in London, for example, would see the benefits of distributing its balance sheet across entities in Hong Kong, Australia and Singapore, says Bhavna Haswani, vice president, APAC collateral services product manager at J.P. Morgan. "They understand that by moving balance sheet to Asia in this way, they get better funding benefits."

Patchwork solutions

Given the heterogeneous patchwork of legal and regulatory regimes spanning the region, this is not always easy to achieve. CCPs are in their infancy; most still only accept cash as collateral. In many cases regulations governing onshore assets prevent them from being moved in this way, in which case a sub custodian may act as a local proxy. Even in Japan, the region's second largest economy, there are specific local requirements around the pledging of onshore government bonds, limiting how banks with a presence in the region can use them.

As governments and regulators learn the benefits of cross-border asset movements to deepen market liquidity, large firms are proving valuable advocates for change. "There is a lot to be done, working with regional bodies to bring liquidity into the markets via standardisation and harmonisation," says Haswani.

China is one example. The recent inclusion of China in FTSE and MSCI indices has increased demand from clients who wish to hold assets through Stock Connect, the collaboration between the Hong Kong, Shanghai and Shenzhen Stock Exchanges, or directly hold onshore bonds.

"Currently there is no mechanism to hold RMB bonds outside China. We have been working with a local bond depositary on an initiative to internationalise this market, by understanding how to bring cross-border collateral management programs," says Haswani.

Title transfer not always possible

Limits on title transfer provide another challenge. China, Taiwan, India and Korea are all ID markets: there is no provision for a nominee structure, assets must be held by beneficial owners, so conventional transfers between beneficial owners under triparty, which typically require a transfer of title, are impossible.

Employing a pledge solution in Korea, J.P. Morgan uses a subcustodian as local proxy, drawing on its strong global network, ensuring a clear passage of assets to the non-defaulting party in the case of a default. "This way you get balance sheet efficiency and legal protection, even though the beneficial owner doesn't change," says Haswani.

Even when a practical pledge-based solution can be found, users take time to build confidence that their claim on assets is enforceable. "As part of the due diligence, you expect the recipient of pledge to take time to get comfortable that the pledge they have is legally enforceable. Otherwise for them there is not only risk regarding the collateral but also original counterparty risk that was meant to be mitigated by the collateral," says O'delle Burke, collateral services global lead for product innovation and head of collateral services, APAC, at J.P. Morgan.

The importance of standardisation

Asia's heterogeneity raises another question that plagues effective mobilisation in developed markets too – that of standardisation "Each collateral venue will have different structures for collateral eligibility. Standardising these approaches and building these models internally is a huge task, one that also incurs significant ongoing maintenance costs," says Pirum's Frost.

It illustrates a more general point about the need for flexibility in mobilisation. The process will take different forms, and use different channels, depending on where – and for whom – it is happening, concludes Karl Wyborn, chief commercial officer of Pirum.

"I think it's important to realise that there is no single solution to mobilisation. But the good news is that this is not a binary challenge; even some relatively modest improvements in mobilisation can deliver meaningful P&L gains," he says. ■

> "THERE IS A LOT TO BE DONE, WORKING WITH REGIONAL BODIES TO BRING LIQUIDITY INTO THE MARKETS VIA STANDARDISATION AND HARMONISATION"
>
> **- Bhavna Haswani,** vice president, APAC collateral services product manager at J.P. Morgan.

How Covid and UMR highlight the benefits of automation

John Pucciarelli, head of industry and regulatory strategy and **Mark Demo,** head of community development at AcadiaSoft, discuss how Covid and Uncleared Margin Rules have increased the pressure for buy side firms to move forward with automation programmes, and provided a sharp wake-up to those who haven't yet started them.

Mark: The Covid-related volatility from March demonstrated that, for many participants, much of the margin and collateral process is still messy, hard to scale and ripe for automation. For those who had not invested in automating the margin call process the period exposed the weaknesses of manual systems, demonstrating that when volatility spikes, you can't throw enough people out there to deal with the number of exceptions.

By contrast, for those who had achieved high levels of automation in their post-trade infrastructure the benefits were clearly demonstrated. As these firms navigated the pandemic volatility their earlier STP investment choices were soundly validated.

Consider the OTC data collected by AcadiaSoft Data Exploration (DX) platform during the period. AcadiaSoft's OTC margin call volumes jumped from approximately 1.06m in each of January and February to 1.78m in March. Into May, daily volume levels continued to be 20% to 30% up from pre-crisis levels. Average call size jumped from $3.4m in February to $8.62m in March, the total value of collateral calls increased from $1.64trn to $5.56trn.

With collateral groups forced to work from home and receiving near double the average volume of calls at up to five times the typical size, you might predict an increase in call dispute rates when it came to matching and agreeing calls between counterparties.

In fact, call dispute rates remained relatively steady at around 28%, as seen in prior months of the year. Clearly, firms that had invested over the last decade to automate their margin process with AcadiaSoft navigated smoothly through the storm.

FOR THOSE WHO HAD ACHIEVED HIGH LEVELS OF AUTOMATION IN THEIR POST-TRADE INFRASTRUCTURE THE BENEFITS WERE CLEARLY DEMONSTRATED

– Mark Demo.

John: It's clear that crises spur action. In the global financial crisis of 2008, participants were forced to look at their organisations and see where the gaps were. Covid revealed the benefits accruing for even small pieces of automation. For example, MarginManager (formerly MarginSphere) demonstrated how simple margin messaging could help save billions of dollars of risk.

If there is one thing we have learned from every financial crisis is that automation is no longer a nice to have but a must have if you want to continue to remain competitive and grow your business. Today as in 2008, the wider lesson was obvious: finish the automation effort now and set yourself up for the next round of volatility and uncertainty.

Full automation achieves this by ensuring that every stage of your back and front end processes – including margin call, response, collateral pledge and movement – will work in a synchronised, standard and reliable fashion.

Mark: The impact of UMRs continues independently of Covid, meanwhile. ISDA SIMM™ provides a standard way for firms to exchange and reconcile risk, setting expectations for standardisation and transparency around the calculation of initial margin. In the round, UMRs are providing another vital spur for automation. And, once again, firms who have invested in automation now also have the links with custodians to facilitate triparty movements in addition to transparency on the calculation and reconciliation of initial margin.

John: Covid revealed the resilience of ISDA SIMM™, the initial margin model used by all firms in scope for the UMRs to exchange regulatory initial margin. In the face of criticism of whether ISDA SIMM™ had adequately handled the stress placed on it by the volatility from March, AcadiaSoft looked at 6,000 trades across all asset classes, including rates, FX, equities, credit and commodities. Sure enough, the study showed no exceedances for a diverse, multi-asset class portfolio during the COVID stress period, showing that ISDA SIMM™ did withstand the period of stress and volatility and performed as it was designed.

The high volatility of COVID shone a light on how margin calls are communicated, too. Firms still using email have realised that they are falling behind, and can see that solutions exist to fix that. Equally, today they have a clearer sense of the number of people they have to hire and the time it would take them to build a solution in house.

It has also become clear that a fully functioning solution means moving beyond a standard point-in-time view of a firm's internal performance to a view that ranks it relative to its peers. Because AcadiaSoft is processing nearly 80% of all daily OTC margin calls through its platform, AcadiaSoft can provide this unique statistic against firms of a comparable size. This is provided on a blind basis: the data recipient sees where they rank in the peer group, with peers simply labelled "Dealer 1" or "Dealer 2".

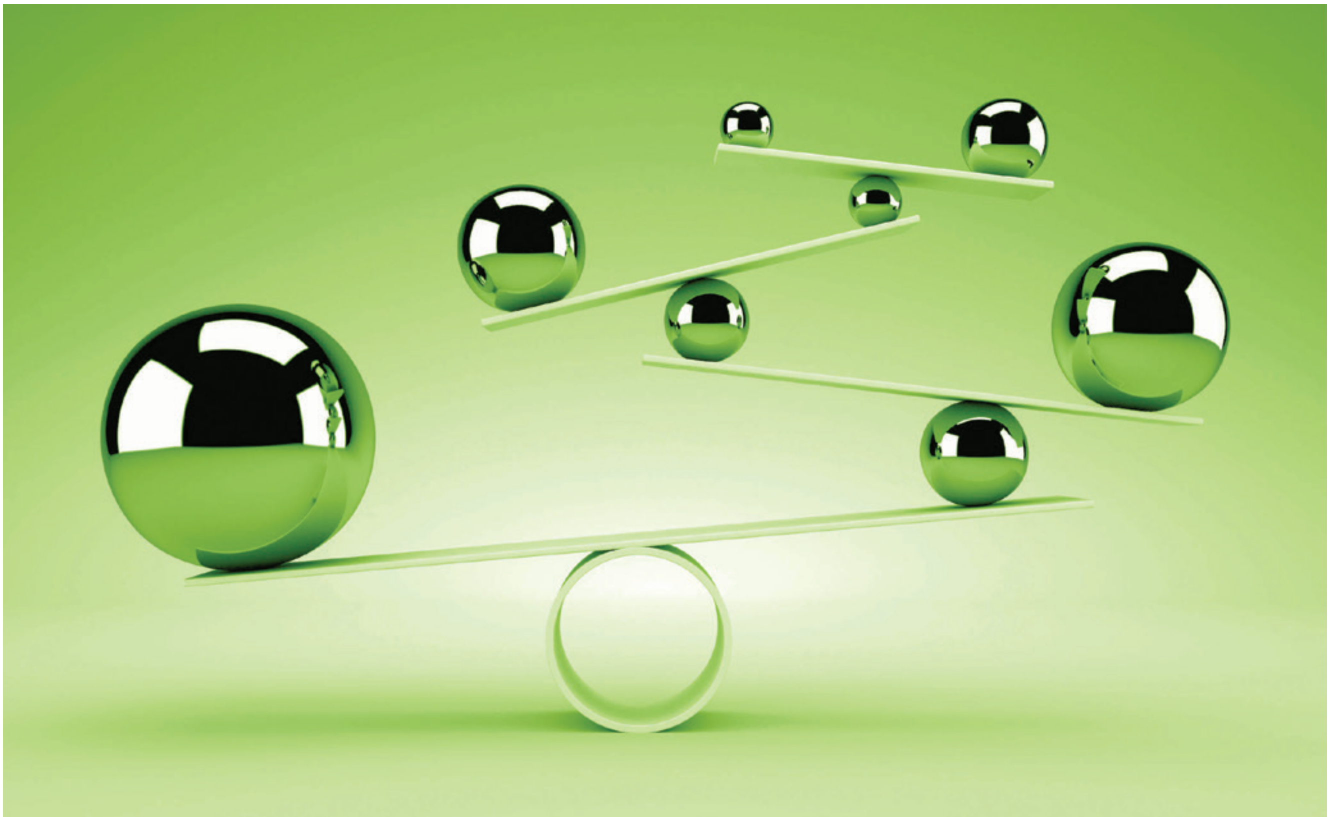
This unlocks a whole new dimension of data aggregation with which clients can improve their processes. In short, it makes it impossible for anyone to bury their head in the sand and continued processing margin calls through email.

In this way, the lessons of COVID reinforce a growing awareness triggered by UMR – that experienced technology partners provide clear benefits. Firms have better understood the unforeseen costs and obstacles typically entailed by building a solution internally and the benefits of embracing the existing market infrastructures available through the external route. ■

AUTOMATION IS NO LONGER A NICE TO HAVE BUT A MUST HAVE IF YOU WANT TO CONTINUE TO REMAIN COMPETITIVE AND GROW YOUR BUSINESS

– John Pucciarelli.

Optimisation in theory and practice



As Covid compounds pressure from regulatory reform to accelerate collateral optimisation, measuring the benefit of different approaches remains a key challenge.

Regulatory reform has long focused growing attention on how to optimise available collateral to meet obligations as efficiently as possible. The latest dimension is provided by UMRs, as more than 1,000 new buy side counterparties come into scope by 2022, imposing tough operational requirements on the posting and management of variation margin.

Other regulatory initiatives are adding to the operational burden. The EU's Securities Financing Transactions Regulations impose new requirements around margin and reporting in the repo and securities finance space, further adding to the appeal of a smooth optimisation process.

Measures to progress optimisation initiatives received added urgency in the spring, when Covid hit and market volatility in March and April saw many participants forced to meet variation margin calls with cash, at great expense.

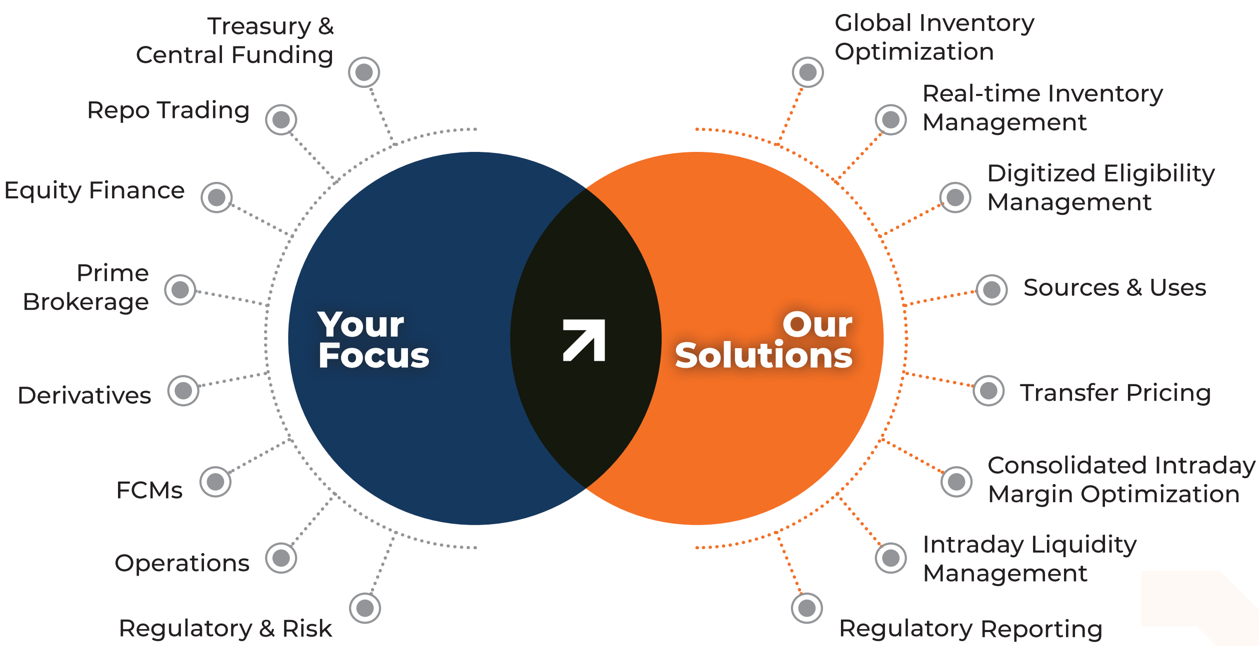
But even before Covid focused minds on the robustness of optimisation systems, legacy solutions were creaking under the pressures of the pile up of regulation and the obstacles provided by a firm's existing infrastructure, says Rob Frost, global head of product at Pirum.

"The challenge historically has always been the quality of the inputs and the fact that there were often silos that prevented a given optimisation model from being applied across multiple business lines, collateral venues and underlying products. [Regulation is] driving firms to introduce more complex, dynamic parameters into their optimisation process including capital or risk capital, liquidity, transcend

Inventory | Liquidity | Funding

The Optimization Leader

Transcend's unique technology provides a true, enterprise-wide solution for collateral, funding and liquidity optimization – in real-time. So whatever your needs, trust Transcend to help drive greater profitability across your collateralized businesses.



info@transcendstreet.com   Stay Connected   +1-866-608-0381   transcendstreet.com leverage and return constraints," he says.

Covid was an opportunity to re-evaluate their effectiveness. "Covid and the UMR are setting the direction for automation. Now is another opportunity to see what's next," says Mark Demo, head of community development at AcadiaSoft.

A new take on UMR

That reflection yields a different response from the buy side to the sell side. Unlike the sell side, to whom regulatory coverage came earlier, many buy side firms are today experiencing the full weight of regulatory compliance in preparation for UMR – and the associated need for better optimisation tools - for the first time. Firms that traditionally outsourced this or didn't give it much consideration – a common approach even among large buy side firms – are having to engage.

"With UMR phases five and six, the collateral posted for initial margin has to be segregated, meaning the operational and legal requirement to mobilise is so much higher," says BJ Marcoullier, head of sales and business development of Transcend. "You will either outsource this to a custodian – in most cases – or you will need a similar tool set to the one they will provide."

Initial margin rules have added a third dimension to the process of balancing fund managers' trading (buying and selling activity) with activities in a securities lending program, for example. "It was a case of divvying up portfolio of internally versus externally managed collateral and then relying on the custodian to coordinate between lending and trading assets. Now there is a third variable, which is to take into consideration securities required for initial margin," says O'delle Burke, collateral services global lead for product innovation and head of collateral services, APAC, at J.P. Morgan.

With buy side portfolios typically heavy on equities – which in most cases are not admissible for initial margin – the pressure increases.

Pinch points concern occasions where a portfolio manager needs to sell an asset that has been flagged for use for initial margin. Another case is where there is high demand for a holding by a broker dealer as a borrower – which the manager is keen to meet to generate lending revenue – that is being employed to meet an initial margin obligation.

To clear or not to clear

Another area in which effective optimisation has become more complicated is how to measure the cost of cleared versus uncleared trades, which is more nuanced than simply calculating which clearing venues offers the lowest price.

A trade may be cheaper to route through a

"TRIPARTY ALREADY WORKED FOR THE EARLIER STAGES OF UMR, BUT UNDER PHASE 5 AND 6, FIRMS NEED SCALE FOR IT TO MAKE SENSE"

- Katie Emerson, head of agency lending and collateral management sales, EMEA platform sales, at J.P. Morgan.

clearing house, but the wider benefits associated with using a particular counterparty may make it smarter to include as non-cleared business. "It needs to be offset with other savings that come across the whole book of business with that counterparty," says Burke.

Another important consideration is the use of data analytics to pre-optimise collateral on a forward look basis. "Both pre-trade and trade analytics, generally, can deliver meaningful benefits, considering Total Cost of Ownership by leveraging collateral projections and an optimisation algo," says Todd Crowther, global head of collateral management at Pirum. "These include the ability to effectively mobilise collateral on a forward-looking basis, deploy it via directed or semi-directed allocations and ensure cross-venue optimisation of collateral where and when it is most needed."

Title transfer or pledge?

There is also the question of whether to use title transfer or pledge. At MN, a Dutch pension fund group with €175m of AUM, has begun to consider pledge in their securities lending business in recent years, although they haven't yet taken the plunge, says says Dongyi Yin, senior collateral and securities lending manager at MN.

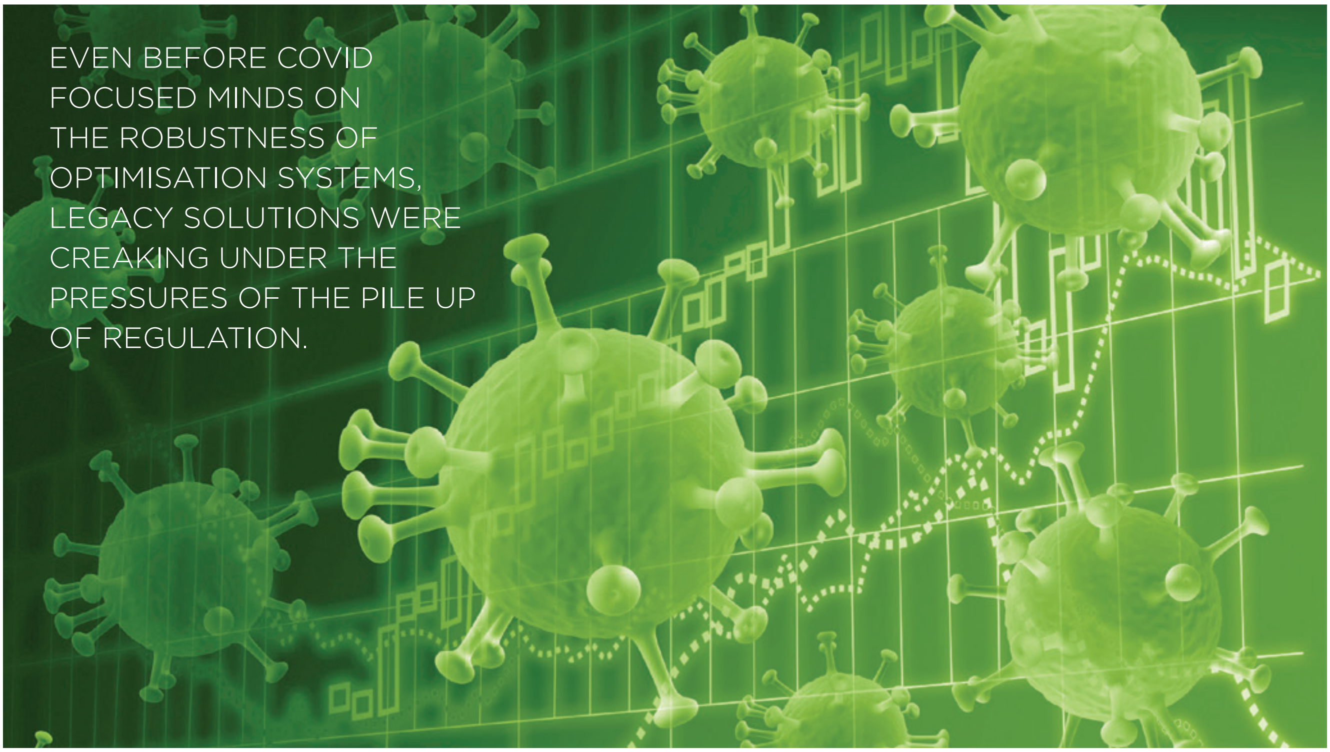
"The pledge structure has been more in the picture over the last few years. We'd still not consider that for bilateral collateral management and nor generally do our counterparties. However, we are looking into it for securities lending: some borrowers like it since it makes it cheaper for them."

Jurisdiction of counterparties adds another layer – US prudential rules may impose different margin requirements from those that EMIR imposes on companies operating in Europe. In some jurisdictions, currency transactions are excluded from margin calculations; in others they are included.

Questions of measurement plague evaluations of optimisation more broadly, too.

"The most financially optimal approach to your derivatives book may be to reshuffle entire allocations, and substitute collateral across all clients. But this may result in dissatisfied clients and/or increased operational costs, which may outweigh the short-term funding benefits," says Bimal Kadikar, founder and CEO of Transcend. "Responsive optimisation models need to frame harder to quantify factors such as funding, liquidity or operational costs as an integrated approach."

The question of entitlements requires special attention when targeting enterprise optimisation across business areas. "Where a business area may not want to share the financing or customer details of transactions, clear entitlements are required at



Enterprise wide collateral management and optimisation: the holy grail of securities finance

Phil Morgan, CEO of Pirum explains the three challenges that technology must solve to deliver progress towards these two long standing targets.

The goal of managing and optimising collateral across all instruments and asset classes has been an industry wide target for many years, indeed decades. Most would agree, despite a very clear understanding of the structural, cultural and technological challenges associated with achieving this goal, progress has been far slower than anticipated. This is now changing.

Banks are some of the most brutally efficient organisations in existence. Rarely do they shy away from instituting those structural and cultural changes necessary to make them more efficient, responsive and agile. Specific to collateral management breaking down structural (and cultural) barriers in the front office was seen as a means of optimising funding as businesses became less fragmented. Progress was slow nonetheless where incumbent technology was difficult and expensive to change.

No surprises therefore that the trigger for material progress was a potent combination of regulatory pressures combined with technological advancement. To some extent the technology became the final piece of the puzzle as barriers were torn down in banks and the benefits of optimising collateral usage grew exponentially as balance sheet, capital and collateral pressures expanded.

From a technology standpoint, the challenge of collateral optimisation can be broken down into three distinct areas. Firstly, identifying the sources and uses of collateral. This is, in the main, a 'pipes and pluming' issue. In many larger institutions this is a non-trivial challenge however given the sheer scale of legacy systems architecture.

The second challenge is the optimisation process itself. The 'brain' if you will. With a sound view of sources and uses of collateral this is a clearly defined mathematical and processing challenge. It's interesting that, whilst this is the part of the process that can drive real alpha, it's (arguably) by far the simplest part to solve...after all, linear programme models have been around for over a century.

The third and final step is the mobilisation of the optimised assets themselves. Another highly material challenge given the sheer scale of the legacy systems that go to comprise most banks' operations networks.

To summarise, viewing the optimise challenge through the lens of technology, we see three well defined problem areas. It's only recently however that technology has really stepped up to the plate to solve these issues. To some degree the resolution is aligned to the birth of a new wave of technology companies, the FinTech revolution.

FinTech companies very typically seek to solve clearly defined, discrete problems in an elegant and cost-effective manner. The nature of the optimisation challenge is interesting in this regard. For those who subscribe to the 'three elements' view described above, only the second element, the optimiser itself, is uniquely a technology challenge. The other two leverage developing technology to provide the required connectivity, automation and digitisation of data. This is perhaps why optimisation has been such a hard nut to crack, until now.

In recent months a series of services have been brought to market that comprise an optimiser embedded within an existing connectivity network. Whilst it would be wrong to describe these as 'turn key' (whenever is that the case in finance?) they are as close as you can reasonably get. The appeal of a solution that delivers meaningful optimisation benefits across all instruments and asset classes without the execution risk is obvious.

In conclusion, there have been a series of false dawns where enterprise wide collateral management and optimisation is concerned. It seems now, given the process of change that many banks started some years ago and continue today, along with the creation of optimisation solutions embedded within existing, robust, effective networks, it is finally within reach.

Pirum would be very happy to discuss in greater detail our range of optimisation solutions. ■

a granular data attribute level to ensure enterprise optimisation is achieved, while maintaining data compliance across group boundaries," says Kadikar.

Once the client has an optimised view, collateral agents will ensure that collateral ends up where it needs to be.

"Clients may partner with fintech providers or develop their own internal optimiser to ensure comprehensive collateral visibility. One of our roles as collateral agent is optimal allocation: either using our own optimisation algorithm, based on assets which we have sight over or deploying the client's version of what is an optimal allocation, based on their entire asset universe and unique, ever-changing binding constraints," says Julie-Anne Atkins, executive director, platform sales, at J.P. Morgan.

Proliferation

Coverage under UMR has amplified the complexity of meeting demands in more and more places.

"Unlike variation margin, initial margin collateral must be segregated, meaning separate custody accounts at third parties, increasing complexity. Added to that, collateral for initial margin is posted in securities not cash, meaning firms must deal with haircuts, eligibility rules, concentration rules and wrong way risk checks. Collateral management is set to become much tougher still," says Trevor Negus, senior product Manager, TLM collateral management at Smartstream Technologies.

He says that smaller companies now coming in scope face challenges peculiar to their distinct business models.

"The don't have big risk infrastructures, they don't have large back office strategies or groups of lawyers to implement them. There is a whole new education around risk taking place. The must ask: 'how can I use the new data I have to achieve reconciliation and limit delays and achieve settlement with the custodian," he says.

UMR blessing?

In the light of volatility in the spring the operational improvements heralded by UMR appear something of a blessing.

"UMRs were meant simply to make clearing more transparent. How to do this was left up to the industry, which created standards and solutions whose usefulness the Covid volatility further proved," says John Pucciarelli, head of industry and regulatory strategy at AcadiaSoft.

They have added a dimension to the question of whether and where to use triparty services,

MEASURING THE COST OF CLEARED VERSUS UNCLEARED TRADES, WHICH IS MORE NUANCED THAN SIMPLY CALCULATING WHICH CLEARING VENUES OFFERS THE LOWEST PRICE.

underlining the benefits accruing through the upstream range of collateral management solutions triparty providers can release to calculate and effect margin calls.

"Certainly, triparty already worked for the earlier stages of UMR, but under phase 5 and 6, firms need scale for it to make sense," says Katie Emerson, head of agency lending and collateral management sales, EMEA, J.P. Morgan. "For those with complex fund structures in Europe it may be cumbersome to set up; for firms with smaller legal entities with big balances it works better," she says, highlighting a pilot the bank is running with a custody client to see what value it might add. "We want to see how you can ensure you're not putting assets in a triparty account that have better value in the lending market."

Measured progress

Despite the challenges, several years into liquidity and capital adequacy regulations, sell side firms are making progress with a more sophisticated approach to optimisation.

"There has been a shift towards a more measured approach focussed on the contribution to the wider business," says Kadikar of Transcend. "With regulations now in the rear view mirror, rather than dead ahead, participants are focussing less on a rush for compliance and more on increasing profits and cutting costs."

"Regardless of what stage of the process you are at, a clear view of your obligations – across triparty, repo, bilateral financing, CCP, and under UMR – is vital," says Marcoullier.

"You have to see them in a holistic manner if you are to meet them as best you can. That means having an aggregated view of the analysis, inventory, obligations, eligibility schedules and CCP requirements. A common infrastructure allows you to look at all these tentacles and make decisions that best suit that holistic view." ■


check out our solution finder and put the *flow* back into your trade flow
Find your solution at **https://info.euromoneytradedata.com/solutionfinder-GIG**
EUROMONEY TRADEDATA
Making data work for you
sales@euromoneytradedata.com
+44 (0)1277 633777
www.euromoneytradedata.com