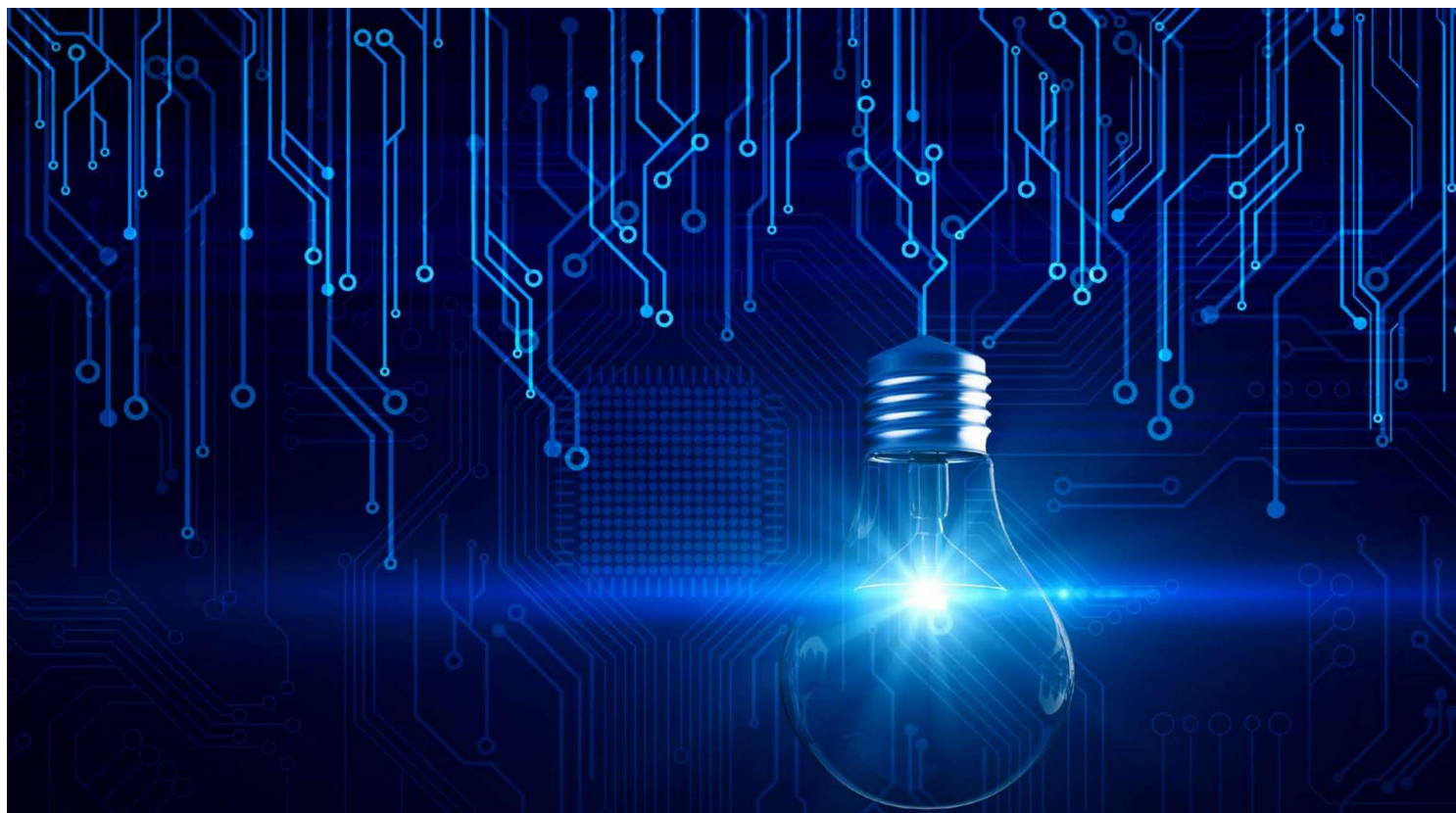




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- ✓ Agility and scalability to comply with changing industry standards and grow your business
- ✓ Award winning software, expertise and service from the market leading collateral management system



Collateral management: Solutions for the next generation

Industry experts address the priorities facing collateral managers during 2022 and beyond, reflecting on collateral flexibility, technology, ESG and regulatory drivers

Panellists

Staffan Ahlner, global head of Collateral+, **State Street**

Ted Allen, director of business development, securities finance and collateral, **FIS**

Mike Cardieri Jr, head of agency securities finance, corporate and investment bank, **J.P. Morgan**

Wassel Dammak, director, collateral management product, **VERMEG**

Martin Walker, head of product management SFCM, **Broadridge**

For several decades, the industry has been tackling fragmentation of collateral across product silos and geographical locations. How advanced is the industry in its ability to provide centralised collateral management and enterprise-wide optimisation of the collateral inventory?

And where do primary points of inefficiency remain?

Staffan Ahlner: The industry has moved to centralised resource management and some firms have progressed further than others. There is, however, still room for improvement. Some firms continue to have challenges with harmonisation of real-time data across desks, divisions and entities. It is also interesting to see the difference between the buy side and the sell side. The integration comes more naturally on the buy side, although they manage to a different set of criteria.

We do see more buy-side firms establishing collateral and liquidity centres on the buy side. Buy-side firms tend to be more regional than those on the sell side, so this presents a lesser challenge when compared to sell-side firms that have run global organisations for a long time. Some firms do still struggle with basic metrics to define opportunity cost and where to deploy scarce resources most effectively — be that capital, assets, opportunity cost or liquidity. The optimisation challenge depends on how a firm defines their optimal outcome — which differs between organisations — as well as the tools, resources and expertise available to execute on their strategy.

Ted Allen: Many firms still operate in multiple silos and, of course, each entity and each desk is motivated to maximise their own return on assets. But what is best for one desk is not always best for the firm as a whole. The consequences of not centralising the sources and uses of inventory are that costs of collateral are higher, securities finance returns are lower and balance sheet costs may be greater.

The first place to start is with gathering the inventory, enabling you to answer a set of simple questions. What assets do I have available to me at this time across the whole firm that could be deployed? Where are these assets and when can they be moved? How long do I have these assets for? Where are they eligible to be used and what will they be worth? Real-time global inventory management and collateral optimisation are two sides of the same coin.

Wassel Dammak: We have seen that collateral management consolidation is one of the major drivers for allocating budgets to

collateral technology over the last few years. That trend will continue to accelerate as financial institutions look strategically to collateral management across multiple trading business lines, whether financial institutions are acting as 'principal' or 'agent' in their trading activities. Building the business cases is both difficult and urgent because it involves multiple departments: Risk, Operations, Front Office and Treasury in certain cases. Reaching a consensus is not easy — especially because, historically, those business lines were managed in silo with different people, processes and technologies.

Collateral optimisation is a more complex topic because there may be mismatches in the objectives that departments are looking to achieve. Operations are generally interested in the optimal collateral from a cost perspective — for example, the cheapest to deliver. Treasurers are more concerned with preserving high quality liquid assets to control their liquidity metrics, while trading desks are tempted to keep the assets that could generate highest revenues.

Many banks have mandated SMEs to study the feasibility of a centralised optimisation service. One of the major difficulties they have to tackle is the fragmentation of inventories and a lack of transparency when it comes to establishing a global view of the assets across business lines. They have also struggled with the cost-benefit analysis to prove that the investment is worth it. In many cases, firms opted to retain excel sheets because they could not justify the funding for a project deemed to be 'non-urgent' — and ultimately the project was postponed.

Mike Cardieri: There has been considerable focus on this concept across the industry for many years. This has centred specifically on sell-side firms centralising functions internally, as well as service providers partnering with those firms to support their collateral centralisation and optimisation journeys. J.P. Morgan, as a tri-party agent, has seen many of our clients making organisational changes to centralise functions across their firm and they have also implemented technology solutions to consolidate, provide an integrated view across their collateral holdings, and to optimise how this collateral is posted. Though we have seen a tremendous focus on this front, we believe this is a continuous journey given that optimisation of collateral goes beyond the centralisation or consolidation of inventory and obligations.

There is still work to do as an industry. While seamlessly mobilising collateral is a critical component of optimisation, it can be challenging from a practical perspective. This requires involvement from the various players in the collateral management ecosystem, not just

the counterparties posting and receiving collateral. For example, as a tri-party agent, J.P. Morgan is focusing on the convergence of the capabilities of tri-party such as eligibility testing and collateral optimisation with bilateral market settlement functionality.

In 2021, our Collateral Services group developed such a solution and this is now actively delivering efficiencies for sizeable initial margin (IM) requirements at a major CCP. This allows the broker-dealer to consolidate collateral inventory in a single location using the tri-party engine to allocate in the tri-party books itself — and then systematically to deliver the collateral bilaterally when that is required outside of the tri-party ecosystem.

Martin Walker: The industry is fairly mature, with vendor solutions available which are sophisticated enough to cope with multi-jurisdictional and siloed organisations.

Consolidating real-time inventory, pricing and settlement information on cash, bonds and equities across multiple systems and time zones is an essential first step. SFCM has Real-time Global Inventory Management at its core. Initial and variation margin requirements must either be calculated or imported. Credit support annex (CSA) requirements, eligibility rules, concentration limits and haircut requirements must also be integrated. As these requirements are common for all clients, they are also well defined.

However, as client collateral optimisation goals vary (i.e. to minimise funding costs, maximise cash balances, reduce balance sheet risk) fintech solutions must include flexibility for defining the algorithm applied, defining best to worst, substitution rules, and so on. SFCM's Collateral Optimizer was designed with these needs in mind.



“We have a lot to learn from the retail industry. As private individuals, we expect to have the ability to trade, settle and safekeep in one application, but for some reasons we accept the fragmentation when we look at the institutional side”

Staffan Ahlner, global head of Collateral+, State Street

Moving collateral from point to point has always been a costly and inefficient process. Recent developments in the distributed ledger technology (DLT) space are attempting to address this by tokenising and therefore immobilising collateral, which in theory should save on time and costs.

What trends have you noted over the past 12 months in terms of the collateral that lenders will accept against their securities lending activity?

Cardieri: Over the past 12 months, we have observed two key trends in this space. The first has been that, in certain markets, trades versus cash collateral outpaced non-cash collateral trades. This reversed a long-term trend of growth in non-cash collateral trades.

Another trend evident in 2021 was the willingness of lenders to look at opportunities to broaden their collateral set. In an oversupplied market with no limits in demand, collateral flexibility is key to utilise assets. Regulations introduced post-financial crisis, such as Basel III and the introduction of the Supplementary Leverage Ratio (SLR), Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), have placed counterparty balance sheets under greater pressure, and under increased scrutiny, through tougher restrictions on capital, leverage and liquidity.

This has resulted in scarcer balance sheet resources being allocated internally to counterparties, causing them to place greater focus on balance sheet optimisation and driving interest from counterparties to un-trap and fund a widening range of non-cash assets. Borrowers are constrained by their balance sheets and need to optimise borrows to reduce costs and grow. Collateral flexibility allows the lender to take

advantage of the changing needs of borrowers. This can increase utilisation and ultimately generate additional lending revenue.

Ahlner: Non cash remains the focus, a trend that reflects current spreads and returns on cash reinvestment when balanced against the associated risk. However, cash remains the main vehicle for derivatives margin calls. Moreover, for some users the operational advantages outweigh the risk and yield disadvantages of accepting cash collateral, given their current technology.

And in use of pledge-based collateralisation of securities lending transactions versus title-transfer?

Ahlner: The use of pledge for securities lending offers interesting opportunities, notwithstanding the challenges for some firms in perfecting use of pledge in some jurisdictions. It is important for lenders to ensure full perfection of the securities interest down to the underlying principals. In this context, it is useful to draw a parallel with the derivatives world and Uncleared Margin Rules (UMR) where pledge or transfer of securities interest is the norm.

Cardieri: From J.P. Morgan's standpoint, the pledge model is now seeing strong adoption in Europe and in APAC. Its success shows how the securities finance industry can successfully adapt to new regulatory challenges while preserving core client protections.

Pledge has been around for a long time, but became a major focus with UMR in 2016, where pledge, in the form of a tri-party Account Control Agreement (ACA), has been widely adopted across the industry for the posting of initial margin. From a securities lending perspective, pledge

has been a feature of US activity for some time, but internationally we worked with the International Securities Lending Association (ISLA) in 2018 to develop the Global Master Securities Lending Agreement (GMSLA) Pledge principal agreement and associated tri-party ACA. We have seen a steady growth in uptake for this solution subsequently.

On balance, pledge is certainly growing in popularity. We currently see growth at 80 per cent across the programme and we expect this to increase as the number of conversations between providers and receivers accelerates and pledge becomes more business as usual.

Walker: We have seen modest interest in pledge collateral. We think it is inevitable that pledge will gain a permanent foothold in the market, but just how large that foothold is remains to be seen.

Where will you target technology investment during 2022 to deliver the greatest benefit in collateral mobilisation and optimisation?

Cardieri: The J.P. Morgan Collateral Services business has been a focus area for technology investments, enabling the team to deliver our strategic objectives of asset mobilisation, collateral efficiency and integration, as well as enhancing the way we support the securities finance ecosystem.

The digital space is an important area that we continue to invest in, creating and driving innovative distributed ledger technology (DLT) solutions to deliver greater collateral mobility and optimisation. Improving tri-party interoperability has been a challenge in the market for years and, with the evolution of digital asset solutions, we are



“UMR will continue to be a major focus through to September. Eurosystem Collateral Management System (ECMS) is also becoming a factor for European banks and accelerating the adoption of centralised inventory management and automated optimisation”

Ted Allen, director of business development, securities finance and collateral, FIS

committed to ensuring that tri-party connectivity is multidimensional.

For example, our intraday repo product, which runs over the Onyx Digital Assets DLT network, has seen tremendous uptake in activity and interest since its launch. We are now actively extending this product for global clients, enabling overnight and term repos against a broader spectrum of eligible securities supported by J.P. Morgan's global tri-party platform. The development and adoption of this DLT product is a solid foundation for the future of collateral tokenisation. We believe collateral tokenisation of assets can mobilise collateral more efficiently in many cases — and optimise collateral which may have been trapped with traditional operating flows. In 2022, the financing and collateral world will see some revolutionary products delivered to market by J.P. Morgan and our partners.

Allen: We have just launched the FIS Global Inventory and Optimization Platform. It is a comprehensive, centralised tool that normalises and aggregates inventory, and collateral sources and uses, across the firm in real-time. You get a real-time view of your traded and settled inventory positions across silos, while providing the tools needed for collateral optimisation to make the best overall use of inventory across liquidity, lending and collateral requirements.

This is a cloud-native solution, so it is lightweight and is connected to custodians, tri-party agents, CCPs and all the necessary collateral market infrastructure. It effectively sits on top of existing infrastructure, making it easy to connect silos without having to do a wholesale replacement of your existing securities finance and collateral systems and processes. We have made this quick and cost-effective to deploy and simple to configure.



“Low-touch collateral management is a reality today at many financial institutions, especially in the sell-side community. The extensive use of APIs to integrate with the wider collateral ecosystem helped in automating the end-to-end life cycle from trade receipt, to margin agreement, to the final settlement of the margin calls”

Ahlner: For a trading desk, there is now a range of options available in the market to optimise and manage collateral. We are focusing our effort on bringing new participants to the market, new participants that are not served as well by the existing offering. This includes participants that need a higher degree of automation and outsourcing, participants that require services across the three collateral silos utilising bilateral and tri-party settlement.

Dammak: As a specialised software vendor, we invest heavily in our collateral solution COLLINE. The investments that we have made to help comply with UMR are already behind us, but there are still areas for improvement. Adopting standards around data interoperability is key for the industry. We are onboarding Common Domain Model (CDM) digital representations of legal agreements and eligible collateral schedules for a seamless integration with the wider collateral ecosystem.

Another priority is the need to provide extensive flexibility in the rules managing collateral eligibility, haircuts and concentration limits. This is required to cater for the increasing complexity of collateral eligibility schedules that have accompanied the rise in use of securities under UMR regulations.

How much progress has the industry made in establishing a high-STP, low-touch collateral environment? What are the next steps forward in promoting front-to-back automation across the lifecycle of a collateralised transaction?

Allen: Our securities finance and collateral platforms already provide unprecedented automation levels for trading, inventory, analytics, optimisation, risk management and collateral management. Greater

Wassel Dammak, director, collateral management product, VERMEG

connectivity and widespread adoption of the CDM will further the possibilities for automation across the lifecycle of the trade.

AI offers potential for further performance enhancements. AI technology acts on the variables given to it, assesses the outcomes against set parameters and then adjusts subsequent decisions to improve its performance against those same parameters. For example, in trade automation, AI may consider not only factors such as cost to borrow and capital requirements, but also counterparty or sector behavioural patterns to determine the most economic trade to put on. FIS is working on solutions to bring these influences together in an integrated platform, driving automation of trading decisions, which weigh up all the point-in-time influences, assessing and reviewing the outcomes to improve the results of the next decision.

Combining AI with automated, connected systems enables the best economic outcomes and uses these results to adapt as the market changes.

Ahner: As an institutional industry, we still have some distance to go. We have a lot to learn from the retail industry, which offers a range of integrated services. As private individuals, we expect to have the ability to trade, settle and safekeep in one application, but for some reasons we accept the fragmentation when we look at the institutional side. We spend a lot of time building front-to-back solutions, where we look to give optionality to the client for integrated pre-installed workflows.

Cardieri: The industry has made strides with a high-STP, low-touch collateral environment, with a combination of factors including the connectivity of Equilend's NGT and the use of tri-party accounts.



“Improving tri-party interoperability has been a challenge in the market for years and, with the evolution of digital asset solutions, we are committed to ensuring that tri-party connectivity is multidimensional”

Mike Cardieri Jr, head of agency securities finance, corporate and investment bank, J.P. Morgan

Targeted availability with offer rates has automated the majority of the general collateral and warm name trades, leaving traders to focus more on hard-to-borrow names. The use of tri-party accounts expands the approved collateral set of a lender and the increased utilisation of digital collateral schedules expedites that process.

Dammak: Low-touch collateral management is a reality today at many financial institutions, especially in the sell-side community. The extensive use of application programming interfaces (APIs) to integrate with the wider collateral ecosystem helped in automating the end-to-end life cycle from trade receipt, to margin agreement, to the final settlement of the margin calls. All the processes happen in near real time if no exceptions are detected by the STP workflows.

There are still inefficiencies when it comes to smaller entities, particularly on the buy side. Certain processes like margin messaging are still manual and rely on the use of emails with heavy human intervention.

The next step is to aim towards no-touch collateral management, with auto-recovery tools that promptly handle exceptions whenever possible to resume the processing if the STP chain is broken. Such tools can leverage machine learning capabilities in certain cases and rely on natural-language programming whenever possible. This should be coupled with strong monitoring tools, on both the technical and business side, to control the overall activities.

As buy-side firms apply ESG overlays to their investment strategies, are you experiencing rising demand from collateral takers to apply ESG-screening to accepted collateral?

Cardieri: Focusing on asset owners, they are increasingly aligning their eligible collateral with their funds' overall ESG objectives, given that the lender receives full legal title to the collateral for the duration of a title transfer loan. However, collateral eligibility criteria should be considered carefully to balance the need to receive highly-rated ESG collateral with the need for highly liquid assets, especially given that the primary purpose of non-cash collateral is counterparty credit risk mitigation.

Generally speaking, the market is in the early stages of applying ESG-screening to accepted collateral, but there is an expectation that demand will grow significantly in the short term.

Walker: ESG acceptability and management is hamstrung by the proliferation of ESG vendors on the one hand and the lack of clear industry standards on the other. Agreement on what constitutes acceptability can only be achieved if both parties are singing from the same hymn sheet. We really need to make headway in data standardisation so that firms can come to a common agreement on ESG criteria.

What solutions are you developing to help clients to align their collateral management with their organisation-level ESG and sustainability objectives?

Walker: On the ESG front, Broadridge continues to develop enhancements to the recalls process to make it more data driven and supportive of the governance aspect of ESG.

We are also investigating the modelling of ESG-based collateral eligibility checks in our SFCM system.

Cardieri: Adaptable solutions are available within the J.P. Morgan lending programme and tri-party offering to provide a multi-level approach to clients when defining their eligibility criteria for non-cash collateral.

Within the lending programme, clients are offered three levels of eligibility restrictions: standard collateral schedules; bespoke ESG-style schedules; and schedules linked to specific ESG indices. This allows for maximum flexibility.

Within the tri-party programme, we have a variety of concentration limits and exclusion options that can be applied to enable bespoke ESG criteria to be set to client accounts and schedules. Additionally, we have built the capability for lenders to create eligibility schedules based upon underlying ESG indices and sectors — thereby helping these lenders to achieve their ESG objectives.

Allen: In early 2021, FIS made the strategic decision to develop the next generation, a cutting-edge platform to support the entire securities finance and collateral lifecycle tightly integrated into the market infrastructure. It was clear that the platform needed to be future-proof and one of the key trends was the growing adoption of ESG standards in securities finance and collateral.

To that end, we created a framework in which a firm's ESG parameters — along with those of their counterparties — can be configured directly into the trading, portfolio management, collateral management and optimisation rule sets. This includes trading and position analytics, limits and restrictions, as well as digitised collateral schedules that translate those parameters



“ESG acceptability and management is hamstrung by the proliferation of ESG vendors on the one hand and the lack of clear industry standards on the other. We really need to make headway in data standardisation so that firms can come to a common agreement on ESG criteria”

Martin Walker, head of product management SFCM, Broadridge

into an automated framework for securities finance and collateral programme compliance.

Ahlner: We are seeing a rising demand for ESG, with a strong driver from the underlying investor. We expect even stronger demand for ESG-compliant services in the future, as the retail investor will make ESG a more prominent factor in deciding where to invest. We are already benchmarking assets and giving ESG scores on portfolios — and we are investing more in ESG selection of collateral and governance.

Which regulatory drivers will have the greatest impact on collateral managers during 2022?

Allen: UMR will continue to be a major focus through to September. This will, of course, have a knock-on impact on repo and securities lending markets and drive further volumes to clearing. Eurosystem Collateral Management System (ECMS) is also becoming a factor for European banks and accelerating the adoption of centralised inventory management and automated optimisation.

Dammak: The regulatory framework will continue to evolve in coming years. During 2022, the need to be compliant with UMR wave 6 will require that an operational framework is in place to monitor the regulatory initial margin threshold and to be ready whenever there is a need to exchange initial margin.

Other regulations may also impact collateral departments operationally. For example, the CSDR regulation may impact collateral bookings settlement, requiring tighter management of processes including fails or partial settlements, especially given the increasing use of securities for collateralisation of regulatory IM under UMR regulations.

As the regulatory framework evolves, this will reinforce the need for effective management of the data. Collateral managers will be asked to normalise the data and to make it available in near real time for external and internal use, recognising that the data handled in collateral systems is vital for proactive counterparty risk management.

Cardieri: With the recent completion of the penultimate phase of UMR, the clock has been reset for the final phase in September 2022 — bringing over 700 entities into scope and impacting an increasing number of insurers, mutual funds, large pension and hedge funds

who may be the underlying beneficial owners of agent lenders. The challenges presented by Phase VI will benefit from the standardisation delivered in earlier phases.

Counterparties and service providers have refined their documentation and services since 2016, so it is important to engage with your service providers early. In-scope participants must be ready to prioritise between active collateral arrangements with counterparties needed for day one and counterparties where a monitoring approach may be more appropriate.

We have the solutions in place to serve as our clients' collateral partner for UMR, providing threshold monitoring, pre-trade analytics, IM sensitivity creation, collateral processing and dispute resolution in a complete UMR package. In addition, we can assist through workshops, helping clients to understand each of the key milestones and steps needed to be ready on time.

Walker: Regulation is a key part of our 2022 roadmap across the full Securities Finance and Collateral Management solution. There are three regulatory drivers that we have identified as key for the collateral product and we will be working towards these dates with our clients. These are the Securities Financing Transactions Regulation (SFTR ISO Changes for January 2022), the Central Securities Depositories Regulation (CSDR) fines and penalty regime that went live in February 2022, and UMR Phase 6 for September 2022.

With respect to UMR, we see a lot of impact here, particularly for smaller institutions whose operations can be very manual and they do not have the technology in place to manage these regulations effectively. Consequently, it can be challenging — whether it is in data gathering, managing settlements, legal contracts and building connectivity to market utilities — to meet compliance requirements and to deliver this in a cost-effective way. Smaller firms that fall into scope for UMR Phase 6 will be heavily dependent on vendors to provide accurate calculations that match with their counterparties.

Ahlner: Given State Street's client base, 2022 will be dominated by the UMR regulation. We also expect attention to risk-weighted assets and capital requirements to take over the latter part of the year, where collateral and counterpart adjustments will be needed to support sustained trading activity. ■