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Technology innovation remains fundamental to generating competitive advantage in financial services, applying large and varied data sets to deliver trading insights, to mitigate risk and to support performance benchmarking and attribution. Advances in technology remain central to providing high standards of customer service and to maximising risk-adjusted return delivered to clients and investment partners.

For the new entrants, the challenge is to grow from proof-of-concept to live implementation, grabbing market share and scaling the business without loss of the agility and creativity that is the lifeblood of most start-ups. For established firms, the challenge is commonly to upgrade their legacy systems while keeping the enterprise moving, integrating new modules into their technology ecosystem that will deliver the performance improvements and stakeholder value that we have outlined above.

EquiLend's Emily Hollyoak notes that systems that are now considered to be legacy were once at the forefront of technology, but were rarely designed with future-proofing in mind. She highlights the value of delivering a suite of networked products that spans the full trade lifecycle, offering modular solutions that can function independently from proprietary or competitor systems and that are ready to accommodate major industry transitions like the planned move to T+1 cash equity settlement in the US and Canada.

Recent market stress, coupled with a constantly evolving regulatory environment, has reinforced the importance of leading-edge collateral and liquidity management capabilities. This is key for monitoring credit risk exposure, for providing early indication of counterparty stress and for optimising collateral inventories during periods of high market volatility.

FinOptSys' Divyesh Bhakta and Alfredo Hernandez reflect on advances in collateral optimisation, noting that collateral that is not deployed to generate income through collateral transformation and allocation opportunities represents a true opportunity cost to the institution.

For Cassini Systems' Thomas Griffiths, the real value of liquidity analysis comes from constructing a holistic view of assets and liabilities and how these interact in extreme market scenarios. Liquidity managers must maintain adequate liquidity buffers across their organisation during stress events, taking into account all relevant stress factors — for example, simulating the timing mismatch between outflows and liquidity-raising capabilities.

Building on some of these themes, Broadridge's Mike Lambert reflects on questions of 'fairness' in securities lending transactions and how these impact the fiduciary responsibilities of lending agents and their use of algorithms in meeting best execution and fair allocation commitments.

S&P Cappitech's Jonathan Tsang reminds us that industry efforts to standardise critical data elements and to promote common reporting standards remain an essential complement to technology investment, eliminating data ambiguity, improving data comparability, while easing the burden for the reporting party.

We thank our publishing partners for their perceptive observations on the securities finance technology landscape and for the sponsorship and support that makes this 2023 Technology Annual possible.

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Powering progress in financial institutions

The systems that are now considered to be legacy were once at the forefront of technology, but were not designed with future-proofing in mind, says Emily Hollyoake, head of client relationship management EMEA at EquiLend, who discusses the importance of an interconnected ecosystem

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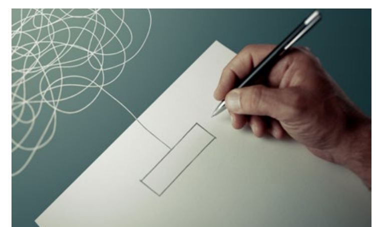

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In today's fast-paced and evolving financial industry, technological advancements are crucial for streamlining processes and complying with regulatory obligations. Comyno COO Frank Becker explores the firm's securities finance solution

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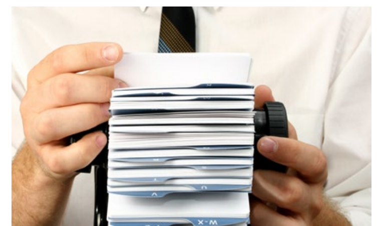

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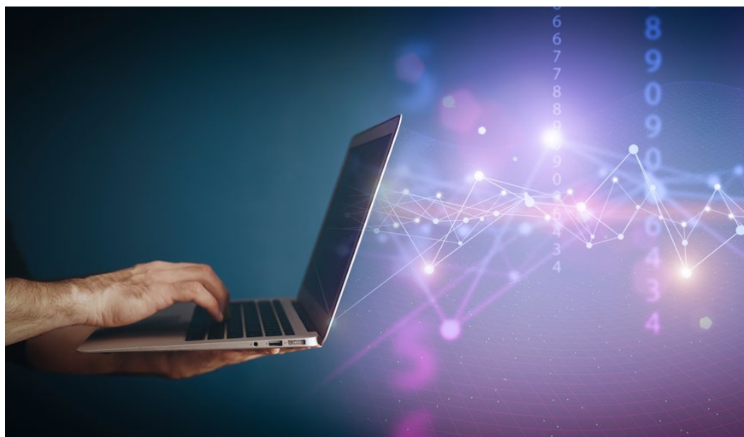

Ocean Partners deploys Cassini analytics

Metals trading firm Ocean Partners has completed the deployment of Cassini Systems' technology to support margin management for its derivatives trading activity.

Cassini indicates that its platform will help Ocean Partners to manage and conduct initial margin (IM) and variation margin (VM) analysis, enabling the metals trader to optimise funds used for margin on its derivatives transactions globally.

According to pre- and post-trade margin and collateral analytics provider Cassini Systems, capital market firms that are trading derivatives are impacted by the increasing cost of carry, liquidity risk and regulatory demands.

Therefore, the firm has created the front-to-back solution where trading portfolios, collateral and operational data are combined with risk and optimisation models to minimise the collateral impact on portfolios and enable transparency on the all-in costs of trading.

Deanna Pittore, vice president at Ocean Partners, says: "Cassini has provided us with an innovative offering that will enhance our ability to make trading decisions through new insights into the total cost of a potential trade, from the pre-trade stage through to full trade close-out.

"These analytics, along with a portfolio margin optimisation module, will enable us to manage, optimise and reduce IM and VM and our overall cost of derivatives trading."

Samuel Hyman, Cassini's head of Americas, adds: "We are excited to work with Ocean Partners on meeting the firm's needs by supplying them with margin analytics that gives their traders a valuable new tool.

"As increasing regulation and market volatility continue to reshape the derivatives landscape, including significant spikes in margin requirements, Ocean Partners now have the tools and foreknowledge to optimise margin requirements in today's ever-changing markets."

Citi goes live with Nordnet on its Securities Lending Access platform

Citi has confirmed Nordnet as its first Swedish client on its Citi Securities Lending Access platform.

This solution brings together Citi's lending platform with Sharegain technology to support securities lending that is crafted to the requirements of underlying individual investors as well as traditional lenders.

Citi describes this as an end-to-end solution that digitises and automates the full securities lending transaction lifecycle. Co-sponsored by Citi Ventures' D10X programme, this aims to democratise securities lending by extending access to a wider community of investors through their existing banks, brokers or financial advisers.

Through this service, Nordnet, the pan-Nordic online broker and digital investment platform, expects to widen its securities lending programme to new client segments and markets.

Citi Agency Securities Lending offers lending activities in 75 markets, supported by trading desks in five countries and on-the-ground custody expertise from more than 60 proprietary custody branches worldwide.

Commenting on its securities lending solution, Citi's global head of securities services Okan Pekin says: "Citi continues to embrace

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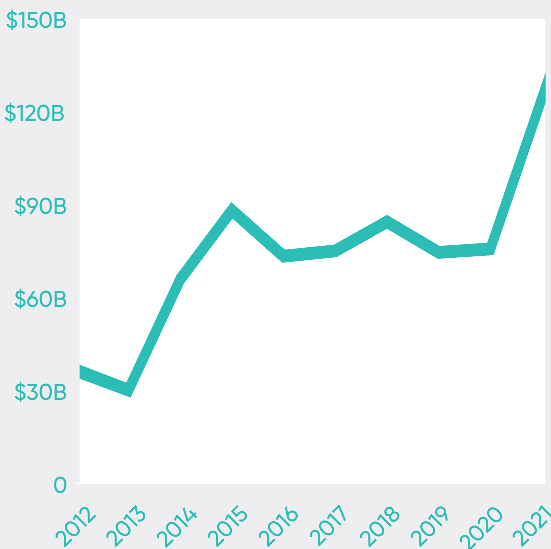

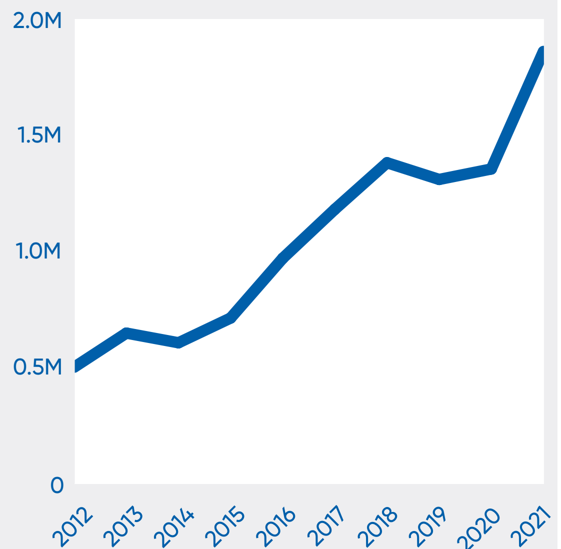

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innovative ideas to deliver new services to our clients. By levelling the playing field, we anticipate this solution will help pave the way for future democratisation of securities lending."

Quincy Curry, director of securities brokerage at Nordnet, says: "Nordnet was one of the first online brokers in Sweden and has since expanded into a pan-Nordic leading digital platform for savings and investments. We are proud to add this collaborative initiative to our ever-growing list of market innovations for our customers."

FinOptSys completes first tranche of Series A funding round with backing from State Street

FinOptSys has completed a Series A funding round with backing from State Street.

The New Jersey-based provider of enterprise-wide software-as-a-service solutions indicates that it will be using the fundraising to expand its global team and to extend the range of traditional and non-traditional assets supported through its peer-to-peer (P2P) network services.

Using artificial intelligence to drive decision-making, patent-pending analytics and P2P negotiations, FinOptSys also intends to add further technology innovation to its current suite of modules.

Formed in 2019, the company says that it is the first platform to support all securities financing products across all asset classes and client segments. This includes providing legal document and collateral schedule negotiation and digitisation, along with frictionless trade negotiation with clients, counterparties and peers.

FinOptSys founder and CEO Divyesh Bhakta says: "Rather than being reactive, our technology will empower firms to manage their financial resources proactively with increased optionality. This seamless access to new sources of liquidity will reduce costs, increase yield and optimise asset utilisation, all done in a fully transparent manner."

"Our vision of AI analytics powering peer-to-peer will not only drive the future of the industry and empower our clients with the sophisticated tools necessary to thrive, but it will also help unlock trapped assets through an innovative indemnification marketplace."

Commenting on the funding round, State Street Global Markets head of financing solutions Gino Timperio says: "This represents a significant milestone in our relationship with FinOptSys. We believe this investment will further enable our organisation to deliver better results on behalf of buy-side clients in the peer-to-peer marketplace. We look forward to collaborating in the securities financing arena."

FinOptSys indicates that it has plans to extend its service capabilities outside of the securities financing segment. "Our innovations will not only revolutionise the securities financing industry, but they will also form the foundation of our ultimate vision to deliver greater market efficiency, connectivity, liquidity, revenue generation, risk management and transparency to the broader financial markets," says Bhakta.

Last week, FinOptSys entered into a strategic partnership with S&P Global Market Intelligence to help deliver securities financing market data and services, including an extended range of analytics tools.

FinOptSys forms partnership with S&P Global Market Intelligence

Cloud-based software-as-a-service platform FinOptSys has formed a strategic partnership with S&P Global Market Intelligence to help deliver securities financing market data and services, including an extended range of analytical tools.

By combining the two platforms, the firms say that this will lead to higher yields, lower costs and increased asset utilisation for clients.

Clients of FinOptSys and Securities Finance at S&P Global Market Intelligence will be able to access greater transparency in the equity and fixed-income securities financing business, says FinOptSys.

Powered by S&P Global Market Intelligence, Securities Finance is a global dataset of securities financing market analytics that aims to provide transparency into demand, supply, and borrow and loan fees across equities and fixed income. FinOptSys says that it offers a securities financing solution that is "fully customisable and modular

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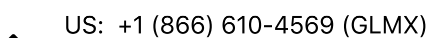

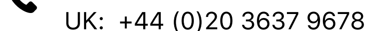

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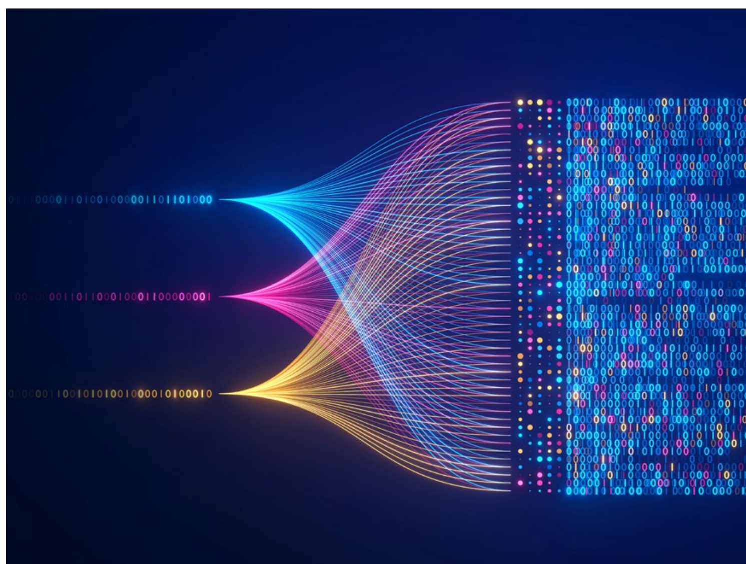

DTCC extends alliance with Snowflake

The Depository Trust and Clearing Corporation (DTCC) has announced a partnership with Snowflake to support data access and data sharing across selected DTCC services using the Snowflake Data Cloud.

Through this alliance, DTCC will employ Snowflake technology to boost data access, analytics and access controls across a range of applications, including risk management, institutional post-trade processing and regulatory reporting for derivatives and securities financing trades.

This builds on a service relationship that DTCC has had in place with Snowflake for a number of years. This includes collaboration around its DTCC Kinetics data solution, which provides market insight across multiple asset types, drawing on equity and fixed-income data products available through Snowflake Marketplace.

DTCC indicates that it will further extend its DTCC Kinetics data capabilities on Snowflake Marketplace in coming months to include ETFs, reference data and corporate actions.

DTCC's chief information officer, Lynn Bishop, comments: "We have been using Snowflake's platform since 2018 and view their data applications as an integral part of DTCC's modernisation strategy.

"This strategic initiative will enable us to further transform the data ecosystem, unlocking new insights and supporting greater transparency to protect markets, increase efficiency, drive business and propel the industry forward."

in nature", applying quantitative algorithms across all securities financing products and asset types to facilitate multi-factor, collateral and financial resource optimisation.

Utilising streamlined workflow, this solution allows users to access the securities financing market through a peer-to-peer (P2P) marketplace that provides point-to-point negotiation capabilities along with features including trade level indemnification, compliance, counterparty and collateral eligibility checks, as well as restricted list feeds.

DLT will bring major efficiencies to global derivatives markets, says Acuiti report

Distributed ledger technology (DLT) will bring significant efficiencies to global derivatives markets, a new report by Acuiti has found.

The report entitled "DLT in Derivatives: Crypto innovation, traditional technology and the market of tomorrow", looks at what the future holds for derivatives market structure, as innovations and processes developed in native crypto derivatives markets merge with traditional workflows.

Participants in the study predict that DLT will bring major efficiencies to trade settlement, trade reconciliation and custody.

In addition, respondents said the near real-time settlement and risk management, that are features of native crypto derivatives market

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structure, would be incorporated into traditional markets.

However, while DLT brings significant efficiencies in certain areas by providing a real-time single source of data for trade, it is not suitable for all processes, Acuiti highlights.

In addition, participants in the study affirm that certain functions of native crypto market structure, such as auto-deleveraging of positions and sell-side disintermediation of finance, would not become part of traditional market structure.

The report also analyses how the ambitions of crypto native exchanges in traditional markets will lead to an increasing adoption of traditional technology among these firms.

Currently, the preference for most native crypto exchanges has been to develop technology in-house or from crypto native third-party vendors, Acuiti says. However, as the survey finds, many native exchanges are seeking to expand their offerings into traditional asset classes and services such as securities lending and traditional custody.

Acuiti interviewed senior executives at 87 firms from across the crypto native and traditional derivatives market to carry out the report that was produced in partnership with ION.

Will Mitting, founder of Acuiti, says: "The two worlds of crypto-native and traditional finance are currently largely bifurcated, owing to a lack of regulatory clarity which prevents significant intermediation from traditional sell-side firms.

"This has forced native markets to innovate and develop new processes and workflows. While some of these innovations, such as harnessing the revolutionary potential of DLT, are likely to become key elements of market structure in traditional finance, the coming together of the two worlds will also see many elements of traditional market structure incorporated into native markets.

"This report explores how the development of regulatory frameworks for trading digital assets and adopting new workflows and market structure will bring the two market structures together to create new and common processes."

HSBC releases tokenisation platform for digital bonds

HSBC will launch its new proprietary tokenisation platform HSBC Orion, allowing financial institutions and corporates to issue digital bonds based on distributed ledger technology (DLT).

The European Investment Bank (EIB) is currently exploring the possibility of issuing the market's "first-ever" GBP tokenised bond, for registration and issuance under Luxembourg law, using HSBC Orion.

The platform leverages blockchain technology as a "single source of truth", whereby asset and settlement tokens sit natively and securely on the platform's ledger.

Transactions on HSBC Orion occur by exchanging these tokens, achieving digital delivery versus payment.

The London-based bank intends to expand the use of HSBC Orion to other locations and asset classes in due course.

Clearstream, LBBW and Vontobel complete first digital securities issuance in Germany

Clearstream has confirmed the creation of the first digital instruments on its D7 digital post-trade platform.

European issuers can now utilise the D7 infrastructure to issue digital securities, with LBBW and Vontobel conducting the first automated issuances in a process facilitated by Clearstream.

This announcement follows news, reported in SFT on 16 September, that the Deutsche Börse-owned company had completed successful tests with a group of pilot customers and is now ready to generate digital financial instruments in production.

With this development, Clearstream expects to provide a fully digital alternative to conventional physical issuance for approximately 80 per cent of German securities.

The scope of the D7 platform includes warrants and certificates, with additional asset classes and jurisdictions planned in line with future regulatory approvals.

Clearstream's head of issuer services and new digital markets, Jens Hachmeister, says: "In line with our core mission to run innovative and future-proof

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infrastructures for our customers and the entire industry, we have now created the smart digital security. This moves issuance of structured products from days to minutes and enables our clients and partners to quickly adapt to the changing market environment.

"We are accelerating time to market and unlocking an entire new universe of product opportunities as we continue to venture towards fully digitised markets. In addition to a highly automated trading process, a digitalised and efficient issuance and settlement process is of great importance for the retail-certificate business."

Jan Krüger, head of equity markets at LBBW, adds: "With the first pilot issue of an LBBW bonus certificate via the D7 platform, accompanied by Clearstream, we are taking the next technologically important step towards end-to-end digitalisation."

Markus Schenk, Vontobel's head issuance for Europe, Vontobel, comments: "The launch of the Digital Instrument represents a milestone on the way to a fully digital market infrastructure in Germany. The ability to bring our structured securities to market faster and more cost-efficiently in the future will ultimately have a positive impact on the client experience."

Deutsche Börse explains that, historically, German securities had to be issued as paper-based global notes and stored in a physical vault at the central securities depository, which usually took several days.

During 2021, the German regulator passed the electronic securities act, allowing dematerialised issuance and laying the ground for automation across securities lifecycle.

Deutsche Börse has been processing dematerialised securities via a central register since December 2021, its first live D7 component.

Provable Markets facilitates first transaction on DTCC's SFT Clearing Service

Provable Markets has confirmed the completion of the first securities lending transaction cleared through the Depository Trust and Clearing Corporation's (DTCC's) new Securities Finance Transaction (SFT) Clearing Service.

The trade was executed through the firm's SEC registered alternative trading system (ATS) Aurora and centrally cleared and settled via the SFT Clearing Service on 6 October.

Provable Market's connectivity and integration from the FIS Securities Lending Processing Platform was leveraged to ensure that the positions were accurately reflected in Loanet Books & Records systems for the lender and borrower, in near-real time.

According to Provable Markets, Aurora is one of two Approved SFT Submitters for the DTCC's new service, and the only regulated access point.

Aurora provides a full suite of functionality for users — from traditional workflows to order book style functionality — and aims to bring central order book style trading to the securities lending market.

DTCC announced today that its subsidiary, the National Securities Clearing Corporation (NSCC), went live with the new Clearing Service. This service supports the central clearing of SFTs between NSCC full-service members, as well as the central clearing of clients' SFTs intermediated by sponsoring members or agent clearing members.

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Mike Lambert
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The fairest of them all

Best execution and fair allocation are inextricably bound in the business of securities lending. Mike Lambert, head of securities lending product, Securities Finance and Collateral Management at Broadridge, explores the challenges of algorithms and the fiduciary responsibilities of lending agents

When it comes to securities lending there is a perennial question — "Is it fair?".

"Is what fair?", I hear you ask.

Let's talk about fair algorithms and just how fair the securities lending business really is. In the agency securities lending world, agents have many fiduciary responsibilities to their underlying clients, be they UCITS funds, family offices or retail clients. These responsibilities encompass many areas outside of the scope of this article, so for the benefit of clarity we will focus on just two of the responsibilities — best execution and fair allocation.

These two concepts are inextricably bound in the business of securities lending, so we cannot talk about one without addressing the other. Before discussing the main topic, it is important to define best execution and fair allocation.

Best execution

"'Best execution' means that, when firms execute client orders, they must take all reasonable steps to deliver the best possible result for their clients, taking into account a variety of factors, such as the price of the financial instrument, speed of execution of the order and cost. For retail clients, 'best possible' means the most favourable result in terms of the price of the instrument and the costs associated with the execution."

The above is just one of many definitions of best execution from various European Securities and Markets Authority (ESMA) sources, but there are also legal opinions and a number of different perspectives from members of the International Securities Lending Association (ISLA) and the International Capital Market Association (ICMA).

Fair allocation

With an agency lending trade there are two parties, we have the "street" party, which is the borrower — this could be a prime broker, principal borrower or other sell-side party — and the "internal" party, which is the agent's internal client — this could be a pension fund, UCITS or any buy-side entity. For example, a generic agency trade.

QTY	Security	Internal Party	QTY	Security	Street Party
10,000	IBM	FUND1			
10,000	IBM	FUND2			
10,000	IBM	FUND3			
			30,000	IBM	STREETCPTY1

In the above example, there are three funds lending an aggregate quantity of 30,000 to "STREETCPTY1".

Borrowers do not want to have piecemeal trades with small quantities, which is why agent lenders aggregate their availability so that they can complete the order in one hit.

The agent lender could have thousands of possible internal clients to select from to fill the trade. The question is — which internal clients should they select for the trade? This is the essence of fair allocation.

There is more than one way to skin the proverbial cat, as is the case with fair allocation. The models that are currently used within the industry can be broken down into variations of several models.

In the *equal-allocation model,* every internal party gets allocated an equal portion of the trade regardless of the size of parties holding. Although seemingly fair, the downside to this model is the sheer volume of internal allocations that it can generate. It is conceivable to have hundreds, if not thousands, of allocations for a single trade. This can prove expensive for the agent, as each allocation potentially has an associated settlement cost — which can be passed on to the internal client in the form of charges.

A further downside is that the more parties you have on a trade, the more likely it is that firms will have to do a daily reallocation, as the odds are higher, some of the parties that have lent out their shares will have sold them and will need to recall the shares to fulfil the sale. Those parties' allocation will have to be replaced with shares from another party, otherwise the trade will have to be partially recalled. This issue is not limited to just this allocation model, it applies to any method that creates a large number of allocations.

For the *equal-allocation model,* the required quantity is equally split among clients with availability.

Requirement	30,000		Expected Allocation
Internal Party	**Position**	**Security**	
FUND1	10,000	IBM	10,000
FUND2	10,000	IBM	10,000
FUND3	10,000	IBM	10,000
			30,000
Total Availability	**30,000**		

For the *size-weighted model,* the required quantity allocated to parties with availability is proportional to their availability. So the larger their holding (availability), the larger their contribution to the trade. The downside here is that parties with small holdings will be constantly overlooked by the algorithm as it strives to meet the required quantity in the most efficient manner (i.e. smallest number of shapes).

The required quantity allocated to a client with availability is proportional to their availability, in regards to the *size-weighted model.*

Requirement	30,000		Expected Allocation	Requirement as a % of Availability
Internal Party	**Position**	**Security**		
FUND1	5,000	IBM	5,000.00	17%
FUND2	10,000	IBM	10,000.00	33%
FUND3	15,000	IBM	15,000.00	50%
			30,000.00	
Total Availability	**30,000**			100%

The algorithmic model and its variants rely on a "league table" of sorts. Versions of this algorithm are regarded as the "fairest" model. To put it simply, this model assigns negative points to "winners" — those parties who got to be selected for a trade — and positive points to "losers" — those parties who were not selected for a trade. Over time, the opportunities even out and every party who has a holding gets to participate in a trade.

The issues

Do we need to worry about Markets in Financial Instruments Directive (MiFID)? Is MiFID applicable to securities lending? The answer is yes. This topic has been debated many times. It seems that the jury is still out with many industry participants believing that it does, and many that it does not.

As a vendor, Broadridge has to cater for both sides of the argument, which in this case means we need to worry about it. By and large, the definition of best execution is mostly applicable to the cash equities market, but what about the

other attributes — are they relevant for securities lending? Or what about "Price"? If we take ESMA's statements literally, no it is probably not. But if you take price to mean rebate or fee rate, then yes. How about "speed of execution of the order and cost"? Speed, not so much. The Securities Financing Transactions Regulation (SFTR) constrains European parties to execute within an hour but, in this context, does it matter if a deal is struck in two, twenty or sixty minutes?

Surely what is more important from a securities lending perspective are the following factors?

- **Availability —** are the securities available for lending and is there sufficient quantity?
- **Trade type —** do I want to do a fee or rebate trade, or perhaps an evergreen?
- **Rate —** am I offered the best fee or rebate rate? It may not be so important for general collateral (GC) business, but it could be essential for specials.
- **Term —** the rate is linked to the term, different rates for open, seven-day and 30 day.
- **Collateral —** triparty or bilateral, and then at a deeper level, what schedule? For example, G10 government bonds or S&P500 equities? Having the right collateral schedule could have a significant impact on the rate you can achieve on a trade.
- **Relationship —** do I have an existing relationship with this party?
- **Credit or risk-weighted asset —** do I have a sufficient credit limit? What is the RWA bucket?
- **Dividend percentage —** what dividend percentage does the borrower need and the lender allow?

If you were going to have a best execution policy for securities lending, wouldn't the above attributes be the most relevant?

The algorithm

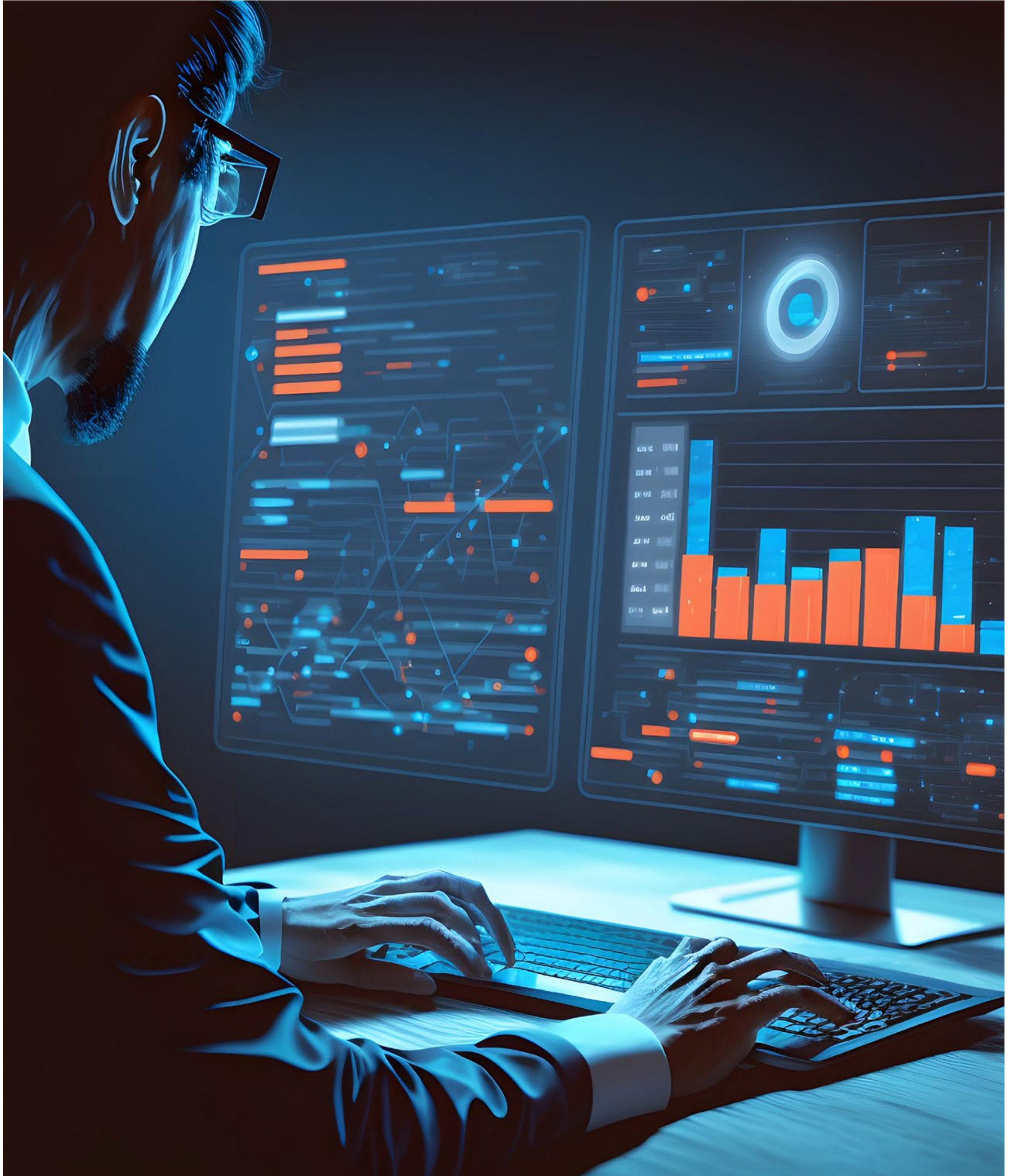
Algorithms really depend on calculating the relative fairness on a fixed set of attributes, but in the real world these attributes may not be at all fixed. There are a lot of 'what ifs'. For example, what if the borrower only accepts lenders with particular credit ratings? This could rule out whole groups of clients that do not have the requisite credit rating. Additionally, what if the borrower wants a specific term? That is a lot of permutations to build into an algorithm and the associated static data needed to support it — resulting in added complexity. Also, what if the borrowers and lenders have set their default dividend requirements but are flexible? Some lenders would be happy to give up something on the dividend if it was made up elsewhere on the trade.

The challenge with algorithms is that the more complex the algorithms become, the more difficult it is to ascertain what the outcome would be of any allocation. It essentially becomes a "black box" to the trader. It is challenging to build an all-encompassing algorithm that covers every scenario and use case. It is not really desirable or cost effective to try to do so. Where the algorithm fails to provide the best solution, the trader has to step in and override the algorithm.

One could say that as soon as the trader steps in and overrides the allocation, the process is no longer fair, but one could also say that if the trader had to step in then the algorithm failed to find the right match — and if the trader had not stepped in then the trade would have been lost. In this case, a different lender would have been selected as opposed to no lenders selected. What would have been fair about that?

There is no doubt that algorithms will evolve to support the securities lending business as it develops over time. We have to take care that those algorithms remain as fair as is practical, but we also have to be pragmatic as to what is achievable from a technological and human point of view.

A fair algorithmic allocation is the best solution when you have a simple to medium complexity business coupled with high volumes. However, if the business is concentrated on complex trades, then human beings making decisions is an effective and fair alternative. ■



Bridging traditional and synthetic finance

David Raccat, Wematch co-founder and global head of securities finance, speaks to Bob Currie about the advance of the company's cross-asset platform, digitisation of securities finance, and its ambition to be the number one TRS ecosystem worldwide

Wematch has been making big strides since its formation in 2017 by co-founder and CEO Joseph Seroussi, David Raccat, and CTO Elie Slama, with the goal of connecting market participants and driving the digitisation of the securities finance sector.

Subsequently, it has set about building a cross-asset platform, growing from its early roots in the financial incubator programme of its key investors — and a primary focus on the total return swap (TRS) market — to also offering optimised workflow and lifecycle management for interest rate derivatives, equity derivatives and delta one products, collateralised finance, and securities lending.

While the Wematch platform spent its early life predominantly supporting dealer-to-dealer (D2D) activity, it is also broadening its focus to deliver wider efficiency to the dealer-to-client (D2C) segment. It indicates that it has now onboarded close to 1000 traders and sales staff at 90 financial institutions onto the platform and is playing a prominent role in bridging traditional and digital finance.

Synthetics ecosystem

For Wematch, the primary objective is to be the global one-stop-shop for synthetic trading, and traditional lending, explains Raccat. Total return swaps occupy an important place in the securities financing ecosystem, with an expanding community of users recognising the flexibility, risk management and balance sheet advantages of synthetic lending. Dealers and investment bank clients remain Wematch's largest constituency of users, but a handful of agent lenders are currently looking to extend their coverage to synthetic lending. Wematch also supports buy-side institutions that are already involved in the TRS space and are interested in broadening their TRS franchise to a wider range of trading partners. "We aim to be the number one TRS platform on a global scale," explains Raccat.

To do so, it has been developing innovative workflow solutions that extend well beyond the trade matching element profiled in the company name. It offers an automated platform that helps dealers to issue indications of interest (IoIs) and conduct trade negotiation, to navigate collateral eligibility schedules, and ensure that trade details align with counterparties, thereby providing a sound foundation for high STP rates across the trade lifecycle.

Beyond this, Wematch offers a broad suite of workflow and optimisation tools which includes lifecycle management, market data and analytics, sales-to-trader workflow, an ETF optimiser and collateral optimisation.

To complete this vision of a full TRS lifecycle coverage, Raccat indicates that the company is soon to add two missing components which will be delivered during Q2. The first is cashflow reconciliation, enabling clients to reconcile funding and equity performances for each TRS contract at reset and at expiry. This is a significant pain point currently.

Second, Wematch will release a new module supporting TRS market data and pre- and post-trade analytics, thereby providing predictive insights that will help users to draw maximum value from their trading strategies. "Data in the TRS space has typically been a constraint," explains Raccat, "with few data vendors able to provide comprehensive and accurate data for this asset class. Given that a major share of TRS volumes are concentrated on Wematch's platform, particularly in EMEA, this sets us as an ideal candidate to work out the data and to redistribute on a smart basis to our community of users."

Indeed, Wematch now supports approximately US$150 billion of notional outstanding on its platform globally, a sharp increase from the US$20 billion it supported globally in July 2020. EMEA continues to account for a large share of this global activity, representing US$116 billion in ongoing notional at the time of writing.

Since launching in the US two years ago, Wematch has seen ongoing notional grow in this location to US$25 billion. The company also relaunched its services in the Asia-Pacific region in January, following a hiatus during Covid, and is on its way to hitting the US$10 billion mark in ongoing notional from the APAC region.

Wematch offers integrated workflow across the trade lifecycle, but indicates that it is agnostic to where the

trade is negotiated, whether on Wematch's platform or elsewhere. "This is an important component of Wematch's offer," says Raccat. The focus has been on developing an open architecture workflow, enabling the user to import trade data into the system wherever the trade has been printed.

> *"Prime brokers will direct a rising percentage of their current physical borrowing towards synthetic and the first agent lenders that establish an agency TRS product are likely to attract significant volumes"*

"As a solutions vendor, we do not feel we should be telling traders how they should access liquidity, when that is their job and their core expertise," adds Raccat. "Regardless of how the client negotiates and executes the trade, when the trade details are uploaded to Wematch's platform we can then support the downstream workflow and offer a full set of solutions to deliver efficiency across the trade lifecycle. This is changing our relationship with the user."

Bridging traditional and synthetic

In earlier discussion, we have already identified a potential blurring of the lines between synthetic and traditional lending. Wematch recognises this as a technical challenge, but also as a commercial opportunity for the company and the community that it supports.

Prime broker firms are constantly seeking ways to reduce the regulatory capital impact of their trading and financing strategies and are liaising with their counterparts on the lending side to identify whether they can shift some of the balance from physical to synthetic lending, reducing risk-weighted assets and managing their balance sheets more efficiently.

Agency lenders are also reviewing the potential benefits of adding synthetic lending to their lending capability. "As a synthetic lending platform, we have had discussions with a number of agent lenders that are evaluating agency TRS-based solutions and exploring whether they can draw on the technology that we have developed over the past five years to help them to develop their solution," says Raccat.

These are typically large and well-established agency lending businesses that will take time to adapt to synthetic lending alongside their established physical-lending expertise. But Raccat is already starting to recognise disruption in this segment and believes that the early movers will capture significant business advantage. "We are moving towards an inflection point for the industry," he says. "Prime brokers will begin to direct a rising percentage of their current physical borrowing towards synthetic — and the first agent lenders that establish an agency TRS product are likely to attract significant volumes."

"The race has already begun to capture this activity," he continues, "and this transition is likely to move faster than many commentators might expect. We are not talking in the near term about agent lenders switching 100 per cent of their lendable assets from physical to TRS — but the ability to extract a slice of these assets, for example from their largest beneficial owners clients, is likely to take months or quarters rather than years."

Voice negotiation with digital workflow

In February, Wematch announced that it has entered into a cooperation agreement with MTS in the interest-rate derivatives space, whereby the Euronext-owned electronic fixed-income trading platform will apply Wematch technology to offer web-based interdealer trading for interest-rate swaps.

This solution, MTS Swaps by Wematch.live, aims to digitise voice trading in rates swaps, combining benefits of traditional voice trading and fully electronic execution

platforms in providing additional flexibility to traders to do voice negotiation supported by digital workflow.

Traders will benefit from higher automation compared with traditional voice-based trading workflows, along with trade protection through pre-trade price and size controls, and electronic audit trails across the negotiation and trade lifecycle. The service partners indicate that this facility will reduce trading costs through a transparent fee schedule offering per-trade or bundled fee options.

This will be released with interdealer order-book trading functions and will offer additional negotiation choices to the electronic rates swap market such as meet-in-the-middle and upsize. The two companies indicate that D2C request-for-quote (RFQ) trading facilities are likely to be added later this year.

MTS Swaps draws on Euronext MTS' large European trading network, which supports average daily trading volume in advance of €160 billion, reinforced by Wematch's expertise in delivering digital trading workflow.

Raccat explains that this service will go beyond the dealer-to-dealer platform to also provide a dealer-to-client solution, integrating the Wematch technology within the MTF BondVision platform, Euronext's multi-dealer-to-client trading platform for government bonds and credit. "This provides an opportunity to partner with a top-quality D2C platform backed by Euronext, the Paris-based exchange offering multi-asset trading in seven EU markets," he says.

Hard-to-borrow

The processes associated with accessing and borrowing hard-to-borrow (HTB) securities have typically been manual and inefficient, with trade negotiation relying heavily on voice, chat or email and with few effective facilities in place to facilitate electronic negotiation and automated workflow. Responding to this constraint, Wematch has built a digital lending module for HTB securities as part of its securities lending platform, enabling traders to access liquidity in these names more easily in lit and dark markets.

This supports automated negotiation, matching and RFQ facilities to enable users to offer prices and bid on specials and relatively illiquid mid- and small-cap stocks for which there may be high borrower demand.

"The hard-to-borrow platform is making strong progress," comments Raccat. "We already have more than 20 clients that are using this platform on a daily basis and we have been issuing regular new releases for this service. We are talking to a wide community of clients, which will scale up what is achievable in terms of the volumes we support."

This platform has been live in Europe for more than 12 months and Wematch intends to make this available in the US in coming weeks, as well as extending this out to APAC clients. "The Wematch HTB platform is compatible with a wide range of negotiation protocols and offers automated workflow, delivering high STP rates that mark a significant departure from the manually-intensive trading and process flows that have traditionally dominated hard-to-borrow securities," says Raccat.

ETF Synthetics

Banks face significant complexity when hedging synthetic ETF positions using TRS, requiring information relating to how the ETF is structured, investment guidelines, concentration limits, and potential restrictions imposed by sustainability and ESG parameters.

Since the inception of the ETF market, these exposures have typically been managed through inefficient and time-intensive manual processes that present substantial operational risk. Wematch aims to bring automation and more efficient workflow in hedging ETF synthetic positions using TRS.

In handling ETF synthetics, banks are engaging directly with ETF issuers and face significant complexity in managing term sheets and working with the associated collateral. "This may require monitoring all the concentration limits associated with a UCITS fund, for example, and ensuring that these limits are never breached when there is a collateral allocation," says Raccat.

By adding this solution to the Wematch workflow, the company is confident that this may open the door for more buy-side organisations to use the Wematch platform. It aims over the coming 12 months to onboard more ETF issuers, and asset managers more generally, providing them with technology, assisting their STP workflows, offering API interfaces and access to the TRS ecosystem that it has established.

> *"By ensuring that every trade, physical or synthetic, is managed in the same system, this moves us ever close to a one-stop shop for collateral"*

"We are very aware that the ETF synthetic space is an underserved part of the market," notes Raccat. To manage collateral efficiently, a firm needs to have all of its trades in one place, accessible through a single platform. Otherwise, this will result in additional fragmentation. "So by ensuring that every trade, physical or synthetic, is managed in the same system, this moves us ever close to a one-stop shop for collateral. That is where we want to go."

Concluding thoughts

In closing, Raccat indicates that Wematch views itself as the reference platform for the synthetic lending market, serving the important objective of bringing standardisation and automation to a market segment that was previously characterised by inefficient manual processes.

The company continues to manage its solutions development and IT capability in-house, with developer teams based in Tel Aviv, Paris, and New York to support its expanding global footprint. Raccat explains that the primary investors and shareholders also continue to play a key role in guiding strategy and solutions development. J.P. Morgan, for example, was central to guiding the development of Wematch's interest rate derivatives solution and Société Générale was prominent in driving the equities derivatives product.

Wematch closed a Series B funding round in December 2021 that raised close to US$28 million and added several new investors, including Barclays and CE Innovation Capital. This Series B funding was led by DB1, the corporate venture capital arm of Deutsche Börse, with J.P. Morgan, Societe Generale, Augmentum Fintech and Illuminate Financial among the other companies that participated in this funding round.

"We are fortunate to have strong shareholders and banking partners," says Raccat, "and they are fully aligned with Wematch's growth and success, participating through a collaborative approach that drives the company."

"A member of our user group may put forward an idea and we will work together to scope, design, develop, test and release for the benefit of the full Wematch community. But this stakeholder may also benefit from ideas that have been proposed by other user group members, such that this process works more as a partnership than a series of client-provider relationships," concludes Raccat. ■

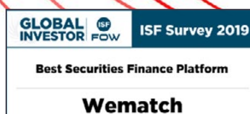
David Raccat
Co-founder and global head of securities finance
Wematch

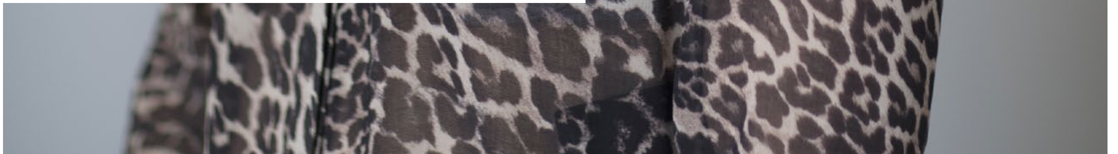
Securities Financing // Delta One // Equities Derivatives // Interest Rate Swaps

Wematch Securities Financing

Wematch.live's award-winning digitally-native platform is revolutionizing financial workflows. With a network of nearly 1,000 dealers and 90 institutions, we streamline pre-execution, negotiation, and post-trade transaction data to drive productivity and profitability. We develop tailored solutions to fit our clients' needs, from automation to API integration compliance and risk management.

wematch.live





Emily Hollyoake
Head of client relationship management EMEA
EquiLend

Powering progress in financial institutions

The systems that are now considered to be legacy were once at the forefront of technology, but were not designed with future-proofing in mind, says Emily Hollyoake, head of client relationship management EMEA at EquiLend, who discusses the importance of an interconnected ecosystem

Every single thing in the world is interconnected in some way. For instance, the device you are using to read this, the semi-precious metals that enable it to function, the energy it requires and the markets that rely on your consumption of these resources.

Similarly, financial systems are deeply intertwined, as demonstrated by the potential for one erroneous trade to trigger widespread issues. Failing to recognise these connections and their advantages can, and has, come at a great cost in the sector at times.

The scale of the problem

In years gone by, the days of using pen and paper, companies were not as adaptable as they are now. The systems used at the time failed to recognise the connections within a workforce or an industry. At EquiLend, we have gained valuable insights in identifying these connection points from our experience in creating technology that oversees the entire trade lifecycle, from start to finish.

This has led us to favour modular solutions that can function independently of any proprietary or competitor systems — a rare thing, and a strategy which has worked well for us, enabling us to evolve our services into an ecosystem of solutions. With regular enhancements, we can further improve our offerings to benefit both our clients and the securities finance community as a whole, striving to achieve simplicity and ease-of-use in our securities finance solutions through an interconnected ecosystem with cross-platform capabilities.

A unique lens on change

In the past several decades, there has been a significant transformation in the use and scope of technology, particularly in the finance sector. The technology used in finance has had to adapt quickly to support increasingly complex transactions and ensure the sector thrives.

The systems that are now considered to be legacy were once at the forefront of technology, but were not designed with future-proofing in mind. These systems were initially created as static, hard-coded, monolithic structures that allowed entire firms to input and process data. The idea of rapid change was not a major consideration. However, as rapid change has become the norm in our fast-paced world, maintaining these bulky legacy systems has become too expensive to ignore.

We view the problems addressed by our solutions as interconnected, with multiple solutions and dependencies; each issue must be taken into account when adapting another. This may result in a greater workload in the short term for incremental improvements. However, the value of being able to provide a suite of networked products that cover the entire trade lifecycle is unparalleled. There is even greater value to be found in the adoption of technology such as distributed ledger technology (DLT), which is already transforming other sectors and is central to EquiLend's 1Source initiative. 1Source will use DLT to create a single source of truth for the securities finance market, effectively eradicating reconciliation.

Our ecosystem of solutions includes trading, post-trade, regtech, data and analytics, and platform solutions (such as books and records). Each of these specialised solution groups is managed by expert teams that provide immense value to the existing suite and proactively anticipate the next problem to solve. While each solution group has a defined scope, the true value of EquiLend lies in the comprehensive ecosystem that these solutions collectively form. As a case in point, 1Source

will draw on data from across our ecosystem of solutions and, utilising blockchain technology, will create this central source of transactional truth to further advance the sector.

Our innovative approach is demonstrated by the recent launch of Competitive Bid, a feature of our universal trading platform NGT, in March of this year. Competitive Bid is a purpose-built solution for trading in the hard-to-borrow space that complements the standard execution process. This feature draws on market intelligence from NGT, Post-Trade Solutions and EquiLend Real-Time Data to centralise workflows into a single portal for the entire desk. Clients gain insight into available inventory, demand, open contracts and market benchmarks. By providing centralised access to these metrics, which are sourced from multiple disciplines across our business, clients benefit from genuine market-level transparency.

The launch of Real-Time Data is a recent development that has introduced the industry's first global data feed for lending activity that is up-to-the-minute. As we approach the reality of T+1 in 2024, the need for real-time data is becoming increasingly urgent. Our ecosystem of solutions is designed to provide clients with efficiencies at every stage, utilising interconnected and agnostic technology to automate processes, simplify workflows and, most importantly, speed up trade settlement across the trade lifecycle.

Within any ecosystem, the relationship between cause and effect is key. By supporting our clients with increasingly efficient processes and cutting-edge tech developments as we continue to build and improve our solutions ecosystem, we are equipping them with the necessary technology to be fully prepared for the future.

EquiLend's existing solutions across our entire ecosystem were implemented long before the enforcement of the Central Securities Depositories Regulation (CSDR), providing longstanding operational success. For example, our NGT automated trading platform has improved match rates, our Post-Trade Solutions offer settlement efficiency and collateral insight, while DataLend provides real-time information on market activity. In addition, we are fully prepared for T+1 settlement with automated returns and recalls, and our EquiLend Exposure platform facilitates collateral management. Compliance with the proposed U.S. Securities and Exchange Commission (SEC) regulation on securities lending transparency, 10c-1, will be simple for firms in the EquiLend ecosystem, as the necessary data can be generated instantly from EquiLend's engine.

Building for the future

The value of ecosystem builds is evident in our comprehensive suite of solutions. For instance, the high point-of-trade match rate of more than 99 per cent achieved by NGT is a result of its agnostic nature, which allows for broad market trading. Our Post-Trade Solutions, facilitated by OneFile connectivity, reconcile 1.4 billion data points each day, streamlining post-trade activities. Multiple regtech solutions, including Agency Lender Disclosure (ALD), Securities Financing Transactions Regulation (SFTR) and CSDR, support seamless compliance with international and regional regulations. Our data and analytics solutions division offers data and market intelligence.

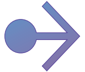
EquiLend Spire facilitates efficient, centralised management of your entire securities finance business through flexible, modular elements. 1Source then draws on each of these solutions to deliver our core vision of a central source of truth for securities finance. The value chain of this interconnected ecosystem is undeniable.

Today's consumers demand flexibility in their products, and with VC-funded companies raising US$32.4 billion in Q4 2022, significant investments are being made in big tech. Our big tech resides in an interconnected ecosystem of solutions that empowers our clients to efficiently address problems across the entire trade lifecycle. Rather than working independently, we constantly strive to enhance all solutions to provide clients with future-proof benefits. This approach creates a network effect that generates value across the entire industry. ■

EQUILEND

SOLUTIONS POWERING THE FULL SECURITIES FINANCE ECOSYSTEM

TRADING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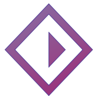
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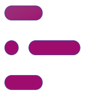
DATA & ANALYTICS

SECURITIES FINANCE PLATFORM

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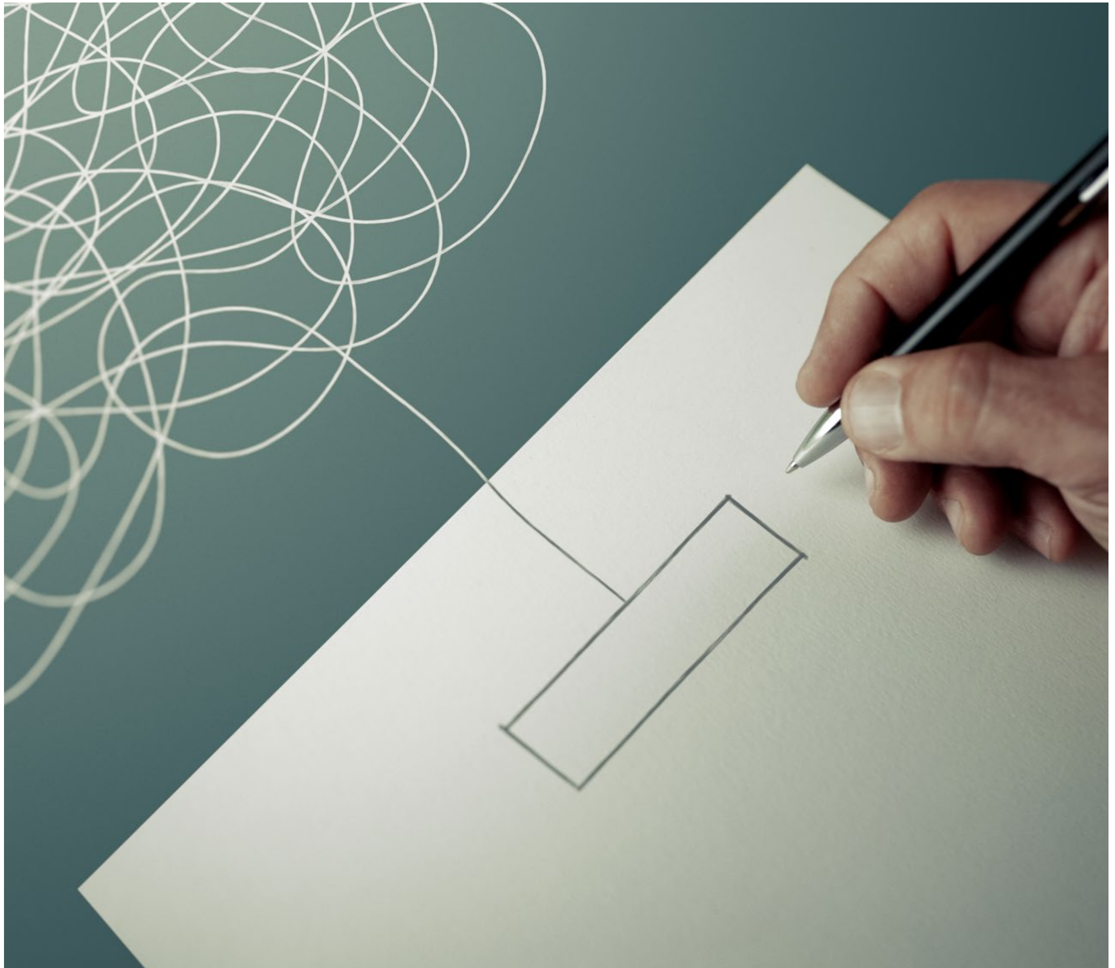


Solving for a crucial function

FinOptSys CEO Divyesh Bhakta and chief quant officer Alfredo Hernandez discuss the complexities of collateral optimisation, while highlighting the key components that will make for a successful collateral management framework

Recent market stress, coupled with the ever growing regulatory environment, has emphasised the importance of developing and maintaining cutting-edge collateral management capabilities. It is not only essential for the effective monitoring and managing of credit risk exposure, but also for identifying counterparty stress and for enabling optimisation of collateral inventories during periods of high market volatility.

Managing collateral optimally can be extremely complex, not to mention costly. This is particularly true for large institutions that typically rely on a fragmented infrastructure, that operate in numerous regulatory jurisdictions, that have multiple counterparties, asset classes and oftentimes siloed businesses. This fragmented collateral management infrastructure leads not only to heavy reliance on error-prone manual intervention or processes across the

transaction lifecycle, but also to a lack of ability to effectively analyse, forecast and manage collateral inventory and obligations. For many institutions, collateral management processes lack automation, which results in missed margin calls, suboptimal collateral allocations and opportunity costs in the form of missed revenue and higher funding costs.

One of the primary challenges of collateral management is balancing liquidity and cost. On one hand, collateral needs to be readily available to meet margin calls and other obligations, while on the other, keeping large inventories of high-quality liquid assets can be costly, as it ties up capital that could be deployed elsewhere. Moreover, collateral not actively utilised to generate income by taking advantage of investing opportunities and collateral transformations is a true opportunity cost to the institution.

We believe that the trade-off between different uses of financial assets should be optimised, while providing an efficient solution to satisfy margin requirements to different counterparties — conditional on their respective schedules, investment opportunities and additional set of financial resource constraints. For collateral management to be successful, it needs to efficiently optimise asset allocation across competing objectives: selection and pledging of collateral, funding, transformations and securities lending.

An important function of collateral management is margin optimisation, where assets are pledged to satisfy a diverse set of margin requirements for different counterparties. The final objectives can be both reducing cost and increasing liquidity, while satisfying margin calls. Ideally, this pre-trade portfolio optimises resources at the organisation level and ensures a stronger balance sheet with reduced margin costs, which will ultimately affect the bottom line.

Comprehensive collateral management should include efficient funding and collateral transformations. These actions can be represented by upgrading or downgrading collateral and must be driven by margin requirements and revenue generating opportunities. Collateral transformations involve converting one type of collateral into another.

This can be useful when a counterparty demands a specific type of collateral that is not readily available, or when there is excessive cost of holding a certain type of collateral. For instance, to meet the requirements of a counterparty or regulatory authority an institution may transform a lower-quality bond into a higher-quality bond (i.e. collateral upgrade). Also, by taking advantage of downgrades, institutions maximise the value of their collateral inventory, generating additional revenue.

Lastly, collateral management should also involve securities lending and borrowing. This important activity refers to transactions where assets are lent against collateral to be returned at some point in the future. Securities lending may involve lending out high-quality securities from collateral inventory to other market participants in exchange for a fee. This can be an additional source of income for institutions, as it allows them to earn a return on otherwise idle assets, while maintaining control of the collateral inventory. Furthermore, securities lending enhances the liquidity and flow of assets in the market as it provides an alternative source of funding for market participants that need to borrow securities to settle transactions. Therefore, both lenders and borrowers benefit.

It is worth noting that margin optimisation, collateral transformations and securities lending can also introduce additional risks and complexities into the collateral management process. For example, the borrower of securities may fail to return them on time, or the value of the collateral may decline rapidly, leading to a shortfall in margin. Institutions can carefully manage these risks by applying technologies to manage their collateral inventory and obligations, while reducing funding costs, maximising liquidity and benefiting from investment opportunities.

Managing collateral allocations optimally has multiple advantages such as increasing balance sheet liquidity, reducing cost while meeting collateral exposures, reducing the risk of margin calls when mark-to-market goes against the position, among other benefits. As a result, collateral management becomes crucial to the efficient and smooth operation of many financial institutions.

By properly defining an optimisation problem and using mathematical algorithms systematically, institutions can determine the optimal allocation of collateral, considering countless factors such as credit risk, liquidity, cost, funding and transformation, to name a few. For instance, a collateral optimisation model can help identify the most efficient way to use available collateral to satisfy margin requirements, while minimising the cost of holding excess inventory.

Current research

Despite its importance, there is limited research literature on collateral optimisation. Collateral management frameworks tend to focus on simple versions of the margin optimisation problem, with a limited number of constraints and a single objective, namely cheapest-to-deliver. In addition, given the nature of the problem, there may be multiple steps involved in the optimal management of collateral. However, existing literature tends to find solutions by solving sequential problems, using the output from a previous problem to find the solution to the next one and so on.

For example, a generic framework may involve the formulation of a linear programme with a single objective and a limited set of constraints, such as concentration limits on asset types and individual securities. These models are usually tested with hypothetical datasets. Although this is a viable approach, as it allows them to simulate scenarios not observed with real data, it lacks structure and flexibility to solve larger problems, for example, a large number of counterparty and margin type pairs, as well as multiple funding sources.

However, when multiple objectives are involved, such as funding and margin, standard algorithms become difficult to implement due to their sequential approach, therefore obscuring the usefulness of collateral management models. At FinOptSys, we think this approach is not only inefficient but fails to capture a holistic optimal solution, which should involve trade-offs for all securities allocations available.

As a result, a sound collateral management framework takes a comprehensive approach to solve the problem optimally. Our collateral management solution makes several ‘decisions’ redundant, such as which objectives to optimise first, emphasising concrete actions for the best use of securities given all available trade-offs. In summary, our algorithm finds a holistic optimal solution which simultaneously maximises multiple objectives, subject to a diverse set of constraints that bound the solution set and make the allocation portfolios realistic, efficient and easy to implement.

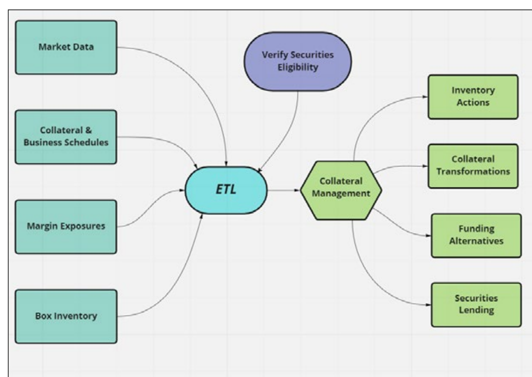
A comprehensive framework

Ideally, a holistic and comprehensive collateral management framework is designed to increase the operational efficiency and transparency of the allocation process by consolidating all collateral assets and management functions under one system. In addition, the introduction of fully digitised schedules for margin and transformations allows for a seamless execution of the allocation process, where eligibility criteria is fully integrated within the model and seamlessly updated. The full integration of the model within the FinOptSys platform allows interaction with other modules such as our patent-pending (allowed) Activity Based Collateral Modelling (ABCM) Analytics, reflecting real-time sources and uses of collateral.

The collateral management algorithm implements a single-step mixed integer linear programme to solve a collateral optimisation problem given a diverse set of inputs and constraints. The purpose of this allocation is to meet collateral obligations while maximising asset liquidity and reducing the ‘risk’ of pledged portfolios. Additionally, it finds cheapest-to-deliver securities and optimal funding sources, while it searches for potential investment opportunities in the form of collateral transformations and securities lending activity.

Figure 1 shows inputs to the model, as well as selected actions to be taken given competing optimal objectives. Note that the eligibility criteria is seamlessly incorporated into the model and is taken into account when constructing the model, given all required inputs.

Figure 1: sample inputs and actions for the FinOptSys collateral management framework.



The algorithm is then presented as a unified framework where the collateral allocation problem is solved in a single step by simultaneously analysing the trade-offs of uses for different securities, while satisfying margin requirements given eligibility criteria derived from individual schedules. These trade-offs are captured by different linear objectives, which may have weightings based on the current environment or on user preferences; the model objectives can be described as a combination of portfolios that will simultaneously maximise liquidity, minimise cost, maximise revenue, while searching for the cheapest funding.

To find a feasible and viable solution, the optimisation problem constraints need to be well defined. Constraints are broken down into three distinct categories:

1. **eligibility constraints:** given by margin and business schedules. These constraints are essential for the model allocation to be compliant with agreements among all counterparties involved in the transactions
2. **accounting constraints:** given by asset availability and the uses of such assets. Considering we are solving multiple problems with one optimisation algorithm, these constraints link otherwise distinct actions to interact with each other
3. **efficiency constraints:** these constraints are important to avoid wasting scarce resources. This can be represented by overallocation of collateral, overpaying for funding opportunities, or missed opportunity costs by not taking advantage of revenue generating actions, among others. In addition, this category includes a regularisation constraint, where a substantial number of transactions are penalised, and finds a solution with the least number of transactions possible, seamlessly reducing trading costs

The model output represents a set of portfolios which maximise a linear combination of objectives, given the three sets of constraints. Consequently, the final output shows optimal margin allocation, cheapest funding opportunities and provides suggestions to invest idle securities to generate extra income. It provides clear and actionable portfolios for all possible collateral obligations and uses.

Moreover, the table is broken down by actions, counterparty and source, highlighting additional relevant fields that can be used for analysis and to better understand the optimal allocation.

This idea is represented in Figure 2, which shows

Figure 2: sample data set from optimal allocation output.

Counterparty	Security	Asset Type	Asset Target	Collateral Type	Action	Source	Haircut	Weight	Margin	Value	Funding Cost
Counterparty1	US912796F386	UST	NA	IM	inventory	Inventory	1.00%	1.000	$ 35,000,000	$ 10,350,000	$ -
Counterparty1	US91282CAY75	UST	NA	IM	inventory	Inventory	1.00%	1.000	$ 35,000,000	$ 25,000,000	$ -
Counterparty1	USD	CURRENCY	NA	VM	funding	Funding Cash	1.00%	0.471	$ 75,000,000	$ 75,750,000	$ -
Counterparty2	FR0000978371	MMF	NA	IM	inventory	Inventory	1.00%	0.990	$ 30,000,000	$ 30,300,000	$ -
Counterparty2	USD	CURRENCY	NA	VM	funding	Funding Cash	0.00%	0.435	$ 70,000,000	$ 70,000,000	$ -
Counterparty3	XS0144628053	CORPORATES	NA	IM	inventory	Inventory	11.00%	0.890	$ 20,000,000	$ 22,200,000	$ -
Counterparty3	XS0144628053	CORPORATES	NA	VM	inventory	Inventory	11.00%	1.000	$ 70,000,000	$ 3,815,658	$ -
Counterparty3	XS1269175466	CORPORATES	NA	VM	inventory	Inventory	11.00%	1.000	$ 70,000,000	$ 16,884,342	$ -
Counterparty3	XS1849472938	CORPORATES	NA	VM	inventory	Inventory	11.00%	1.000	$ 70,000,000	$ 57,000,000	$ -
PeerRepoCorp	XS0097283096	CORPORATES	CURRENCY	FUNDING	funding	Peer Repo: IG Corporates 1 Upgrade	5.00%	1.000	$ -	$ 51,616,962	$ -
PeerRepoCorp	XS0543369184	CORPORATES	CURRENCY	FUNDING	funding	Peer Repo: IG Corporates 1 Upgrade	5.00%	1.000	$ -	$ 51,616,962	$ -
PeerRepoCorp	XS1269175466	CORPORATES	CURRENCY	FUNDING	funding	Peer Repo: IG Corporates 1 Upgrade	5.00%	0.704	$ -	$ 36,327,165	$ -
PeerRepoCorp	USD	CURRENCY	CURRENCY	FUNDING	funding	Peer Repo: IG Corporates 1 Upgrade	0.00%	0.457	$ -	$ 132,583,034	$ 1,271
PeerRepoUST	US912796F386	UST	CURRENCY	FUNDING	funding	Peer Repo: US Treasuries Upgrade	0.75%	0.586	$ -	$ 13,266,465	$ -
PeerRepoUST	USD	CURRENCY	CURRENCY	FUNDING	funding	Peer Repo: US Treasuries Upgrade	0.00%	0.294	$ -	$ 13,166,966	$ 90

a sample output table where different actions are shown to be optimal given initial inventory, margin requirements, funding availability and lending opportunities. For example, Counterparty1's IM margin is satisfied with US Treasuries from inventory, while VM margin is using cash, funded with two different repo programmes.

In turn, given different collateral schedules, money market funds and cash are used for Counterparty2's margin, while Corporates are used to satisfy Counterparty3's margin. Note that the table is clear and specific in terms of the allocation and in the use of individual securities, sources and actions. In addition, it provides a list of relevant fields, such as haircuts, weight allocation and funding costs, among others.

Conclusion

Collateral management is a crucial function for financial institutions and has taken a more prominent role in recent years. The challenges experienced by seasoned market practitioners and clients have highlighted the need to review and improve end-to-end collateral processes, from front-office secured funding and financing activities through middle- and back-office operational margin and settlement functions. Moreover, they have increased the importance of collateral analytics, optimisation capabilities, and the need for automated operational processes and workflow to effectively manage collateral.

The lack of a collateral management comprehensive solution problem led us to the development and deployment of our innovative solution with its optimisation algorithms, which incorporate machine learning models and artificial intelligence. This will not only help institutions achieve optimal allocations of collateral given ever changing and dynamic requirements, but will also suggest substitutions, transformations and investment opportunities, therefore increasing efficiency in the collateral portfolio while generating passive income and enhancing liquidity.

The ability to run these algorithms on demand increases the role and importance of proper collateral management, especially after recent increases in interest rates and a potential recession in the economy that can make certain institutions more vulnerable to liquidity runs and counterparty risk.

We believe firms should invest in their front-office trading and optimisation infrastructure and review whether they should invest in further uplifting operational capabilities in-house or outsource these functions to an asset servicing provider. Ultimately, significant control, cost and financial resource efficiency needs to be achieved through investment in front-to-back collateral management processes — such as those offered by FinOptSys, delivering solutions for the future, today!

Divyesh Bhakta
CEO
FinOptSys

Alfredo Hernandez
Chief quant officer
FinOptSys

FinOptSys®

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The path to global UTI harmonisation

Jonathan Tsang, business development director, Europe at S&P Global Market Intelligence Cappitech, explores the industry's transition to further harmonisation through the sharing of unique transaction identifiers, and the move to apply this concept to the derivatives market

As regulatory reporting continues to evolve, transaction reporting is converging towards harmonisation on a global scale. The next raft of rewrites in the derivative space will bring this closer to fruition.

The global industry has made a concerted effort over the last several years to standardise critical data elements (CDE) and create unique product identifiers (UPI), as demonstrated by the guidance authored by CPMI-IOSCO in 2018. MiFID led the way in standardised submission formats, introducing ISO 20022 XML into MiFID II. Successive regulatory technical standards and implementing technical standards released by the European Securities Markets Authority (ESMA) since 2015 have reflected the efforts towards harmonisation.

Regulators are now considering constraints from upstream data models to better understand how transaction data is initially captured and how this translates into reporting schemas. With a more standardised approach to transaction reporting, data will be more comparable, less ambiguous and easier to interpret, not just for the regulator, but also for clients who have multi-jurisdictional obligations.

The introduction of the Securities Financing Transactions Regulation (SFTR) as the first transaction

reporting regulation for the securities finance industry has shown progress towards harmonisation, compared to the European Market Infrastructure Regulation (EMIR). SFTR persisted harmonised elements such as the legal entity identifier (LEI), pairing and matching, and T+1 reporting. It followed a MiFID II precedent by adopting the ISO XML 20022 reporting standard. A beneficial step to improve the unique transaction identifier (UTI) pairing was to mandate reporting parties to share UTIs by T+1, instead of the usual workaround of each party using non-shared UTIs.

As we approach the imminent G20 rewrites, there are important lessons learned from SFTR that are critical to improving data quality and ensuring that both counterparties on a trade are using the same UTI. One key aspect being introduced into EMIR Refit guidelines requires clients to share UTIs by 10:00 UTC on T+1, which is manageable for exchange-traded derivatives, cleared and electronically confirmed trades.

However, the tranche of manually agreed paper confirmed over-the-counter (OTC) derivative trades must be addressed. This requirement is similar to what is in place in SFTR today, which has achieved a better pairing rate of 64 per cent after two years of reporting compared to 60 per cent under the current EMIR regime.

The success of the SFTR regime in data quality can be largely attributed to an industry solution developed by S&P Global (IHS Markit at the time) and the SFT industry to design a mechanism facilitating the exchange of UTIs between market participants and their counterparties. It applies directly to the challenge presented by EMIR Refit, as well as any other dual-sided regime which will mandate the sharing of common UTI in their rewrites.

UTI Connect, as the solution is called, is widely used today by market participants, including agent lenders, custodians, borrowers and lenders alike, to exchange UTI information. S&P is now introducing UTI Connect to the bilateral OTC derivatives industry to help market participants with the new sharing and pairing requirements across various dual-sided regimes, starting with Japan's Financial Services Agency (JFSA) and EMIR in April 2024.

As an overview, Global UTI Connect offers:

- a centralised approach for sharing and distributing UTIs before submission, which ensures that both sides report the same UTI.
- UTI Connect portal functions in real-time, meaning it operates seamlessly in the reporting lifecycle post-trade, but pre-submission to insert a UTI into the data flow.
- A single platform in a common standard format that allows counterparties to connect, retrieve and manage UTIs, reducing reliance on emails and PDFs.
- a configuration screen enables customers to manage their UTI-generating responsibility with their counterparties, thereby avoiding confusion about who the UTI generator is.
- adaptation of UTI Connect for different global dual-sided regimes, promoting harmonisation in UTI and facilitating the exchange of UTIs between clients in different jurisdictions.

The balance of evidence shows that regulatory reporting regimes are converging. Sharing a common and consistent UTI for the same trade within and across jurisdictions is a significant step in furthering this goal. These new requirements will help address critical gaps in the OTC bilateral derivatives market, provide better data quality and bring the industry together as it strives to meet the regulatory demands, while improving systemic risk monitoring. ■

Jonathan Tsang
Business development director, Europe
S&P Global Market Intelligence Cappitech

Matthew Battaini
Director of product management
Helix Financial Systems

Return of the boutique technology providers

As clients search through a sea of boutique providers and large technology vendors, Matthew Battaini, director of product management at Helix Financial Systems, breaks down why the 'boutique provider' is the top choice

In the securities finance space, we see a constant expansion and contraction of the service provider category. This includes the acquisition of smaller boutique firms by larger organisations with more resources and a wider range of offerings.

Over the past 10 years, we have seen multiple new players enter the securities finance space. Some have succeeded while others have missed the mark. Helix Financial Systems has been a boutique software firm for more than 30 years. We would like to review what makes the "boutique provider" a better choice when reviewing your technology needs.

Smaller offerings, larger impact

The phrase "Jack of all trades, master of none" comes to mind when thinking about larger technology vendors. Boutique firms, on the other hand, can focus on a smaller suite of projects and drive the success and expertise of these products rather than be stretched across dozens of products.

Cost

Smaller teams mean lower overhead costs, since a boutique firm does not need to support unnecessary headcount. Firms like Helix can be laser-focused and hire the exact support and development resources needed for maximum productivity. This allows us to pass savings on to our customers.

Product KYC (Know Your Product Manager)

At boutique firms like Helix, people tend to wear multiple hats. This is a good thing. Our sales team and product team interact with a firm on day one and continue to be the point of contact for the life of the client relationship. In contrast, larger shops typically have a separation between sales and product teams — this leads to conflicting information and causes a lack of time efficiency.

What boutique firms offer is a lack of bureaucracy and red tape. Smaller boutique firms, like Helix, do not require you to go through multiple levels of support to talk with a product manager or get to the right support person.

A vendor like no other

We are a hybrid vendor that gives our clients the best of both worlds. We are a nimble boutique vendor, but we have the benefit of being wholly owned by a primary dealer in the same industry as our clients. This gives our company financial stability and longevity, giving clients peace of mind that we will be around to support them in the long run.

Our boutique shop model allows us to provide a higher quality customer experience in all aspects of vendor support and development. We maintain a very close relationship with our clients and remain constantly aware of the pulse of the market. ■

Thomas Griffiths
Head of product
Cassini Systems

Market movements: no margin for error

Thomas Griffiths, head of product at Cassini Systems, explores margin and collateral analytics technology and the role it plays in liquidity risk management for derivatives trading

Due to regulatory reform, most derivatives trades have dealt with the daily exchange of variation margin (VM). Still, this requirement too often increases liquidity risk as companies must meet margin calls with high-quality collateral at short notice.

In the last two to three years, margin calls have been severely impacted by market volatility caused by extreme events such as Covid, the war in Ukraine and, for the UK, the effects of the mini budget of 2022 — which included a severe and quick decline in GBP, against the USD, together with a jump in yields of more than 1.5 per cent in a matter of days.

At the time of writing, Silicon Valley Bank (SVB), a commercial bank in California, failed on 10 March 2023. To date, it was the sixteenth largest bank in the US by deposits and assets, and the second most significant US bank failure.

While this recent episode is one of a sell-side institution feeling a liquidity squeeze, the lessons are equally relevant for the buy side. Investor redemptions during stress periods are known and frequently modelled liability risks. Furthermore, the buy side is a dominant user of derivatives and is susceptible to derivative margins under stress, making them sensitive to extreme market movements on top of their expected redemption profile.

Over the past two weeks (the latter end of March 2023), interest rates in some currencies have experienced falls not seen in the previous 40 years — a sign of panic buying of safe-haven assets, which resulted in massive margin calls on interest rate derivatives.

However, the less modelled asset side of the liquidity equation is more in need of attention. The buy side does not have regulatory liquidity ratios or buffers compared to the sell side. This means there are likely fewer liquid assets on a typical buy-side balance sheet than a sell-side treasury would have access to.

The risk that buy-side firms run on their set liquidity profiles was witnessed in the recent UK liability-driven investment (LDI) episode in Q4 2022. As mentioned above, as an effect of the UK mini-budget, some assets lost up to 30 per cent of their value over days due to market swings.

The current macroeconomic environment continues to display a large number of near-systemic events. This means that treasury and liquidity managers are closer to market stress that impacts seemingly “safe” assets

than they have been during recent history. Liquidity risk management is, yet again, getting its 15 minutes of fame.

The fallout in extreme scenarios

According to the Financial Stability Review's extreme stress testing scenarios (based on Covid models and the 2008 financial crash, conducted by the European Central Bank in May 2020), more than 30 per cent of funds that hold derivatives are highly likely not to be able to meet VM calls under a one-day stress scenario. This cash deficit amounts to as much as €4.5 billion for a sample of around 3,500 funds. Furthermore, assuming a move to full collateralisation by VM, in extreme market scenarios, an added liquidity requirement of about €30 billion for one-day stress scenarios and €70 billion under more prolonged market chaos is needed.

As extreme market shocks and increasing collateral postings are likely to occur — as proven by the past three years — companies are best advised to understand and forecast margin calls under different stress scenarios proactively. Many firms lack the tools to predict margin calls, but want to improve this part of the business. The need to better manage margin and collateral resiliency in times of market stress has created a requirement for a sophisticated journey into the technical processes and how to implement these correctly to serve each unique business' purpose best.

Liquidity risk management

The above results strongly indicate an immediate need for liquidity risk management tools for companies and the broader economy's advantage in the derivatives markets. The ECB's report suggests that regulation will also be leveraged to ensure funds can meet possible funding needs resulting from extreme market circumstances. Firms should expect new scrutiny around margin calls and liquidity issues from regulators and must prepare in advance.

Although looking at the asset and liability sides of the equation is a solid start for liquidity management, the real value of liquidity analysis comes from a holistic view of assets and liabilities and their interaction in extreme market scenarios. Liquidity managers should aim to build sufficient liquidity buffers across the organisation during stressful events, including all possible stress factors, for example, simulating the timing mismatch between outflows and liquidity-raising capabilities.

In the example of SVB, a liquidity stress test in Q4 last year — upon seeing the early warning signs — stressed deposit outflows over a couple of days. It devalued their 'liquid buffer' of US treasuries in line with expected Fed rate hikes which would have highlighted the liquidity gap.

The lack of adequate liquidity management increases the possibility of funds encountering huge margin calls that cannot be met, resulting in a default on their obligations. Last year, we witnessed a very extreme example when UK pension funds required the Bank of England's support not to default. Without the intervention of a bank, examples such as this become a systemic risk to the whole economy.

Short notice funding of margin calls also means companies are in a sticky situation: relying on expensive overdrafts or credit. This inadvertently results in increased costs to the business, with prices becoming more extreme in cases where companies have short notice to gather the necessary liquidity.

In the worst instance, substantial margin calls cannot be met, resulting in bankruptcies. One such example is Archegos Capital Management, which announced bankruptcy in 2021, mainly due to it being highly leveraged — a position made possible by meagre interest rates at the time.

But all is not doomed. New technology has made great strides throughout the financial sector, and companies can implement margin and collateral analytics to understand liquidity needs better and free up cash. A firm using such intelligent margin analytics can typically save around 30 per cent to 40 per cent of its initial margin (IM) requirements. Such analytics can also help firms prepare in advance for extreme market conditions and significant VM calls, avoiding emergency funding's associated costs.

The future of liquidity

In recent years, regulatory requirements such as Uncleared Margin Rules (UMR), extreme market shocks and rate rises have created a perfect storm for funds, driving up margin calls and hugely affecting liquidity. In the face of this, liquidity management emerges as a frontline response to mitigate potential business woes.

An instrumental assessment must look at derivatives and, most importantly, at collateral, allowing businesses to trace a plan for different scenarios. Higher interest rates make liquidity a more costly problem, resulting in expensive bids to raise cash quickly. Due to this, fire sales become an even greater risk to the business: something only accounting for various scenarios can circumvent.

An essential date for pension funds is quickly approaching — the central clearing obligation under EMIR is due to end on 18 June 2023. The imposed regulation will see pension funds facing increased liquidity risk, including VM. The ECB conducted an analysis on liquidity buffers and derivatives exposure on Dutch pension funds and found that the stress testing resulted in VM calls on interest rate swaps being between €36 billion and €47 billion (an aggregate cash shortfall of €6 billion to €15 billion). When using the upper estimate, 55 per cent of pension funds could not fund VM calls.

This sector will likely see an immediate increase in liquidity risk management needs, with funds across Europe unable to rely on banks and solely responsible for meeting funding needs. At a recent Cassini regional event, an adviser from a country bank said to the present hedge funds: “Do not call us. We will not bail you out.” This stance further reinforces the importance of adequate liquidity management.

Liquidity frameworks are essential for hedge funds, which use volatility as an opportunity. Their portfolio strategies consider volatile markets great monetary sources, but this strategy would only succeed with liquidity management. Therefore, proper analytics allow companies to gain a distinct competitive advantage, but only if done proactively and not reactively.

The framework for resiliency

Looking ahead, the most significant challenges financial institutions will encounter over the next few years will be rising rates and their related costs to business due to poor management. Portfolio performances will suffer, especially for hedge funds whose potential trading volume capabilities will suffer due to more margin being consumed. This, in turn, will have a knock-on effect on prime brokerages, which will be getting lower fees from hedge funds. However, the intelligent prediction of a company’s future liquidity profile results in unique opportunities, including reduced costs and more revenue, resulting in a distinct competitive advantage.

A framework for managing liquidity can be the difference between business risk and opportunity. What we consider necessary is a specific framework around collateral and margin, including intelligent analytics. Transparency will play a vital role in this framework, allowing companies to see across different scenarios and assess where the potential risks lie.

Specific industries have seen frameworks implemented due to regulation, such as the banking and insurance industries, with rules that must be adhered to. We have seen a growing interest in adopting a framework in markets that are not heavily regulated, but some companies still need to see the benefits of such a structure. From our perspective, proper liquidity risk management needs to transcend regulation to a more advanced framework, such as one that encompasses the understanding of margin and collateral at pre-trade, enabling decisions on which is the most appropriate trading strategy and one that meets your cash flow.

Stress testing is one of the most common liquidity risk management practices. Still, it is used mainly by large banks that run hundreds of stress scenarios on liquidity: a strategy that has proven to be very effective. Although big institutions in the banking sector do this frequently, the same stress testing and forecasting level only exists across some financial sectors.

Technology companies now make this capability available to smaller players in the industry, and taking advantage of this could be the difference between success and failure. ■

Navigating the complexities of the financial ecosystem

In today's fast-paced and evolving financial industry, technological advancements are crucial for streamlining processes and complying with regulatory obligations. Comyno COO Frank Becker explores the firm's securities finance solution

From providing a platform for securities finance transactions and facilitating regulatory reporting to connecting seamlessly to distributed ledger technology (DLT) and blockchain platforms, Comyno's C-ONE suite offers market participants the tools to navigate the complexities of the financial ecosystem. Additionally, through the firm's partnership with SWIAT, Comyno is at the forefront of developing a blockchain-based financial market infrastructure for digital and traditional assets.

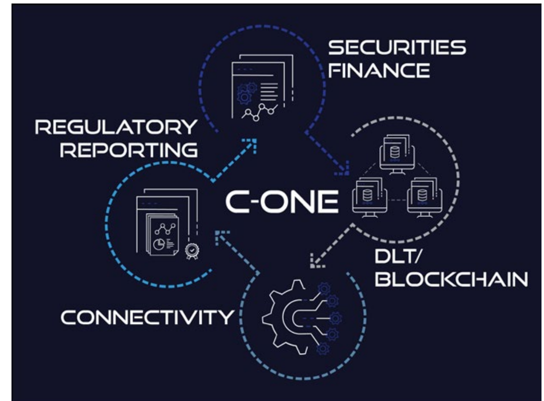
The securities financing market is still undergoing significant structural changes that require continuous optimisation measures. At the macro level, these changes include ever-increasing regulatory demands and process standardisation, which is leading to high costs and a large margin for human error. However, these problems are widespread in day-to-day business operations units and within the front office.

To counter these issues, an enhanced process of automation has to be implemented. Comyno offers a wide range of tools to improve the efficiency of business processes, increase the accuracy of tasks and speed up the flow of operations by minimising human interaction. It is about optimising process workflows to save time and costs while improving the quality and consistency of results.

Comyno's C-ONE suite incorporates a front-to-back office solution which aims to facilitate interactions with a number of third-party service providers, including electronic trading platforms, trade repositories, triparty collateral agents and central counterparties (CCPs), which can be easily expanded in a plug-and-play manner. Once the first component is established, C-ONE can be linked to major DLT and blockchain platforms.

The suite offers a range of key functionalities including securities finance trading, automated locates management, regulatory reporting and standard connectivity to systems and service providers. Having all of these functionalities in one system is the main advantage. This provides a streamlined front-to-back solution that is easy to integrate and user-friendly.

Figure 1: C-ONE suite



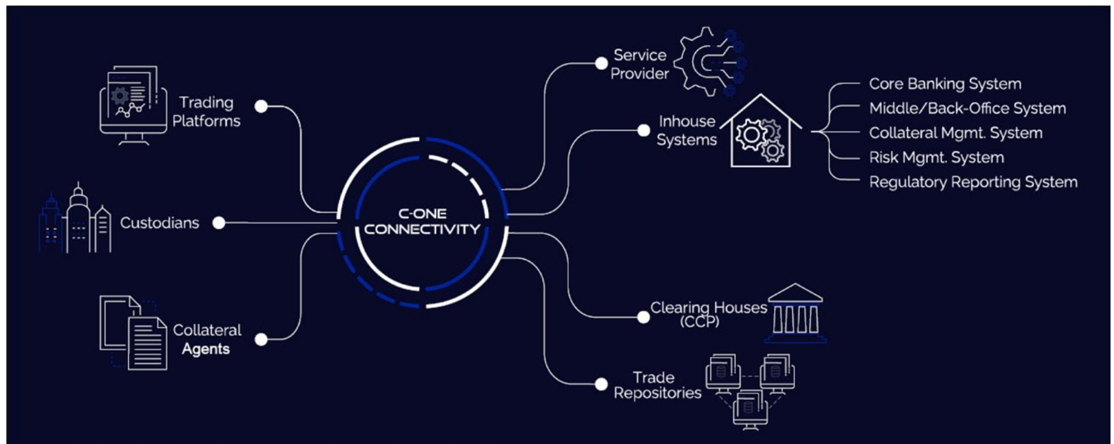
The suite is based on the data integration layer C-ONE Connectivity — a data integration platform that enables seamless interoperability between heterogeneous systems. This platform allows for the integration of in-house systems for core banking, collateral management and risk management, with external service and data providers such as clearing houses, trade repositories and trading platforms.

C-ONE Connectivity is a specialised solution designed to meet the complex security finance requirements of our clients, offering advanced features like an enhanced error and anomaly management system for high availability and resilient operations. With a comprehensive range of tools and plug-ins, our clients can efficiently cover all securities finance-related topics.

One significant component that has gained importance in recent years is the integration with a trade repository for Securities Financing Transactions Regulation (SFTR) reporting. C-ONE Security Finance complements C-ONE Connectivity in that regard by offering a SFTR front end that integrates with the trade repository to streamline reporting and compliance processes.

The SFTR solution offered by Comyno simplifies the reporting process for financial institutions by automating the creation and submission of SFT reports. The solution is versatile and adaptable, accommodating different types of SFTs and asset classes. Clients can easily manage their reporting duties and track data

Figure 2: C-ONE Connectivity



quality through the user-friendly interface. The solution also includes an advanced data validation engine to ensure the accuracy and completeness of reports — including the visualisation of the specific table, field numbers and the given error reason — before transferring the data to the trade repository.

Configurable notifications promptly alert clients to rejected reports or erroneous fields, helping them take immediate action and avoid penalties. Not only does the reporting GUI facilitate a company's own SFTR reporting, but it also allows for delegated SFTR reporting on behalf of clients. This is particularly beneficial for financial institutions who offer the reporting service to clients as smaller Tier 2 banks with limited back- and middle-office resources.

One of the most significant advantages of the C-ONE suite is its connection to DLT and blockchain platforms, supporting the current digital market demands. The suite is also ready for the transition of markets to broader DLT networks. Comyno has been at the forefront of supporting the development of a blockchain-based financial market infrastructure for digital and traditional assets, from and for regulated financial entities, called SWIAT.

Figure 3: SFTR Dashboard

COMYNO FLASH SCREEN MATCHING STATUS

TO BE SENT (165) | SENT (0) | DELIVERED (0) | CONFIRMED (311) | WARNINGS (25) | ALL RECORDS (501)

Trade Type	Action Type	Reporting Counter...	Other Counter...	Trade ID	Instrument De...	Instrument ID	Quantity	Field Name
Collateral Re...	COLU	[illegible]	[illegible]	295971	[illegible]	DE00[illegible]	0	Show All (155)
Reverse Repo	NEWT	[illegible]	[illegible]	295975	[illegible]	DE00[illegible]	206.059.028	2.16 Minimum Notice Period Show All (154)
Collateral Re...	COLU	[illegible]	[illegible]	266959	[illegible]	DE00[illegible]	5.878.441	Show All (155)
Collateral Re...	COLU	[illegible]	[illegible]	294964	[illegible]	DE00[illegible]	200.000	2.11 Master agreement version Show All (154)
Reverse Repo	NEWT	[illegible]	[illegible]	295961	[illegible]	DE00[illegible]	67.322.062,5	2.1 Unique Transaction Identifier (U 2.16 Minimum Notice Period Show All (153)
Loan	NEWT	[illegible]	[illegible]	295960	[illegible]	DE00[illegible]	70.000.000	2.1 Unique Transaction Identifier (U Show All (154)
Collateral Del..	COLU	[illegible]	[illegible]	294973	[illegible]	XS17[illegible]	-11.000.000	Show All (155)
Loan	NEWT	[illegible]	[illegible]	295982	[illegible]	DE00[illegible]	12.000.000	Show All (155)
Loan	NEWT	[illegible]	[illegible]	295985	[illegible]	US30[illegible]	1.000.000	Show All (155)
Reverse Repo	NEWT	[illegible]	[illegible]	295998	[illegible]	US30[illegible]	636.363.700	2.30 Floating rate reset frequency - 2.31 Floating rate reset frequency - Show All (153)
Reverse Repo	NEWT	[illegible]	[illegible]	295999	[illegible]	US30[illegible]	636.363,7	2.30 Floating rate reset frequency - 2.31 Floating rate reset frequency - Show All (153)
Reverse Repo	NEWT	[illegible]	[illegible]	296952	[illegible]	US30[illegible]	63.636.370	2.30 Floating rate reset frequency -

(1 of 24)

SWIAT is a joint venture between DekaBank, LBBW, Standard Chartered and Comyno. The company is further enhancing the platform, technically and functionally with Comyno. SWIAT provides a decentralised financial infrastructure and enables frictionless, real-time custody and settlement environment across asset classes between different global jurisdictions.

After demonstrating the possibilities and advantages of blockchains for securities lending in the past, Comyno is now expanding its capabilities to fully exploit the potential of this technology. SWIAT aims to eliminate market and infrastructure inefficiencies. Manual workflows from deal origination to settlement and daily security events with reconciliation are addressed directly with the platform. Through the uniform and standardised booking of transactions on the blockchain, sources of errors are minimised, leading to greater efficiency and cost savings.

The risk of collateralisation and associated counterparty risk are also considered, with a new trading type named “delivery-versus-delivery”. This allows for immediate collateralisation of the transaction, extending the settlement of both trades simultaneously and without delay to eliminate underlying trading and counterparty risk. Due to the immediate fail-free settlement of the transaction and the uniform data set for both parties, regulatory reporting can be initiated and implemented immediately, enabling even faster reconciliation of the transaction by the regulator.

By implementing Comyno’s C-ONE suite, our clients are able to upgrade their securities finance business to a cutting-edge, modern and efficient system. The platform’s modular and extensible approach allows for customised solutions at low entry costs, leading to increased profits right from the beginning. As digital assets and blockchain technology become increasingly relevant, we are well-positioned for future business.

Comyno’s expertise in the securities finance industry, combined with SWIAT’s cutting-edge blockchain technology, provides market participants with a powerful tool to navigate the complexities of the rapidly evolving financial ecosystem.

"Comyno’s expertise in the securities finance industry, combined with SWIAT’s blockchain technology, provides market participants with a powerful tool to navigate the complexities of the rapidly evolving financial ecosystem"

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Broadridge Financial Solutions, a global Fintech leader with over $4.5 billion in revenues, provides the critical infrastructure that powers investing, corporate governance, and communications to enable better financial lives. We lead business transformation and deliver technology-driven solutions for enriching client engagement, navigating risk, optimising efficiency, and generating revenue growth, helping our clients get ahead of today's challenges with products that streamline and simplify the Securities Finance industry.

Broadridge Securities Finance and Collateral Management (SFCM) offers a suite of global, front to back office securities finance solutions for buy side and sell side. Both our full service integrated Mainline solution and new FastStart rapid spin up operating solution both support agency and principal trading of equities and fixed income securities across securities lending, repo, collateral management, collateral optimisation, and end to end transaction reporting solutions. Broadridge's solutions help customers comply with new regulations, increase efficiency, improve strategic decision making and make more intelligent use of capital, balance sheet and liquidity.

In addition, Broadridge provides project management, consultancy, business analysis and testing support to augment firms' internal regulatory project teams and help them comply with the rules in a timely manner. Broadridge's technology and operations platforms underpin the daily trading of on average more than US$10 trillion of equities, fixed income, and other securities globally.

For more information about Broadridge and our proven securities finance, collateral management, and transaction reporting solutions, please visit our website.

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Founded in 2014, Cassini Systems offers an award-winning derivatives margin analytical platform that provides the industry's only front-to-back margin and cost analysis across the entire lifecycle of a trade. Cassini users can calculate any margin on any cleared or uncleared derivatives asset; analyze drivers and movement in margin exposure; reduce Initial Margin levels; and maximize margin efficiency with the firms' industry-leading, advanced algorithms.

Cassini services have a proven track record of enhancing portfolio returns at every point in the daily business cycle, empowering traders and portfolio managers to analyze instantly in the pre-trade stage the all-in, lifetime cost of a transaction. Top-tier hedge funds, asset managers, and global banks rely on Cassini for powerful, flexible, automated tools to manage their portfolios of over-the-counter and exchange-traded derivatives products. Cassini was named Best UMR Service of the Year in the Risk Markets Technology Awards 2022 and the Derivatives Technology Provider of the Year by the 2022 GlobalCapital Derivatives Awards.

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Your Specialists in Securities Finance

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Comyno is a specialised FinTech company with over 15 years of experience in Securities Finance, focusing on software and consulting. The company is led by its founder Markus Büttner, Admir Spahic, and Frank Becker.

Comyno works with leading private and public financial institutions, asset managers, clearinghouses, and tri-party agents, combining their expertise in strategy, business know-how, and technology.

Comyno's extensive experience in providing standardised and tailor-made solutions, increasing functionality and efficiency across the entire value chain of Securities Finance business. This is the main reason why customers choose Comyno's C-ONE software solution and consulting services. The company's innovative strength is demonstrated by its expertise in the area of DLT/Blockchain and its practical application. In 2017, Comyno founded Comyno DLT hub in Serbia and implemented blockchain technology in its trading software, C-ONE.

Consulting Services
- Strategic Consulting
- Project & Program Management
- Business Analysis & Consulting
- Technical & Infrastructure Consulting
- Product Architecture & Design
- Software Development
- Blockchain Development

Software Solutions
- C-One Securities Finance
  In-house/Platform Hybrid Solution
- C-One Connectivity
  Standard Market Interfaces
- C-One Regulatory Reporting Solutions
  SFTR I CSDR I MifID
- C-One Blockchain/DLT Solution

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EquiLend is a global financial technology, data and analytics firm offering Trading, Post-Trade, Data & Analytics, RegTech and Platform Solutions for the securities finance industry. EquiLend has offices in New York, New Jersey, Boston, Toronto, London, Dublin, India, Hong Kong and Tokyo and is regulated in jurisdictions around the globe.

EquiLend's solutions include:

- Trading Solutions: Supporting bilateral and cleared securities lending transactions and total return swaps optimization, EquiLend's world-class Trading Solutions bring unparalleled automation and efficiency to securities finance trade execution.
- Post-Trade Solutions: EquiLend PTS includes a streamlined package of services enabling firms to manage and automate their operational activities, with support across the entire trade lifecycle in securities finance. Additionally, benefit from seamless connectivity to EquiLend Trading Solutions for full STP.
- Platform Solutions: EquiLend Spire is a state-of-the-art platform and technology-driven hub for securities finance firms of all types, including agent lenders, prime brokers, retail brokers, beneficial owners and collateral managers. EquiLend Spire's powerful modules include a comprehensive books & records/subledger system and much more.
- Data & Analytics Solutions: EquiLend Data & Analytics is the firm's award-winning market data division. By combining innovative technology solutions with the experience of our team, EquiLend is able to provide securities finance market participants with a unique blend of industry-leading tools and consultative analysis.
- RegTech Solutions: EquiLend's suite of regulatory services support firms not only in meeting their regulatory requirements, but in enhancing operational efficiency. Offerings include support for SFTR, CSDR, ALD, ESG and, once live, SEC 10c-1.
- 1Source: EquiLend's 1Source initiative aims to resolve the industry's central pain points and risks, develop state-of-the-art technological solutions and efficiently transform the industry. 1Source will harness emerging technologies, such as distributed ledger, to develop an industry-wide "single source of truth" for transaction lifecycles in the securities finance industry.

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Combining Wall Street expertise with Silicon Valley technology, GLMX has developed a thriving ecosystem for the negotiation, execution and management of money market instruments including securities financing transactions (SFT) . Using state-of-the-art streaming technology, GLMX facilitates a wide array of SFT including multi-variable negotiation, lifecycle events management, STP, reporting and data management. Funded by leading Silicon Valley venture capital firms, GLMX brings unparalleled trading and liquidity management workflow efficiencies to existing counterparties in the global securities financing markets.
The GLMX solution provides intuitive technology, extremely quick development times and enhanced customisation. These characteristics allow GLMX to create a premium user experience.

GLMX technology functionality supporting SFT and Time Deposit trading includes:

- Web-based, RFQ-driven, Multi-variable Negotiation
- Bilateral, cleared, and triparty
- Cross-currency, locates, rate runs, packages
- Extensive data capture
- Trade life-cycle management
- Full SFTR reporting
- Pre and post trade API
- Pre-trade control functions

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Helix started as a simple, in-house repo application built for computers with glowing green monitors. The technology has changed dramatically in the two decades since, and Helix's offerings have expanded beyond Repo to the entire fixed income, equity, and MBS industry.

Some things haven't changed. Former traders still make up a large part of our development team. Requests from clients still drive nearly all upgrades and enhancements. In fact, the relationship between business users and software developers is stronger than ever. Today, as a wholly owned subsidiary of Cantor Fitzgerald & Co., Helix Financial has unparalleled access to some of the industry's most experienced post trade professionals, making our products the best adapted and most flexible tools in the marketplace.

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HQLA^{X} is an innovative financial technology firm founded by financial market practitioners. Our core clients are financial institutions active in securities lending and collateral management, and our shareholders include market-leading service providers in the global financial ecosystem.

Our vision is to be the distributed ledger for Securities Finance and Repo. We aim to achieve this vision by collaborating with our clients to design, develop and deliver innovative, technology-driven solutions for specific pain points in the financial markets.

Our immediate goal is to provide capital savings to global banks by improving collateral mobility across market-leading triparty agents and custodians in Europe. Together with Deutsche Börse, we created a multi-layer operating model which enables our clients to exchange ownership of baskets of securities across disparate collateral pools at precise moments in time. The atomic nature of our Delivery vs Delivery (DvD) ownership transfers provides our clients with capital cost savings by reducing credit risk, intraday liquidity requirements, and operational risk.

Cappitech

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Market Intelligence

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S&P Global Market Intelligence is a division of S&P Global (NYSE: SPGI), the world's foremost provider of credit ratings, benchmarks and analytics in the global capital and commodity markets, offering ESG solutions, deep data and insights on critical business factors. S&P Global has been providing essential intelligence that unlocks opportunity, fosters growth and accelerates progress for more than 160 years. www.spglobal.com/marketintelligence

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S&P Global Market Intelligence Cappitech provides regulatory reporting, best execution analysis and business intelligence solutions that meet the fast-evolving needs of the largest and most complex financial and non-financial institutions. Our cloud-based, cross-regulation SaaS platform fully automates the reporting process and provides a comprehensive view on a single, intuitive dashboard for reporting regimes such as EMIR, MiFID, SFTR, FinfraG, SEC, CFTC, Canadian reporting, ASIC, MAS, JFSA and others.

www.provablemarkets.com

At Provable Markets, we want to create a paradigm shift in how financial markets operate. And we designed Aurora, our ATS, to do just that. Aurora is the first unified, cloud-native access point for securities lending, complex option block trading, and security-based swaps.

We work closely with Provable Labs, our Amsterdam-based sister company. Together we're developing dynamic and efficient trading platforms that solve the problems our customers face today while creating a more robust and efficient market structure for the future.

Our team of top-tier academics, financial markets veterans, and technology experts, are developing innovative solutions with the highest level of integrity. We're leveraging our 100+ years of collective experience in computer science, engineering, capital markets and entrepreneurship to meet this challenge—and we couldn't be more excited for what's to come.

John Davidson
CEO

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The Options Clearing Corporation (OCC), named Risk Magazine's 2022 Clearing House of the Year, is the world's largest equity derivatives clearing organization. Founded in 1973, OCC is dedicated to promoting stability and market integrity by delivering clearing and settlement services for options, futures and securities lending transactions. As a Systemically Important Financial Market Utility (SIFMU), OCC operates under the jurisdiction of the U.S. Securities and Exchange Commission (SEC), the U.S. Commodity Futures Trading Commission (CFTC), and the Board of Governors of the Federal Reserve System. OCC has more than 100 clearing members and provides central counterparty (CCP) clearing and settlement services to 19 exchanges and trading platforms.

More information about OCC is available at www.theocc.com.

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Do you want to see your Securities Finance team outperform their peers?

Trading Apps is an independent tech team that builds software products for Securities Finance businesses. We're here to understand what you need and put you one step ahead.

By pulling together all the functionality your team needs into one system we provide a platform that supports increasingly complex trading strategies. It can be configured to suit your precise needs, this means a better experience for traders and support staff. And we never stop revitalising our solutions to keep pace with an evolving marketplace.

Why us? We've been traders. We've been support staff. And we have great technologists. We know the pressures you face, and we're here to give you the edge. Our team has 32 years of trading experience and 30 years of development experience. By knowing your business, we can adapt our software and services to match your needs. Trading Apps isn't just providing a service, we act as partners who are obsessed with constant improvement. If something keeps you awake, it's keeping us awake too.

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By digitising workflows, Wematch helps financial institutions tackle some of their biggest challenges including automation, cost, API integration, productivity, compliance, and conduct risks.

With a presence in London, New York, Paris, Tel Aviv, and Singapore, our award-winning digitally native platform enables the matching of interest on financing structures, optimises workflow around trades, and drives more efficient communications internally and externally. We work in lockstep with individual financial institutions to develop solutions that fit their needs precisely, and from which the entire Wematch community can benefit. Wematch is available either as a standalone product or on regulated trading venues as required by clients.

The Wematch platform enables buy- and sell-side firms to connect to 1,000 dealers and 100 institutions to better exchange pre-execution, negotiation, and post-trade transaction data. We drive profitability for financial institutions through next-level efficiencies including cost and time savings and significantly enhanced productivity.

Learn more at www.wematch.live

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FinOptSys, developed by seasoned market practitioners, is a State-of-the-Art, cloud-based SaaS platform, built to sit seamlessly on top of any existing system. It is the first pre-trade analytics and decision-making platform that covers all securities financing products (securities lending, repo, swaps) across all asset types (including non-traditional/digital assets) from legal document and collateral schedule negotiation/digitization to seamless trade negotiation with all clients, counterparties and peers.

Modular in nature and highly customizable, the FinOptSys platform is a perfect fit for any firm. Users can choose from one or a few modules to the entire platform, which consists of over 30 modules and continues to grow. The platform maximizes efficiency by providing sophisticated real time analytics for document negotiation, trading and management of securities financing products across business units, regions and overall institutions on a global scale. The technology allows users for the first time to proactively manage their financial resources with greater optionality to decrease cost, increase both yield and asset utilization and seamlessly connect to new sources of liquidity. FinOptSys deploys artificial intelligence (AI), machine learning, analytics, and patent pending (allowed) algorithms, which leads to and powers the first true Peer-to-Peer (P2P) marketplace, and enables participants to tap into an unprecedented level of diversification.

These capabilities, together with the power to seamlessly connect to all internal stakeholders and negotiate with any other market participants through our unique P2P and H2S (hub-to-spoke) networks, will catapult the securities financing business into an entirely new dimension of peak market efficiency, connectivity, liquidity, revenue generation, risk management and transparency.

FinOptSys is empowering the industry participants of today, with the necessary arsenal to solve for what's coming tomorrow!

INTEGRATED SECURITIES FINANCE SOLUTIONS

FOR ALL YOUR POST-TRADE FIXED INCOME, EQUITY AND CRYPTO NEEDS

HELIXREPO

Collateral Management

Real-time front-to-back integrated multiasset trading and risk solution for Securities Finance, and Collateral Management.

HELIXSL

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Helix offers a suite of modularized, web-based, applications designed to support the daily activities of a Stock Loan desk.

Depending on the exact needs of your firm, each application can be used as a standalone function, or combined to form a comprehensive end-to-end solution.

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Introducing Aurora

Discover the only regulated, cloud-native access point to the DTCC SFT Clearing Service for securities lending

+ Maximize your capital and balance sheet efficiencies
+ Automate and streamline your operational workflows and risk models
+ Broaden and diversify your liquidity pool

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