Inside Data Management

Inside Market Data Inside Reference Data

Courting Danger: Securities Lending Gets Served

HARD LABOR: DEALING WITH 'ALTERNATIVE' DATA

TP Icap's Eric Sinclair on the Value of the Client Experience

OLD ISSUES LAID BARE AS NEW STRUCTURES RISE

GDPR, Alternative Data Vie for Limelight as Industry Argues Over Fees, Transparency

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To recognize, promote and celebrate the outstanding contribution and expertize that women bring to technology and data in the capital markets space, *WatersTechnology* are launching the **Women in Technology and Data Awards.**

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See You in Court

We tend to assume that it's not a good thing if a dispute has to escalate to court or regulators in order to be resolved. But when the issue at stake is an industry-wide concern such as the rising cost of exchange data or alleged anti-competitive behavior in the securities lending market, courts and regulators can be a more appropriate venue for resolving complaints because their ruling effectively establishes law, whereas one-on-one negotiations between parties may be resolved to the satisfaction of those involved, but don't benefit the industry as a whole.

In this issue, Kirsten Hyde reports on the latest fee hikes from exchanges, and how disgruntled firms—as well as other venues and MTFs that need access to primary exchanges' data—facing these increases are responding. For example, in the US, 24 brokers, trading firms and asset managers have called on the Securities and Exchange Commission to review its process for approving new exchange data fees. Elsewhere, Tim Bourgaize Murray reports on how a lawsuit by three US pension funds is challenging the securities lending status quo, alleging collusion designed to keep the practice opaque and protect the fees charged by the major dealers who act as middlemen.

And court is where some firms may find themselves if they don't get a handle on the data management and privacy rules of the upcoming General Data Protection Regulation, which will introduce a new raft of challenges for any companies that collect, store and analyze data on counterparties and individual customers. One way firms can safeguard themselves is to follow GDPR's requirement that they appoint a data protection officer (DPO) who will serve as an independent authority within the company on how data can and cannot be used, and who will report directly to the company's board. However, with only a few months to go until the regulation comes into force, and a clear shortage of data protection professionals, Jamie Hyman notes that it may still be some time before DPOs are fully conversant with their firm's data usage and able to implement GDPR-compliant policies

This issue also features a profile of Eric Sinclair, the head of interdealer broker TP Icap's data business. Though new to the broker—and indeed to his new home in London, Sinclair is a veteran of the data industry in Canada, having spent more than a decade running TMX Group's data business. And while Sinclair has plans to exploit the broker's wealth of over-the-counter data assets, it's his focus on customer service and client experience that he's proudest of.

So if you want to know the principles of "Are you being served?" while avoiding hearing the phrase "You've been served," take the lessons from this month's *IDM* to heart. ■

Max Bowie
Editor

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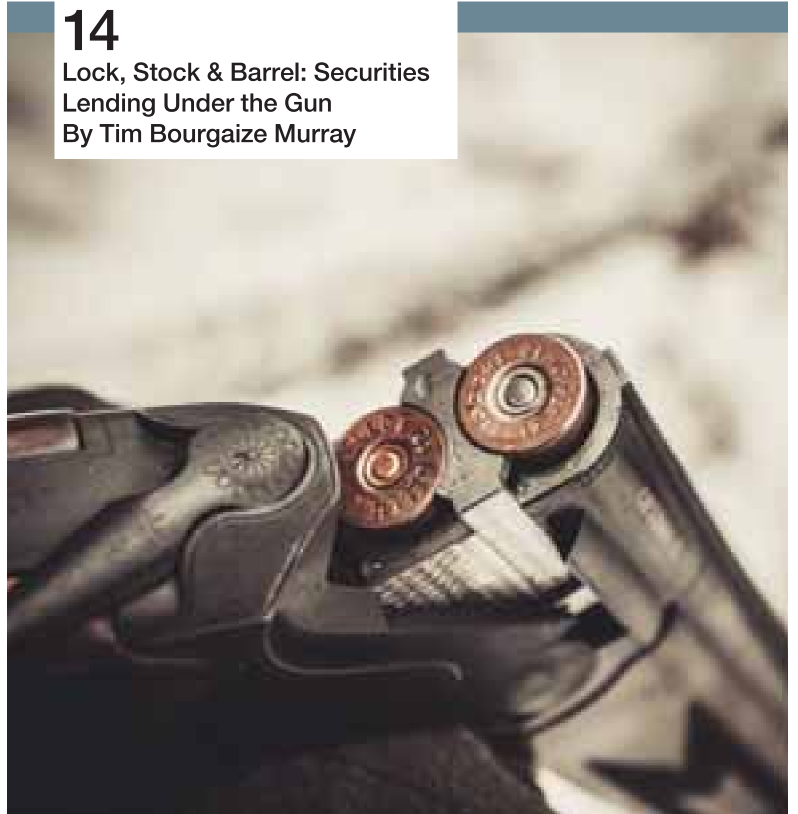

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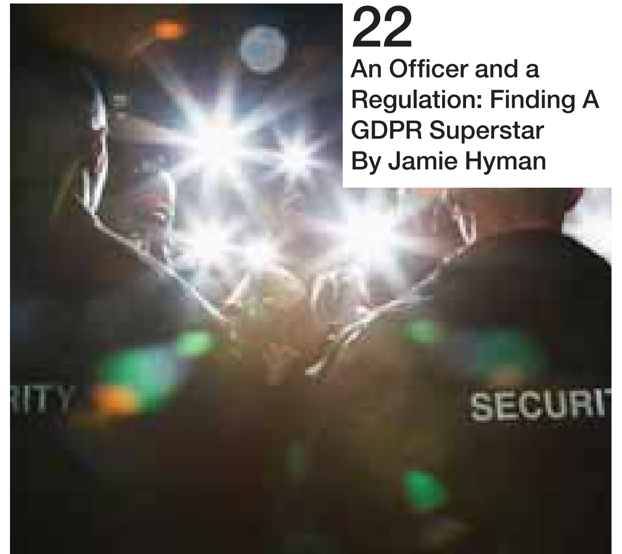

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When the General Data Protection Regulation comes into force, most financial companies will require a data protection officer. With an entire industry racing to meet GDPR's compliance deadline, will there be enough candidates to go around? Jamie Hyman reports.

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Everyone is excited about the potential sources of untapped alpha promised by "alternative data," yet those who work with it are far from excited about the prospect of testing and evaluating unwieldy and sometimes unstructured datasets. Max Bowie looks at the challenges of dealing with these datasets, and how some are using automation and third-party platforms to speed up the process and start generating alpha faster.

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Six years after the collapsed merger between TMX and LSE thwarted his plans to relocate from Canada to London, Eric Sinclair is bringing his start-up spirit and focus on client experience to TP Icap, where he told Jamie Hyman and Joanne Faulkner about his role in transforming a company in the aftermath of major change.

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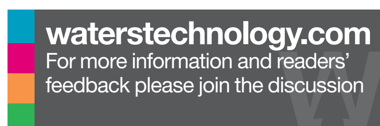

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Indian Exchanges Ban Data, Index Use for Overseas Derivatives

Exchanges and industry groups have expressed concern at a move announced by three major Indian exchanges forbidding the licensing of market data and index data to international exchanges and trading platforms that use the data to create derivative products and set settlement prices.

On February 9, the National Stock Exchange of India, the Bombay Stock Exchange, and the Metropolitan Stock Exchange of India jointly announced that they would stop providing their data for the creation or settlement of derivative products traded on exchanges outside India, to combat migration of liquidity away from the country. The exchanges say they have seen trading in derivatives and indexes based on Indian securities reach "large proportions in some of the foreign jurisdictions… which is not in the best interest of Indian markets."

The exchanges say they will no longer license data for the creation or settlement of overseas derivatives—and will terminate existing licenses "with immediate effect" (subject to notice periods)—and that no exchange or trading platform outside India that licenses the data may use it to create derivatives.

The ban is aimed at stopping liquidity draining from India

The SGX Singapore Exchange, which licenses data from the National Stock Exchange of India to create its Nifty series of index derivative contracts, reassured market participants that its India suite of products would continue to operate as usual, noting that SGX's licensing contract with NSE supports the trading of Nifty products until at least August 2018. "SGX and NSE are long-term partners and have collaborated since 2000 to develop and internationalize India's capital markets," SGX officials say.

SGX also says it is already making plans to "develop and launch new India-access risk management solutions to allow global participants in SGX India equity index family of derivative products, to execute their investment activities with continuity," and will also work with NSE's International Exchange to develop products that could be traded locally in India on the International Financial Services Center within the Gujarat International Finance Tec-City finance hub.

However, while SGX is preparing to ensure continuity of products for investors, others believe the move will create disruption for international markets. US-based derivatives industry body FIA said in a statement that the move "appears likely to disrupt trading on numerous exchanges around the world."

CLS Unveils Predictive FX Report

Alan Marquard, CLS

CLS, a provider of trade processing, settlement and data services for the foreign exchange markets, has released FX Forecast, a predictive data report that helps traders identify potential price movements and what time of day will yield greater liquidity, to reduce market impact. FX Forecast provides an hourly, forward-looking view of the FX markets, including trade volume covering eight currency pairs—Australian dollar against US dollar, euro against sterling, yen and US dollar, US dollar against Canadian dollar, Swiss franc and yen, and sterling against US dollar—for the upcoming five business days, and accounting for the market impact of past and scheduled future economic events based on CLS' warehouse of data.

In addition, the data enables risk and compliance teams to better predict volume and rate changes, to help inform their models and views around volume surges.

"Our position at the center of the global foreign exchange market means we are ideally placed to provide comprehensive and accurate data insights to market participants," says Alan Marquard, chief strategy and development officer at CLS. "Incorporating our forecast data into trading strategies can provide institutions with a better view of trading capacity, enabling them to optimize and time their trades."

Cusip Enhances New Issue Alert Service

Cusip Global Services has released an enhanced version of its New Issue Alert Service, Cusip Pulse, to provide automated and near real-time updates of changes to its database.

The originator of the Cusip identifier says the enhanced version of Cusip Pulse will improve reference data transparency. The Pulse service automatically alerts subscribers when new securities are added, or when a change such as a corporate action, issue suspension, or maturity date update to an existing record occurs.

The release is an upgrade to the previous Cusip New Issue Alert service, which included information only on new issues, not changes to existing records. Market participants will receive updates every 15 minutes, giving them real-time insight into material changes to the underlying reference data in their portfolios and security master files.

Roger Fahy, vice president and COO of Cusip Global Services, says timely, consistent and quality reference data has become critical to marketplace efficiency as regulatory reforms, risk and compliance best practices now demand greater transparency. "Cusip Pulse delivers all Cusip data activity in a frequency and format that meets our industry's single file timeliness needs while freeing up valuable database resources," he says.

SmartTrade Launches Blockchain Post-Trade Solution

SmartTrade Technologies has launched a blockchain-based post-trade solution. The fully integrated service captures and sends post-trade data to a private and permissioned distributed ledger, which guarantees all trades are recorded and cannot be altered. This allows clients to obtain additional proof of transparency and to be prepared for any audits or future regulatory requirements. SmartTrade's hosted clients will be able to subscribe to the global service and access it quickly through an open application programming interface.

Metamako, Redline Ally for Low-Latency Data

Australian FPGA-enabled technology vendor Metamako has partnered with high-performance market data and trading systems provider Redline Trading Solutions to offer an ultra-low-latency, end-to-end platform for automated trading clients. Redline's InRush ticker plant now uses Metamako's network devices to capture and fan-out data from more than 150 global exchanges in five nanoseconds, allowing clients to obtain normalized market data for asset classes including equities, derivatives, foreign exchange, fixed income and commodities.

Aquis Tech Hub Links SIs, Counterparties

Bilateral connection meets Mifid II rules

Aquis Technologies, the financial and regulatory technologies services arm of European exchange Aquis, has launched the Aquis Market Gateway (AMG), a connectivity hub that bilaterally connects systematic internalizers (SIs) and counterparties.

The AMG, which 10 firms have already agreed to use, will connect SIs and counterparties via a normalized application programming interface (API). The relationship between SIs and their counterparties, such as brokers and vendors, will be entirely bilateral and therefore meets stipulations under the revised Markets in Financial Instruments Directive (Mifid II).

Mifid II outlaws traditional broker crossing networks, resulting in the creation of new SIs and growing demand among potential counterparties to connect to these SIs.

As each SI has its own unique interface, counterparties that want to connect with SIs need to undertake bespoke infrastructure projects for each SI they want to connect with. The AMG simplifies this process by normalizing access via the API. The hub uses bespoke, low-latency, high-performance technology from Aquis. The API also allows counterparties to continually adjust which stocks they want to interact with, even on an intraday basis.

Aquis Technologies creates and licenses high-volume, low-latency trading platforms and real-time trade monitoring and surveillance technology for banks, brokers, investment firms and exchanges.

Smartkarma Opens New York Office for US Push

Singapore-based research platform provider Smartkarma has opened an office in New York to help it expand the consumption of its research on Asian markets to US asset managers.

The New York office is headed by Warren Yeh, a financial industry veteran of 30 years, who joined Smartkarma last year after spending 16 years as managing partner of his own boutique asset management firm, Adapa Partners, prior to which he was a managing director at DBS Vickers Securities and a vice president at then-British stockbroker Smith New Court.

"The demand for differentiated and unconflicted research is rapidly rising and US markets are no exception. Our insight providers, based in-country, provide US funds with local insight in areas underrepresented in traditional investment bank research, including IPO/M&A analysis, event-driven special situations, as well as small- and mid-cap company research," says Smartkarma's co-founder and CEO Raghav Kapoor in a statement.

GLEIF and Swift Launch BIC-to-LEI Relationship File

The Global Legal Entity Identifier Foundation (GLEIF) and payments network Swift have developed a cooperation model that enables market participants to link and cross-reference a Business Identifier Code (BIC) assigned to an organization against its Legal Entity Identifier (LEI). This will streamline entity verification processes and reduce data management costs.

The open-source BIC-to-LEI relationship file is built using a mapping process established by Swift and certified by GLEIF. It is published on the GLEIF website in CSV format and will be updated monthly.

Harry Newman, Swift

As of February, more than one million LEIs have been issued to legal entities globally, while of the roughly 130,000 BICs currently assigned, about 45,000 pertain to organizations that are legal entities or foreign branches, and therefore qualify for the mapping against LEIs.

The BIC-to-LEI relationship file will simplify the process of gathering, aggregating and reconciling counterparty information based on interoperability across parallel ID platforms. The file will be relevant to service providers active in the payments and over-the-counter derivatives markets that are concerned with client relationship management or due diligence relevant to know-your-customer and know-your-supplier regulations.

Harry Newman, global head of payments at Swift, says: "The BIC-to-LEI relationships and related regulatory reporting data are in high demand by market participants. Mapping LEIs can be resource intensive, but we have a dedicated team focused on establishing the relationships to the highest quality."

AIC's Sayers: FCA KIDs Clarification 'Very Helpful'

The Financial Conduct Authority (FCA) is giving the green light to managers who want to provide more context to projections required by The Packaged Retail and Insurance-based Investment Products (Priips) regulation's mandatory Key Information Documents (KIDs), but the clarification may not fully resolve concerns that KIDs projections may be unrealistically optimistic.

Priips came into force on January 1, and since then, Priips manufacturers have been required to prepare and publish a KID for each offering. The KID is a stand-alone, standardised document that lays out risks, performance scenarios, costs and other information, all required to be fair, clear, and not misleading.

Ian Sayers, CEO of the Association of Investment Companies (AIC) says the "not misleading" part is the issue, because in some cases the KIDs requirements lead to overly optimistic performance scenarios because the projections are based on performance over the past five years, a period when markets have been strong.

A statement by the FCA on January 24 offered clarification: "Where a Priip manufacturer is concerned that [the] performance scenarios in their KID are too optimistic, such that they may mislead investors, we are comfortable with them providing explanatory materials to put the calculation in context and to set out their concerns for investors to consider. Where firms selling or advising on Priips have concerns that the performance scenarios in a particular KID may mislead their clients, they should consider how to address this, for example by providing additional explanation as part of their communications with clients," the statement reads.

Ian Sayers, Association of Investment Companies

"We still think there are fundamental problems with how some of the numbers and disclosures are calculated," Sayers says, but he calls the FCA clarification "very helpful" and "pragmatic," adding that the regulator is restricted by operating under European rules that are directly binding on the UK and other member states.

He says it is "reasonable" to allow managers and directors to provide context, but adds that "we've still got to think about exactly how to do that, what other information [managers] might provide."

With little space for additional information on the KID itself, he says that while some retailers will take that approach, clarifications will most likely be provided by financial advisors—for example, via supplemental documents provided alongside the KID.

Sayers isn't too worried that managers will find themselves in legal trouble for trying to provide the necessary context. "It would be a very odd regulator that would want to enforce a technical breach of regulation from somebody who was trying to reduce the projected risk," he says. "If it's the other way around [managers downplaying risk], you could see a real problem."

But Sayers believes the FCA's clarification still fails to solve a much larger problem, that when performance scenarios are "extrapolating from the past to the future, they aren't allowing the exercise of judgement."

DTCC Taps Taskize for Speedy Post-Trade Solutions

John O'Hara, Taskize

Post-trade market infrastructure provider the Depository Trust & Clearing Corporation (DTCC) is leveraging technology from fintech vendor Taskize to help users quickly resolve trade exceptions.

Taskize routes issues to the appropriate bank staff, enabling counterparties to resolve exceptions via a secure link as part of the DTCC's Exception Manager solution, which is aimed at establishing a central online industry platform that provides a single view of all post-trade exceptions, analytics to help identify the root cause of operational breaks, and the ability to solve problems at source.

John O'Hara, Taskize CEO and co-founder, says the partnership creates a global network of problem-solvers. "Banks can now effectively resolve settlement, corporate action, static data and funding problems within the ecosystems of the world's two largest CSDs [central securities depositories], including DTCC," he says.

Options Offers NYSE Integrated Feed in Co-Los

Data and IT infrastructure service provider Options has begun offering access to NYSE's Integrated Feed via its connectivity and managed co-location platform in key datacenters serving the New York metropolitan area.

Options is supporting connectivity to the NYSE Integrated Feed—which provides an order-by-order view of trades, market depth, order imbalances, and security status for the NYSE, NYSE American, NYSE Arca and NYSE National equities markets—at NYSE's Liquidity Center in Mahwah, NJ, Verizon's datacenter in Carteret, NJ (which hosts Nasdaq's market infrastructure), and Equinix's NY4 datacenter in Secaucus, NJ, and the Cyxtera (formerly CenturyLink) NJ2 datacenter in Weehawken, NJ.

"As latency-sensitive clients seek the latest liquidity sources, they look to Options to connect them… to the highest-quality data sources available, in the format they need, over the fastest path," says Stephen Morrow, global head of account management at Options.

TRG Licenses DART Terminal Usage Tracker from Vela

Data inventory and contract management platform vendor TRG (formerly The Roberts Group) has struck a deal with Vela Trading Technologies, a low-latency feed handler and data provider, giving TRG exclusive distribution rights to Vela's DART Terminal Usage Analytics tool.

Originally developed by Harco Technology, which was acquired by Wombat Financial Software and merged into NYSE Technologies before being spun out and sold to then-SR Labs (which rebranded as Vela), DART provides in-depth usage tracking for data terminal products. TRG's ResearchMonitor service provides a similar usage tracking capability for web-based subscription content.

TRG plans to integrate DART with its FITS inventory management system, as well as the InfoMatch spend and contract management system acquired with the vendor's recent purchase of Dutch rival Screen Group, enabling users to view DART reports and run usage analytics from within both platforms.

"A lot of our clients had been saying for some time that they want us to go into more depth around usage tracking. So our strategy this year and beyond is to go deeper and do more around usage analysis. FITS and InfoMatch show you what you've got and who has it. Then DART and ResearchMonitor show how that is being used," says Leigh Walters, chief revenue officer at TRG. "It would have taken a long time to build something new that was as robust as DART. Partnering [to license DART itself] is a lot faster and easier."

Another potential benefit is that because DART and ResearchMonitor are both rolled out to clients by deploying a software agent on users' desktops, there's no reason that both couldn't be installed at the same time, even though the agents would be interacting with different hosts—TRG for ResearchMonitor and Vela for DART—Walters says.

Under the terms of the deal, TRG will run sales and relationship management for new business, while Vela will maintain existing client relationships and perform after-sales support and development—though TRG will help collect client feedback and contribute ideas to DART's development roadmap.

"We've had DART for a number of years. It has been a success for us, and we're committed to it as a product. But with our own acquisitions last year in areas around market access, we felt the DART message might get lost, and that we wouldn't be able to do it justice," says Ollie Cadman, head of business operations at Vela. "But when you put it together with what TRG can offer across the spend management space… it makes a stronger proposition overall."

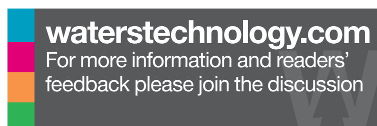
However, Vela will retain all rights to the related but separate DART Entitlements system. "They share the same name, but are completely different products," Cadman says. "As probably the leader in the feed handler and caching space, all our feed handers and the platforms we've inherited continue to need a strong entitlements solution at their center."

B3 Launches Early Closing and Reference Data Service

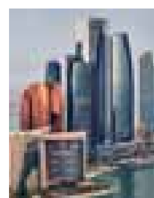
São Paulo-based B3, a financial market infrastructure provider, has announced the launch of UP2DATA, an early closing and reference data service. UP2DATA provides early data on security lists, open positions, trade information, settlement and reference prices, and economic indicators for commodity, interest rate, exchange rate, and equity markets, to help customers automate their processes.

"If a particular market closes at 3pm in Brazil, for instance, information about it will be readily available soon after that time. Until now, customers had to wait for the entire market to close in order to access data that were known in mid-afternoon," says Adolpho Bianchi, information and technology products and services director at B3. He says B3 conducted a study on the data they generate and determined what information could be offered to the market in a streamlined way.

UP2DATA also allows data customization, meaning clients may pick and choose which data to receive. The service can be used by both local and foreign customers, and can be tried for free for 30 days. Bianchi adds that the service will grow throughout 2018.



UAE Banks Partner for e-KYC


Abu Dhabi

A consortium of the United Arab Emirates' largest banks and Abu Dhabi's regulatory body are teaming up to create an electronic Know Your Customer (KYC) utility.

Abu Dhabi Commercial Bank, Abu Dhabi Islamic Bank, Al Ansari Exchange, Al Fardan Exchange, First Abu Dhabi Bank, UAE Exchange and the Financial Services Regulatory Authority (FSRA) of Abu Dhabi Global Market (ADGM) will work together to develop the governance framework and functional requirements of the e-KYC utility. The initiative is part of an inclusive program of ADGM's institutional-focused projects for 2018.

Richard Teng, CEO of the Abu Dhabi regulator, says the positive industry response is a testament to how seriously the region considers KYC and regtech as solutions to industry challenges.

"Banks and financial institutions are seeking more ways to meet KYC and AML [anti-money laundering] requirements and standards. With increased deployment of technology, such as blockchain for KYC and the efficient management of digital identities, greater efficiency and cost-effectiveness can be achieved," Teng says.

Distributed ledger technologies are under consideration to anchor core functionality for the e-KYC utility.

Thomson Reuters, Blackstone Agree $20Bn Financial & Risk Unit Spin-Off

Thomson Reuters has agreed to sell its Financial & Risk unit to a new company minority-owned by the vendor and majority-owned by a consortium led by Blackstone Group. Max Bowie reports.

Data giant Thomson Reuters has agreed a deal to spin off its Financial & Risk business—the division that includes its financial content and technologies—to a consortium led by New York-based investment manager and private equity firm Blackstone Group.

Jim Smith
Thomson Reuters

Under the terms of the deal—which was approved by Thomson Reuters' board on January 30, and is expected to close in the second half of this year—the parties will create a new corporation comprising the Financial & Risk unit. Thomson Reuters will hold a 45 percent stake in this new business, with the remaining 55 percent owned by a consortium of Blackstone, the Canada Pension Plan Investment Board, and Singapore-based investment firm GIC, which manages the Singapore Government's foreign reserves.

Thomson Reuters' Financial & Risk division includes the vendor's real-time market data feeds, terminals, market data distribution platforms and data infrastructure, reference data and evaluated pricing operations, indexes, trading platforms and front-ends, and risk management tools. In 2017, these businesses contributed $6 billion to Thomson Reuters' overall revenues.

"The F&R division has tremendous assets, including a world-leading data business, essential risk and compliance solutions, OTC trading venues, wealth management software, and a strong desktop business. The partnership with Blackstone provides an opportunity to increase efficiency and accelerate revenue growth through innovation and focus on creating uniquely compelling products for F&R's customers," says Martin Brand, a senior managing director at Blackstone.

The assets of the new corporation are valued at $20 billion, and Thomson Reuters expects to receive $17 billion in gross proceeds from the deal, which officials say it will use to pay down its debt, pay taxes and costs associated with setting up the new company, repurchase shares, and to fund growth opportunities in its Legal and Tax & Accounting businesses, which are not part of the deal. The vendor will also retain ownership of its Reuters News service, but has agreed to a 30-year deal to license Reuters' news to the new entity, in return for a payment of at least $325 million per year.

"This deal strengthens F&R and should accelerate its growth and benefit its customers across the sell side, buy side and trading venues. Blackstone's strong relationships in the financial services industry and long and successful history of corporate partnerships will help F&R provide new and innovative products and services, drive further efficiencies and navigate ongoing industry consolidation," says Thomson Reuters president and CEO Jim Smith.

The parties have not announced who will lead the new entity, but say the president and CEO will be a non-voting member of a 10-person board comprising four representatives from Thomson Reuters and five from Blackstone. However, this board is not expected to include Peter Grauer, who serves on Blackstone's board in addition to his role as chairman of rival data vendor Bloomberg. Grauer is expected to remain Bloomberg chairman and to leave Blackstone's board to avoid any conflicts of interest.

Industry analyst Hugh Stewart says a deal such as this was in the cards. "Financial information, markets and trading system infrastructure companies are far more consistently profitable institutions in financial services than banks, asset managers and insurers," and could help diversify and boost Blackstone's revenue stream. At the same time, he says, "a good dose of Blackstone's private equity management style" will refresh the older management styles still held in parts of Thomson and Reuters and "further improve financial performance and optimize the business."

Thomson closed its acquisition of Reuters in 2008 for £8.5 billion (around $17.2 billion at 2007 exchange rates, when the deal was announced), combining the Reuters data and news business with its smaller rival Thomson Financial under the merged Thomson Reuters organization. However, the business was hit almost immediately by the credit crunch and financial crisis, and for several years struggled with declining revenues.

"I am proud of the F&R organization and all of the hard work that has gone into turning around the business over the last six years," Smith says. "Today's announcement reflects the strength of the F&R business and its future potential. We believe F&R will be even stronger with Blackstone as a partner. The transaction will provide immediate value to Thomson Reuters shareholders and our ownership interest in F&R will enable Thomson Reuters to participate in the future upside of the business."

IHS Markit Teams With Cambridge Blockchain for Improved KYC Tools

Cambridge Blockchain chief executive Matthew Commons tells Anthony Malakian the pairing was spurred on, in part, by the looming General Data Protection Rule, which is due to go into effect in Europe later this year.

Data management giant IHS Markit is partnering with Cambridge Blockchain, which will see the former's kyc.com offering combined with the latter's distributed digital identity system.

Matthew Commons, CEO of Cambridge Blockchain, tells *WatersTechnology* that his company's software is set up to store, share and validate IHS Markit's data.

Matthew Commons
Cambridge Blockchain

The traditional way to handle know-your-customer (KYC) compliance is through a hub-and-spoke model, where all the information is fed into a centralized utility. Commons contends that by having a distributed ledger underpinning the system, it's less costly to connect multiple different identity validators and the customer can have more control over their data, which is important, especially in Europe as the General Data Protection Rule (GDPR) will go into full force May 25.

"Basically, instead of having one central party control everything, this allows a distributed system where you can have multiple different trusted entities," he says. "So IHS Markit could validate certain attributes about an investor, [and] perhaps the bank themselves could evaluate other attributes about an investor. And this can be shared in a way that is really peer-to-peer—meaning the data is only going to the parties that are actually using it."

KYC can be an arduous, time-consuming process as it is often one where the data is collected and validated by each fund, separately. So the same articles of incorporation—such as passports or utility bills—have to be separately validated every time an investor on-boards with a supplier or counterparty.

"Where blockchain helps," Commons says, "is you don't need to create one big central database that is going to serve multiple different companies and multiple different countries—that's difficult to do. Even if you can do it from a technical perspective, it's difficult from a regulatory and privacy perspective. So here, the customer or investor data can be shared exactly with the funds where they're investing and doing business, and they're still going through a KYC check every time they make a different investment. Basically, the KYC analyst at the fund or the transfer agent—who is doing work on behalf of that fund—is going to start with a much thicker file of data about that customer, and by comparing that data to those attestations on the blockchain, they can validate exactly who checked what, when about that customer or investor."

Later this year, Cambridge Blockchain will go live with its first full production distributed-ledger deployment along with European Trust Services Provider LuxTrust. The platform will offer business and consumers an environment to exchange and manage personal data online. It will be used to manage the personal data of 530,000 people in Luxembourg, according to Commons. For the future, the blockchain provider will look to create other relationships where they provide the software and the partner provides the data.

> "Instead of having one central party control everything, this allows a distributed system where you can have multiple different trusted entities." **Matthew Commons, Cambridge Blockchain**

A spokesperson for IHS Markit says that they are already presenting the combined offering to clients.

Right to be Forgotten

GDPR bestows certain "rights" upon customers, as well as a litany of privacy mandates; the right for a data subject to receive the personal data concerning them in a commonly used and machine-readable format; the right to be notified of a breach within 72 hours of the company first having become aware of the breach; and the right to be forgotten, whereby the data subject can have the data controller erase their personal data, cease further dissemination of the data, and potentially have third parties halt processing of the data.

It is that last stipulation that might sound at odds with a distributed ledger, as one of the key features of these platforms is that they are tamper-resistant, and if a big block of information is taken out of the middle of a blockchain, it's difficult to validate that the remaining data is correct.

Commons explains that Cambridge Blockchain doesn't store the personal data itself on the blockchain. What they use the blockchain for is to store attestations of that data. Those attestations take the form of a cryptographic proof that is then signed by a trusted party. ■

Balyasny AM Hoists Antenna for Evaluating Alternative Datasets

Antenna will shorten the time needed to evaluate new datasets, and allow Balyasny Asset Management to begin using the data faster than its rivals, the firm's CIO tells Max Bowie.

Chicago-based Balyasny Asset Management has rolled out a service for analyzing third-party alternative datasets faster than traditional evaluations, to determine whether they can deliver better returns for the firm's investment strategies.

The firm developed the platform, dubbed Antenna, because it wanted to be able to evaluate new datasets faster and attract providers of alternative data, which can often take up to a year or more for a fund to properly test and evaluate. Firms without the resources to quickly evaluate new datasets risk falling behind in terms of their ability to exploit them early on when they have greater potential alpha, so BAM believes Antenna will give it an advantage when implementing new data sources.

"Data is increasingly important to our business, and we want to form mutually beneficial partnerships with data providers. Antenna helps our data scientists sift through the rapidly growing data landscape and helps identify those with the highest potential to positively impact our work," says BAM managing partner and CIO Dmitry Balyasny.

Vendors wanting to pitch their data to BAM can now request a login from the Antenna website to upload their data for evaluation by the firm. Antenna provides directions for uploading data, including the data formats and identifiers to use, and allows vendors to name and describe their dataset—including defining how data and signals are listed and tabulated, and how frequently they will update.

Antenna is run in Amazon Web Services' cloud

Antenna can perform an initial analysis of a new dataset in about 20 minutes, which generates a report detailing the data's coverage and identifying any gaps in the dataset or issues that might not work well with BAM's internal processes. If that report is successful, Antenna performs a back-test report, creating portfolios based on the data, and generating predictions for total return and various risk-adjusted returns.

By running Antenna in Amazon Web Services' cloud, the system can back-test large amounts of historical data very quickly—for example, decades of daily data in less than an hour—enabling BAM and potential providers to get an immediate sense of a dataset's worth, and make faster decisions about whether to buy and use the data.

If a dataset doesn't immediately produce the expected returns, BAM talks to the vendor about whether it can adjust how it uses the data to gain better results. In fact, the firm may need to hire dedicated staff to perform this task in the future.

BAM can then present the results to its quantitative teams where the data demonstrates returns for the industry they cover. Antenna currently supports US equities, though BAM plans to expand this to global equities in the first quarter of this year, and to incorporate more unstructured data over the next 12 months.

Soft Launch

BAM soft-launched Antenna in December, and has since had around 10 vendors upload and test data using the service. One of these initial vendors that has used Antenna to support its evaluation by BAM is ExtractAlpha, a Hong Kong-based company that creates its own new data sources as well as aggregating and developing proprietary signals based on third-party content.

ExtractAlpha CEO Vinesh Jha says he anticipates that Antenna will expedite the purchasing process for new datasets, which in his experience can take between two and nine months, as well as give providers of new datasets an opportunity to review and rethink how they present their data for analysis after the initial evaluation. This could not only help the vendors better position and market their data, and make it easier for BAM—or other firms who adopt a similar approach—to see the value in a dataset faster, but also ultimately help them refine their datasets and make them more immediately usable for potential clients, whereas an evaluation period by a quantitative fund or hedge fund is typically an opaque process with little feedback, where the client can be very guarded about giving away anything that might reveal their strategy. ■

TRG Buys Screen, Creating Global Data Cost Management Vendor

TRG CEO Steve Matthews tells Max Bowie the combined vendors will be able to offer a range of products for different client types and use cases.

New York-based data inventory and cost management platform vendor TRG (formerly The Roberts Group) has acquired Dutch competitor Screen Group for an undisclosed sum to create a global enterprise spend management software vendor.

The combined vendor will have just over 100 staff—around 50 from both companies—with offices in the US, the UK, France, Germany, New Zealand, the Netherlands, Singapore and Switzerland, and will serve a combined base of more than 300 clients.

Officials say the move was driven by the potential to offer a broader range of products and services, a truly global support presence, and to be able to focus more on strategy and product development than on duplication and competition.

"We always recognized that we were trying to solve the same problems… and doing it in different geographies, and that we both shared the same vision of being a global leader in subscription management," says TRG CEO Steve Matthews. "We made efforts to grow in continental Europe and Asia, but we were limited because of Screen's success in those regions."

> "We always recognized… that we both shared the same vision of being a global leader in subscription management."
> **Steve Matthews, TRG**

Strategic Focus

Meanwhile, Screen found it hard to gain significant traction in the US market, finding itself always behind TRG and MDSL. "It made us think about where we should focus our energy over the next couple of years," says Screen co-founder and co-CEO Kees Brooimans. "Losing a competitor by combining with TRG will allow us to focus more on strategy. And not having to travel around the world as much will free up time to develop better products."

The deal closed on January 10, though the companies had held discussions—both casual and more serious—for some time. "Soon after I joined TRG, I wanted to understand the landscape, so I reached out to and spent time with Kees and Peter [Screen co-CEO Peter Fruitema]…. So we've been talking for three years. Then towards the second half of last year, we felt there was a tremendous opportunity in the marketplace, and that we could be more effective together than separate," Matthews says, though he adds that the decision was not influenced by rival MDSL's recent sale to private equity firm Sumeru Equity Partners and merger with telecoms management service provider Telesoft.

A key opportunity that the companies identified is the potential to sell their product sets to different tiers of the financial community, and to cross-pollinate some services that would complement both TRG's FITS (Financial Information Tracking System) platform and Screen's InfoMatch system.

"Both FITS and InfoMatch will stay integral to our offering, due to differences in geographies, customer size and complexity. Ultimately, it will give customers more choice," Matthews says. "But we are getting good traction selling our ResearchMonitor solution [a usage-tracking program that originated to serve subscription management issues at law firms] into the FITS community, and we are excited to offer that to InfoMatch clients."

Meanwhile, Screen had developed the concept of segmented profiles to support its trading floor consulting business, which Brooimans says could easily be integrated into FITS' inventory management processes, and is also looking at how to productize benchmarking processes for which Screen was already capturing data from its consulting business.

Though the vendor does not plan any staff cuts, the deal will offer opportunities to create combined teams—for example, the creation of a single, global support model. "Another obvious improvement is in the UK, where TRG is a bit bigger, but our services were complementary. So we can bring those together in the immediate short term to serve that market better than before," Brooimans says. ■

AxiomSL Drives Industry Collaboration On Open Taxonomy for MAS 610

AxiomSL has convened an industry group to help devise a taxonomy that will simplify compliance reporting for the revised Monetary Authority of Singapore 601 update. Wei-Shen Wong reports.

AxiomSL is instituting an industry-wide collaboration initiative to define an open data structure aimed at helping financial institutions streamline regulatory compliance reporting for the revised Monetary Authority of Singapore (MAS) 610 mandate.

In order to establish the taxonomy, the regulatory reporting and risk management solutions provider is partnering with two domestic systemically important institutions (D-Sibs), seven international banks, including four global systemically important institutions (G-Sibs), advisory firm PwC Singapore, and data consulting firm BR-AG.

"The taxonomy will describe what the MAS is asking for and is independent of how banks meet MAS requirements," says Peter Tierney, CEO of Asia-Pacific at AxiomSL. "It's not dictated by the reporting platform."

The group aims to define the taxonomy for the revised MAS 610, which regulates the submission of statistics and returns by banks, by the middle of this year. The joint initiative seeks to reduce reporting complexities and the compliance burden financial institutions currently face. In addition to standardizing interpretations of the MAS requirements, the taxonomy will allow for increased automation of testing and change management, as well as driving higher-quality data and data governance.

Tierney says that once it is established, the taxonomy will be made available to other banks in Singapore for a nominal fee, which will go towards maintaining the taxonomy. There will be no restrictions on who can use it, he adds.

> "The taxonomy will describe what the MAS is asking for and is independent of how banks meet MAS' requirements. It's not dictated by the reporting platform."
> **Peter Tierney, AxiomSL**

Data-point Deluge

The revised MAS 610 includes a new set of reporting requirements covering 340,000 data points in more than 200 pages of forms—a substantial increase from the 4,000 or so data points required of banks today. This presents an onerous task for banks of any size, Tierney says.

"We got together with a group of forward-thinking banks to collectively do some smart analysis on the data that MAS was asking for. We quickly realized that we can come up with a set of relationships—a taxonomy—between those data points, which simplifies the reporting task for the banks," he says.

Not all of the data points the MAS is asking for are unique—in some cases, they could be a permutation of a data set. "For example, if MAS is asking for the total of outstanding home loans extended to non-Singapore permanent residents for public housing, if you break that down, you can organize your data [according] to type of client, nationality of client, type of loan product, and so on," Tierney says. "We are painstakingly going through all 340,000 data points to allow banks to generate these data points by slicing and dicing the underlying data. It's a simple concept, but it's hard for a single bank to analyze it themselves."

The new MAS 610 mandate also requires the breakdown of data by counterparty type multiple times. Using the taxonomy, banks would be able to map this counterparty dimension once and re-use it, so when there is a change to the mapping, the banks would just need to update it in one place and all the returns would be updated.

Abraham Teo, global head of tax products and head of product management for Asia-Pacific at AxiomSL, says the difference between tier 1, 2 and 3 banks will be the volume of data and the complexity of processing required. "For example, a big G-Sib might require consolidation of data from 40 or 50 systems, whereas a smaller player might only rely on two or three. However, on the flip side, all banks face the same mammoth task of

having to collect 340,000 data points for the new MAS 610," he says.

Tierney adds that by collaborating, the founding banks will reduce the effort of compliance across all banks in the industry. PwC will provide advisory services and act as the project management office for the initiative. BR-AG, which has previously worked on a similar model in Europe, will draft the data model and XBRL taxonomy.

Teo says the banks will mainly be involved in reviewing and validating the taxonomy that is produced. "AxiomSL and PwC will work with BR-AG to produce a draft of the taxonomy, which the banks can then review and provide feedback. We hope to leverage the rich knowledge, expertise, as well as synergies, between the nine founding banks to refine the taxonomy," he says.

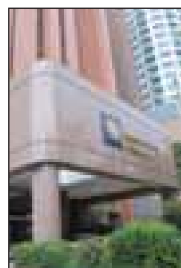
XBRL's Flexibility

Michał Piechocki, CEO at BR-AG, says that the data modeling and taxonomy-based approach, specifically using XBRL, has proven to be effective, particularly in the context of changing financial environments and new reporting mandates. "We have seen its merits firsthand in similar projects developed by BR-AG with the data modeling methodology (Data Point Model) at, for example the Bank of England (BoE), the European Central Bank (ECB), European Insurance and Occupational Pensions Authority (Eiopa) and the European Banking Authority (EBA)," he adds.

Piechocki says that since 2005, financial regulators such as the Australian Prudential Regulatory Authority, Bank Negara Malaysia, the Japanese Financial Services Authority, and the European Banking Authority have been among several that have implemented the open international XBRL standard. Following that, many of them have also adopted the corresponding open international Data Point Model methodology.

"The aim is to build understanding of what is required to be reported and

"AxiomSL and PwC will work with BR-AG to produce a draft of the taxonomy, which the banks can then review and provide feedback. We hope to leverage the rich knowledge, expertise, as well as synergies, between the nine founding banks to refine the taxonomy."
Abraham Teo, AxiomSL



Monetary Authority of Singapore

then to take full advantage of improved data quality based on common electronic format [XBRL]," he says.

In its projects with the EBA, Eiopa, the ECB and the BoE, BR-AG applied the Data Point Model methodology, which is the same used for the MAS forms in Singapore. The Data Point Model is an open data-centric methodology that focuses on the consistent and explicit description of every piece of information required.

The description is based on a single dictionary of business concepts that is used across time and reporting frameworks. The result is a data model built on respective regulations, forms and market practices, and supportive of data exchange and usage.

The first step in these projects is to establish a clear understanding of all underlying regulations as well as the internal and external purposes of the data model and related XBRL taxonomy. The challenge is then keeping up with evolving project requirements and aligning the taxonomy accordingly.

Piechocki says BR-AG has, over the years, worked out ways to address all these key issues. This includes using the Data Point Model's capacity to add and incorporate new frameworks.

SaaS Benefits

In addition to delivering an on-premise deployment, AxiomSL can offer the MAS 610 regulatory data management solution through a Software-as-a-Service (SaaS) delivery option.

Tierney says the SaaS method is a cloud-based approach aimed at the middle of the market, which will help smaller banks with modest local finance and IT capabilities that may be currently generating reports in a spreadsheet. "When you have more than 300,000 data fields to fill in monthly and quarterly, and you have to be ready for all the supervisory questions that MAS may come back with afterwards, the spreadsheets just don't cut it," he adds.

Tierney says the SaaS solution will be especially useful for international banks that only have a small outpost in Singapore, typically with a small finance and IT team, and where there is insufficient local capability to deal with Singapore-specific regulation. It will also enable banks to benefit from enhanced economies of scale, information consistency and operational transparency, he says.

As regulators demand more in terms of reporting of data from financial institutions, Teo feels that technology is key in helping the institutions cope with not only local regulatory requirements, but also with requirements in other jurisdictions. "The fact is, the majority of MAS returns are being prepared using Excel spreadsheets today, and with the MAS' drive towards automation, the introduction of software to assist with the preparation of the returns is inevitable," he says.

But this requires investment, which could be an issue for smaller banks that rely on their head office for this, particularly for an on-site deployment.

Tierney explains, for instance, that to deploy a solution, a bank might need to spin up three or four servers, and maintain a production support team, a change-management team, and an infrastructure team, as well as build and maintain internal know-how on how to run a solution.

"With the SaaS model it is all taken care of by the vendor, and the bank focuses more on the analysis and understanding of the data being processed and the forms being produced," he says.

LOCK, STOCK & BARREL:

Securities Lending Under the Gun

Securities finance has a surprising new battlefront: two lawsuits alleging anticompetitive behavior in stock lending. At the center of the allegations lies a tech play, highlighting the difficulty of finding actionable price and inventory data for borrowers and lenders alike. Will this litigation lead to more transparency and better borrowing, or will the higher stakes just deliver more of the same? Tim Bourgaize Murray explores.

On a humid summer day in the US District Court in New York last August, three US pension funds sued six of the world's largest banks and Equilend, a technology platform owned by a consortium of financial institutions, including the defendant banks. The severity of the plaintiffs' allegation—collusion—was dramatic, too, especially for the traditionally sleepy market in question: stock lending, one of an increasingly lucrative but fickle set of activities known as securities finance.

While the particulars of the suit are interesting on their own—and a second complaint alleging similar issues was filed separately this February—they also point to a trend: Greater expectations are coming to stock lending, and the broader family of securities finance functions, including fixed-income repo, margin lending, and other collateralization activities. Whether considering the dearth of neutral venues out there to execute these arrangements, or the unavailability of data about how they are matched and priced, participants are becoming frustrated with the current dynamics of intermediation, a lack of transparency, and what they see as limited opportunity to negotiate on fair terms. Indeed, some are now frustrated enough to throw their weight around in court. And at the center of this drama lies technology.

> "Most stock lending transactions today can be traded in a standardized way and on electronic platforms. Right now, this market is still in the Stone Age—and we see the banks as certainly putting up a big fight to keep it that way."
> **Dan Brockett, Quinn Emanuel Urquhart & Sullivan**

Mutual Benefits

Securities lending contains a complex and often arcane jumble of processes to manage, much of which is done via over-the-counter (OTC) transactions, which is why sell-side prime services and cross-asset financing units, and custodians' agency lending arms have invested significant financial engineering and effort into cornering this space.

At its core, though, lending is straightforward. A beneficial owner lends assets to a borrower, typically collateralized at slightly above 100 percent of the assets' value, for a certain term and under specific conditions. In stock lending, the borrower—which is usually a prime brokerage, hedge fund or proprietary trader—can use those assets to facilitate trading operations like covering short sales or arbitrage pairing. Meanwhile, the lender—institutional investors, insurers, mutual funds and, more recently even exchange-traded funds—can deploy equities they weren't going to move off the books anyway, and grow additional fund income as a result. Mutual benefits abound.

Yazid Sharaiha, global head of investment strategies at Norges Bank Investment Management, says pension fund giants like Oslo-based NBIM increasingly see the positive advantages securities lending can have for market function, "including aiding efficient price discovery and valuation, income on portfolio inventory, and maintaining good relationships with corporates." Therefore, an asset owner's role in the market in 2018 is ideally active and growing. But while capital-constrained banks dig in, and other intermediaries like custodians fill the breach, Sharaiha says the "search costs" associated with the market have risen. "Transparency has improved over time in the market," he says, pointing in part to greater availability of data in recent years—though matching up lending supply and borrower demand at a reasonable cost remains the challenge.

With those costs and interest each on the rise, attention has turned to quality of transaction information. Stock lending has gradually evolved from a "mostly administrative or operational activity" focused on generating marginal income to offset investment costs, to the status of an investment product—enhancing returns with stock lending strategies, says Robert Levy, head of business development at specialist analytics provider Hanweck.

But this new approach requires more data for analysis and benchmarking—a tough ask in an OTC market with significant customized activity. "Beneficial owners (lenders) have different risk and collateral preferences and counterparty credit constraints," Levy says. "This will lead to different types of securities lending transactions with different rates, transaction sizes and results. Therefore, it is challenging to define a generic stock loan trade, and difficult to know what constitutes a discrepancy unless you have very comparable conditions for comparison."

Yazid Sharaiha
Norges Bank Investment Management

Conversely, for stock borrowers, the problem is often insufficient supply. According to one industry veteran, "The banks have perpetuated a model where the only price is coming from the supplier, so there is no room to negotiate—say for a better price in exchange for more size. Hedge fund borrowers are left asking, 'Why can't we simply borrow more from a big asset manager who is deeply long stock?' At the same time, the biggest beneficial owners, who would be happy to lend more to those same hedge funds for 108 percentage points in collateral, only see a small percentage of lendable inventory going out. They're sitting on $15 trillion to $20 trillion to lend, and only $2 trillion makes it through. All of this, the banks claim, comes back to managing agency lending pools and relationships—to unavoidable complexity. But the fact is, it works for Goldman Sachs and Morgan Stanley, and not for anyone else."

'Still in the Stone Age'

This asymmetrical relationship came into clearer view with the antitrust suit brought Iowa Public Employees' Retirement System, Orange County Employees' Retirement System and Sonoma County Employees' Retirement Association in August. Though certainly only part of the larger securities lending story, the

matter has, more than ever before, exposed the extent of intermediary influence in the space, and stoked calls for change.

"Most stock lending transactions today can be traded in a standardized way and on electronic platforms," says Dan Brockett, counsel to the plaintiffs and partner at Quinn Emanuel Urquhart & Sullivan. "Right now, this market is still in the Stone Age—and we see the banks as certainly putting up a big fight to keep it that way."

That fight, as detailed in a wide-ranging complaint, involves an alleged collusive push by Goldman, Morgan Stanley, JPMorgan, Credit Suisse, UBS and Bank of America to steer stock lending away from centralized clearing, electronification and standardization—thus preserving their OTC foothold in the business. To do so, the complainants say the banks' consortium-owned Equilend technology platform was used to buy up and shelve or undercut upstart platforms' intellectual property, and even—in the case of Data Explorers, later known as Markit Securities Finance—their data services, as well. Bank of America and Equilend declined to comment for this story. The remaining defendant banks did not respond to requests by press time.

QS Holdco Inc., the successor to Quadriserv, the firm behind one of one of those upstart systems, Automated Equities Finance Markets (known commonly as AQS), filed the second suit in early February of this year, arguing that the same collusive activities alleged by the pensions stifled competition and ultimately tanked their company's chances to survive. The backers of yet another platform, SL-X, are considering a suit of their own, sources say.

Though Equilend was originally built to serve as a common back office for lending, the banks eventually used it "as a front-end to manifest decisions about the evolution of the industry collectively—what technology, products and entrants they would support and would not—when in reality they should have been competing vigorously against each other," Brockett says. "It became the primary vehicle for collusion."

In that sense, the alternative systems were not only important competition; their presence would also produce transaction data and shine a light on the market that had never been there before. "From an innovation perspective, stock lending had been a pre-crisis backwater," says Michael Eisenkraft, Bartlett's co-counsel and partner at Cohen Milstein. "Bessemer Trust, Deutsche Börse, Renaissance Technologies—big players were backing AQS in 2009 and sunk $100 million into it. There was enough demand to fund AQS at that level."

Yet AQS struggled and neared collapse within a few years before selling its IP to Equilend in 2016. "The collusion started well before that, with a roadmap of identical decisions, strategy and even statements across several banks we've documented over a number of years," Eisenkraft says, claiming that this collusion is designed to obfuscate that while certain trading strategies that hedge funds engage in, and stock lending supports, are complex, banks' ability to profit by sitting in the middle of the borrowing is easy. "These are standardized loans of publicly traded shares. Transparency is the enemy of conspiracy, and you have clients paying the banks as much as 65 percent of the revenue on a fully collateralized transaction to perform what is a simple matching function. They can charge that because participants simply don't know what they're paying—there's no price transparency," he adds.

Michael Eisenkraft
Cohen Milstein

Preparing for Progress

The growing wave of litigation is a flashpoint, a kind of painful retrospective on the stakes still at hand. But in the present, Basel III-driven capital constraints on tier-one institutions have begun to bite, making it harder for banks to dominate stock lending, opening cracks for new intermediaries and even possible structural reform. And as that plays out, many borrowers, beneficial owners and technology builders alike are learning lessons of the past, and mulling ways to make their own chances in securities lending better.

Unsurprisingly, this starts with data. One approach might be called smarter estimation; the other is more like radical transparency. But both align with the reduced "search cost" noted by NBIM's Sharaiha.

On the supply side, beneficial owners are becoming more informed. Reporting and analytical services like those provided by FIS Astec Analytics and IHS Markit allow lenders to monitor the performance of their agents historically over time. Without this, "investors who are in control of the supply side of the market cannot effectively compare and contrast the various routes to market that are available to them," says FIS senior vice president David Lewis. Being flexible in terms of the collateral that a lender can accept, or durations that they can commit to lend against, also helps make them more attractive to borrowers. "But every lender should bear in mind that they cannot create demand," he adds. "They can only do their best to be the preferred choice when it comes to borrowers borrowing from the market. An efficient route to market, whether via a central counterparty (CCP), or other platform, can help make a lender more attractive. For example, novating trades through a CCP can translate into capital-cost savings for the borrower, which can then be reflected in better fees."

Other tools, like Hanweck's recently designed Borrow Intensity Indicator, similarly focus on optimizing term-rate curves for stock lending, in this case by using proprietary methodology and unbiased data from exchange-traded options markets to project implied borrowing demand over a maturities time-series. In both examples, beneficial owners are using alternative methods, overnight data and a methodical approach to get their inventory out. In short, trying to beat the spread by being smarter. And for his part, Brockett at Quinn Emanuel sees this as a realistic objective for most participants, even if the calculations remain imprecise.

"If you can use past bids and offers and don't have to call your prime and take their quote simply out of hand, that price transparency—even without a neutral platform to transact—gives you leverage and would put pressure on spreads by itself," he says.

Robert Levy
Hanweck

Unfinished Business

Of course, the operative words to that approach include "historical, overnight, and estimate." For some, especially among the borrower community, there is more to do. They argue that borrowing demand is there for the taking—assuming open competition, a willingness to execute, and mutualized cost for the technology and post-trade on the back end. Build it, give them transparency and they will come.

Just as it was 10 years ago, that is the theory behind a small but growing set of all-to-all platforms for securities finance that use tri-party clearing to skip an intermediary altogether, like Tradition's Elixium (a multilateral trading facility, or MTF, currently focused on repo and collateral management activities) and Aquila, an independent peer-to-peer venue about to launch that proposes, among other things, to provide a ticker of real-time, anonymized market data to its active users.

The objective isn't revolutionary so much as a "reasonable" drive, as one source puts it, to carve out new liquidity, rather than standing in line with one's prime broker and paying a premium for the privilege. In short, a genuine market for securities lending, rather than an unnavigable mess.

An area where these systems could especially flourish, says the industry veteran, is hard-to-borrow and high-demand "specials" stocks—lending situations that require visibility into both sides. "Sophisticated analysis programs are able to pass the litmus test when scarcity or difficulty of borrowing isn't high. For instance, they are pretty good in index stocks. But beyond that, they're nothing more than an educated guess. It's like trying to derive the offer price on a swap only from the bid: you can try, and on a 10-year dollar fixed-versus-floating, a liquid market with lots of notional comparables, you'll get pretty close," he says. "But take a cross-currency yen-dollar swap with mismatched maturities and try to figure that pricing out, and you might not get closer than 30 percent off, one way or the other. The same thing holds here. In some situations, having those real basis points and actual borrow costs in front of you is much better than an algorithmic estimate."

Regulatory Unknowns

Whether these concepts take off depends, in part, on the willingness and ability of beneficial owners to free up supply—and straying from their prime relationships is not without discomfort or cost. But more importantly, every source interviewed for this story mentioned another missing aspect that may finally be required to nudge progress along: regulatory influence.

When "detrimental variability" hits lending, it is a legacy of a market design that lacked necessary "contributions from lenders, intermediaries and regulators," says NBIM's Sharaiha, adding that for all the complexity that has grown up around securities lending, the priority should be simple from an asset owner perspective. "Increasing the available information on price and quantity available should be a goal. And this is a task for both data providers and regulators who can encourage increased transparency."

Agreeing, FIS' Lewis notes talk from some quarters of "a regulatory plateau" after Mifid II—a calm after the storm. "But I would suggest otherwise," he says. "[Pan-European regulator the European Securities and Markets Authority (Esma)], through the Securities Finance Transactions Regulation (SFTR) reporting regime expected to go live in the second quarter of 2019, will be gathering vast amounts of detailed intraday information. This will form part of the global drive for data arising from the work of the Financial Stability Board (FSB) and its inquiries into shadow banking, which has led to the Transparency Directive. I would suggest that the market should expect the data that is being gathered will be analyzed over time, leading, inevitably, to additional regulations to manage and control the market."

Other markets could follow the European lead, and indeed the alternative—litigation—has proven far less palatable, and even destabilizing. One source suggests that "three or four" post-trade service providers are considering a bid for Equilend, on the assumption that it may not survive the ongoing suits against it.

If nothing else, though, the state of play has demonstrated just how bizarre securities lending currently is: rightly considered an ascendant investment product in its own right, but not transacted like one, not (yet) regulated like one, with participants on both sides asking only for a fair shake—and feeling around for data in the dark.

Something has to give. As Eisenkraft says, "This market's ripe for it." ■

FEE FIGHT:

Ye Olde Market Data Battleground

Market data fees charged by exchanges continue to be a bone of contention for banks, electronic trading firms and asset managers. And although recent events playing out in the US are adding fuel to the fee fire, frustration levels are rising in Europe too, as Kirsten Hyde reports.

Market data is becoming one of the biggest battlegrounds in the equities market, with banks, trading firms and asset managers uniting against a common adversary: exchanges, which they accuse of indulging in monopolistic practices and raising their fees significantly—particularly for market participants with whom they are often in direct competition—while not being totally transparent about the costs related to producing data, access to which has become a necessity in today's world of complex trading strategies.

While calls to US regulator the Securities and Exchange Commission (SEC) to scrutinize how exchanges' market data fees are determined have focused the limelight on data fees in recent months, trading firms in Europe are now turning up the heat on an issue that has been playing out between brokers and exchanges in equities for years.

Most recently, market participants have directed their ire at Bolsas y Mercados Españoles (BME), Spain's national stock market, which raised its market data fees at the start of this year and set "special cases" fees for operators of venues that use its data to feed into price formation mechanisms on their own platforms. The higher fees particularly hit dark pools—private venues run by banks, exchanges or independent operators—and market

makers and banks registered as systematic internalizers (SIs), which use proprietary capital to trade against customer orders.

Cboe Europe, the operator of Europe's largest dark pool, has said it is "extremely concerned" about BME's move. In a statement, Cboe Europe's chief legal and regulatory officer Adam Eades said, "BME was already by far the most expensive exchange for market data. Its proposed increases in 2018 are truly excessive and anti-competitive."

Virtu Financial, which operates an SI in Europe via its division in Dublin, used its response to a European Securities and Markets Authority (Esma) consultation on another matter relating to SIs as an opportunity to propose that the industry has an "honest dialogue about the rapidly increasing costs imposed by trading venues," saying, "Recently, a sudden, arguably anti-competitive increase by one market operator in its market data fees targeted specifically at the operator's competitors, MTF operators and systematic internalizer customers, was so prohibitive that those participants were no longer able to support that market."

Indeed, UBS MTF announced at the end of December that it would no longer be trading Spanish equities where it uses BME as the reference market because of the "significant increase" in the exchange's market data fees.

"It seems BME is wary of dark pools and SIs potentially taking its market share and one way it can prevent this is to make it prohibitively expensive to use its data," says a London-based analyst.

BME, however, has previously insisted that its fee changes are not anti-competitive. BME declined to comment for this article, but told the *Financial Times* in December that it had discussed the fee package with customers, had cut some trading costs, and was surprised at UBS MTF's move.

Fighting on Two Fronts

The clash between BME and the trading platforms is one dispute in a much wider battle playing out on both sides of the Atlantic over fees that exchanges charge customers.

Market data has become an increasingly important revenue stream for exchange operators as they have moved to diversify away from transactional revenues in the face of lower trading volumes, muted volatility (until recently) and new competition. Revenues have been boosted by the rise of high-frequency trading (HFT), which has made stock market information more valuable and prompted new contract and usage models at exchanges.

Revenues from the data businesses of the world's 13 biggest exchanges grew 29 percent to $5.4 billion in 2016, with data accounting for one-fifth of total exchange industry revenues, according to market research firm Burton-Taylor International Consulting. Its most recent figures show that exchanges' market data revenues for the first half of 2017 totaled $2.9 billion, an increase of 5.6 percent over the first half of 2016.

"The [exchange] market data and indexes segment continues to show significant growth with the sector recording a compound annual growth rate (CAGR) of 11.99 percent since 2011, and has become an engine of revenue growth for exchanges," Burton-Taylor's research says.

At the same time, the lack of volatility across financial markets has hurt the profits of market-making firms, while institutional trading commissions have declined and investors continue to deal with a shift from active to passive investing, placing trading costs—including data— under naturally greater scrutiny.

"Market data is becoming a more important revenue source for exchanges, and with this comes a need to invest in the infrastructure needed to capture, clean and distribute data. However, some brokers and venues feel that exchanges are going too far in raising market data fees each year. Brokers are particularly wary of rising data fees, given the constant pressure on trading commissions, which has just been exacerbated by the Mifid II unbundling rules," says Anish Puaar, European market structure analyst at Rosenblatt Securities.

Anish Puaar
Rosenblatt Securities

One complaint leveled at exchanges is that in today's high-speed electronic markets, market participants have little choice but to buy premium data and other add-ons from exchanges, both to stay competitive and to comply with rules requiring them to execute trades at the best price available in the market at any given moment.

US exchanges do contribute to consolidated industry-wide datafeeds—the Consolidated Tape Association and the Unlisted Trading Privileges (UTP) Plan—but these provide a less complete picture of market activity. Critics argue that because the Securities Information Processors (SIPs) that collect and disseminate the data are slower than exchanges' direct feeds, which also include more comprehensive data, such as depth-of-book and imbalance data, they are compelled to buy the pricier proprietary feeds to remain commercially competitive.

Some studies have found big increases in trading firms' market data bills. A report published at the end of last year by the Healthy Markets Association, a coalition of investment managers, found that market participants who wanted the fastest connections with the most detailed order information from three of the biggest US exchanges paid $182,775 per month in 2017, an increase of more than 150 percent over the $72,150 per month they paid in 2012.

Alasdair Haynes
Aquis Exchange

Other participants spoken to by *Inside Data Management* expressed concern that the rise in market data fees

could create market instability. "Some exchanges have pushed the levels of data fees, especially for non-display application usage, to such extremes that market participants have decided to stop executing orders themselves. Instead, they give away their orders to brokers using broker strategies," says Jork Muijres, product developer at Transtrend, a Netherlands-based asset manager. "It thus creates a market where only a few broker algorithms are active. When different market participants with different investment strategies send their orders to the market using the same broker strategy, this effectively becomes one large order. This reduction in the effective number of different market participants is a recipe for market instability. It harms the price discovery process in the market and it leads to an increase in systemic risk."

Exchanges, meanwhile, reject claims that they are abusing their market power, and counter that market data pricing is fair, that no trading firm is obliged to purchase faster and more comprehensive order data, and that they can terminate feeds or co-location arrangements if they become too pricey. In the US, exchanges also cite investments that have dramatically increased the speed of the SIP over recent years, and argue that market participants have a say in any decisions regarding the SIP through the SEC's public comment process.

They also say that the sale of data is competitive and the cost of proprietary data has risen commensurate with the fragmentation in the marketplace. In the US, exchanges do have some reason to feel vindicated. In June 2016, an SEC administrative law judge sided with exchanges against trade association Sifma in a long-running legal case over the cost of market data, saying that market data sales were subject to "significant competitive forces." Sifma has since appealed the decision, though the SEC has not yet ruled on the appeal.

The situation in the US has become even more tense recently after 24 brokers, traders and asset managers—including Morgan Stanley, Citigroup, Fidelity Investments, Virtu Financial and UBS—filed a comment letter calling on the SEC to review its process for approving new market data fees filed by exchanges. The firms also called on the SEC to force exchanges to disclose more information about fees, and to scrutinize how these fees are determined.

The group argues that securities laws in the US require exchanges to sell market data on terms that are "fair and reasonable" and non-discriminatory, and that exchanges' published rules do not disclose enough cost information related to their market data products to show whether the price increases conform to these legal standards.

Rising Costs

"There has been quite a public spat between trading firms and the exchanges in the US, but frustration has been building in Europe, too," says Tim Cave, an analyst at capital markets consultancy Tabb Group. "The issue with the Spanish exchange has really brought into the public domain the concerns market participants, particularly trading firms, have around the rising costs from exchanges—not just for market data, but for connectivity, execution fees, co-location, access fees, and clearing and settlement."

In fairness, BME was not the only exchange in Europe to make changes to its market data fees at the start of the year. Other exchanges that raised data fees include Nasdaq, Euronext and Deutsche Börse.

While Euronext declined to comment for this article, both Nasdaq and Deutsche Börse say their new prices mean that some users will actually see their costs fall. "Changes that have come with Mifid II, such as unbundling of pre- and post-trade products, as well as a number of other policy changes, can result in more consistent and—in some cases—lower prices for customers," a Nasdaq spokesperson says,

Hartmut Graf
Deutsche Börse

Mifid II, the new pan-European capital markets regulatory framework that came into force at the start of this year, contains requirements for exchanges to create new products and unbundle some existing products, says Hartmut Graf, head of data services at Deutsche Börse. "There were significant changes that needed to be made to the product structure, and some prices went up, others went down." For example, Deutsche Börse introduced a new pricing model for non-display usage, which is use-case specific, so the more intensely a client uses the data, the more they pay, but if they use less, they pay less. It has also lowered its fees for non-professional users trading on Eurex and the Frankfurt Stock Exchange, cutting the cost of its Xtra Level 1 retail package from €15 to €4.90.

However, he notes that the exchange's fees include costs of supporting the significant amount of technology required to distribute its data—more than three billion price messages a day—and that these costs get passed on to customers.

More generally in Europe, exchanges cite the additional costs of compliance with Mifid II. For instance, Mifid II's Regulatory Technical Standard (RTS) 14 instructs exchanges and trading venues to make pre-trade and post-trade data, which has traditionally been bundled together, available to the public in an unbundled fashion. Exchanges have to disaggregate their data by asset class, country of issue, currency and whether the data comes from auctions or continuous trading, as requested by clients, which creates an added administrative burden.

Jork Muijres
Transtrend

Still, some industry observers have questioned whether the exchanges' price increases are in the

spirit of Mifid II. "Exchanges are going to have to produce a lot more data as a result of Mifid II, and the cost of complying with Mifid II is one of the reasons they're giving to trading participants for the increase in some of their data fees. But actually, Mifid II is meant to be helping to control costs for market participants," says Tabb Group's Cave.

Alasdair Haynes, CEO and founder of Aquis Exchange, which offers a subscription pricing model that includes data, says talk of reduced fees at some exchanges belies a resulting overall net increase in revenues. "I've heard exchanges say that prices are going down for lots of people, but, net, they are going to make more money out of data than they have in previous years. Using regulation as an excuse to raise data costs goes against what the regulation is trying to do. Data is a billion-euro business in Europe. We're not talking about small amounts of money here," Haynes says.

Industry observers have also questioned how effective Mifid II will be in addressing the perceived high cost of market data. When the Mifid II negotiations were under way, some participants had hoped that the regulation would introduce caps on fees. Esma, however, said it decided against price capping as it did not want to hamper investment, innovation and product development.

The final rules state that exchanges and other trading venues must price their data on a "reasonable commercial basis," that their fees should be based on the costs of producing and disseminating data "whilst being allowed to obtain a reasonable margin," and that data should be provided on a non-discriminatory basis so that all customers in the same category are offered the same price and other terms and conditions.

"Mifid II does give exchanges a lot of leeway in how they determine their market data fees," Rosenblatt's

Roger Rutherford
ParFX

Tim Cave
Tabb Group

Puaar says. "While regulators did consider stricter price controls during the Mifid II negotiations, it's not really the domain of financial market regulators to intervene on these kinds of competition issues."

However, the unbundling of pre- and post-trade data, as outlined in RTS 14, should give customers with a narrow focus more flexibility and choice, and potentially reduce their market data spend, he adds.

Consolidated Tape or More Red Tape?

One idea that has been mooted in Europe is the introduction of a US-style consolidated tape for equities, a provision that is mandated for other asset classes in the Mifid regulation, as a means to provide a central source of prices.

While the industry has previously debated creating an equity consolidated tape, it has failed to materialize. "Mifid II will give the industry one more chance to create its own consolidated tape, but there doesn't seem to be the appetite for it, possibly because there is little commercial imperative," Puaar says.

Haynes agrees that the industry is unlikely to create a consolidated tape on its own, and advocates that regulators mandate it. "I believe it is necessary for a consolidated tape [for equities] to be introduced in Europe. I have always believed that the industry will not bring it in on its own, and it will have to be mandated. It was an error not to have put in a mandate about it in Mifid II. There are lots of people out there who have wanted to see a consolidated tape, but it won't happen unless it is mandated as there are too many vested interests," he says.

In addition to calls for a mandated consolidated tape, there have also been calls for regulators in Europe to step in and examine the overall issue of rising data costs, despite the authorities' hands-off approach to exchange market data fees so far. In its response to Esma's consultation on SI pricing, Virtu Financial said that escalating costs are having "profoundly negative effects" on the availability of liquidity and on price formation in the European Union. "These increasing costs are evident across all areas of the trading lifecycle, from market data… through to clearing and settlement," the firm said in its response. "The spirit of the regulation seeks to ensure a 'level playing field between means of trading.' As such, we respectfully suggest that it is expedient for the relevant European authorities and institutions to assess whether these developments are beneficial or detrimental to the markets [and] whether Mifid II is the catalyst for these cost increases; it is frequently being used to justify those increases. This issue is not unique to the EU, but it is an opportunity for the EU to take a leadership role in reining in the problem."

Calls for "shining a light on opaque costs" have also come from other quarters in the financial markets. Roger Rutherford, COO of electronic dealing platform ParFX, says that regardless of asset class, financial markets need market infrastructures to take the lead on transparency, fairness and equality, and to make market data affordable and cost-effective for everyone.

The long-fought battle over market data fees shows no signs of abating. But what were once individual disputes over fees are now crystalizing into organized battle lines. In the past, these battles were fought by market participants creating their own platforms for trading and post-trade services. The question is whether the situation will descend to all-out war (and whether that will deliver the desired competition and lower fees), or whether regulators can broker a lasting peace. ■

An Officer and a Regulation: Finding A GDPR Superstar

When the General Data Protection Regulation comes into force on May 25, most financial companies will require a data protection officer. With an entire industry racing to meet GDPR's compliance deadline, will there be enough candidates to go around? Jamie Hyman reports.

At 119 pages, the General Data Protection Regulation (GDPR) is a novella of new rules intended to strengthen and unify data protection within the European Union. With most of the finance industry—both within the EU and around the world—falling within scope to at least some degree, thousands of market participants are working to meet GDPR's compliance deadline of May 25. Some of the industry may be tired, as GDPR takes effect less than five months after the revised Markets in Financial Information Directive (Mifid II) implementation date of January 3. So it might be understandable that when planning their GDPR projects, firms may have overlooked or downplayed the three relatively brief articles contained within the regulation's Chapter 4, which outline the rules around designating a data protection officer (DPO).

"My educated guess is that I don't think most people are ready," says Naomi Bowman, a managing director at Berkeley Research Group (BRG), who joined the consultancy last year to focus on governance and compliance, having previously served as COO for HSBC's global legal function.

Who Needs a DPO?

GDPR stipulates that an organization must establish a DPO when its core

"For the sake of running an organization successfully, I think you need to have people who are brave and willing to be accountable. The DPO would probably need to be somebody pretty heavy-hitting, someone who already knows how to operate around a board table, someone who already knows—particularly in the large organizations—how to navigate these matrix organizations, and someone with fantastic influencing skills." **Naomi Bowman, Berkeley Research Group**

capacity includes regularly or systematically monitoring data subjects on a large scale, or when an organization processes a large amount of "special categories" of data, which can include personal information such as ethnicity or political affiliations.

"At the moment, there's a general assumption, quite rightly, that banks are focusing on client data," Bowman says. But, for example, a financial institution that offers securities and has an investment banking arm would be holding information not just about clients, but counterparties, as well. Therefore, she says, most banks and firms will need a DPO.

Elliot Rose, a digital trust and cybersecurity expert at PA Consulting, says it's a "no-brainer" that large organizations will need a DPO," but adds that these firms' medium-sized clients are debating whether the officer is necessary to comply with GDPR. PA Consulting is currently working with several asset managers that are leaning toward not designating a DPO, because although they are processing a lot of data, "it's not truly sensitive information," Rose says.

Should a firm determine it requires a DPO, that is merely the first of many decisions that must be made in the name of GDPR compliance.

What Does a DPO Do?

GDPR specifies that the DPO "is involved, properly and in a timely manner, in all issues that relate to the protection of personal data."

There are other requirements: The DPO must be independent and cannot receive instruction on how to exercise his or her tasks. Nor can the officer be fired or penalized for carrying out their data protection duties—a specification that Bowman calls "good governance."

"This is the nature of the risk and regulatory environment that we live in," she says. "If you're going to put experts and experienced leaders in place to oversee these kinds of compliance functions, you have to make sure that there is a safe space for them and a clear reporting line back to the board so that they can actually tell the board the honest truth."

Data protection officers are sworn to secrecy about their data protection roles, but are allowed to fulfil other tasks within an organization, provided there's no conflict of interest. GDPR also states that the DPO must report directly to their organization's highest level of management.

Based on those parameters, there is a debate under way within many organizations as to whether their best move is to appoint a DPO from within, or hire an external candidate to fill the role.

Bowman says GDPR's stipulations for DPOs indicate that "these are going to be pretty senior-level positions with a huge amount of responsibility. I wouldn't be surprised if larger players with the available budgets appoint somebody independent."

However, that might prove difficult. The "perfect" data protection officer must be willing to stand up for what is right in front of a board of directors or a CEO, Bowman says—something not everyone is comfortable doing.

How Do You Find a DPO?

"For the sake of running an organization successfully, I think you need to have people who are brave and willing to be accountable. The DPO would probably need to be somebody pretty heavy-hitting, someone who already knows how to operate around a board table, someone who already knows—particularly in the large organizations—how to navigate these matrix organizations, and someone with fantastic influencing skills. When you narrow that down, plus the fact that [DPOs] need to have a very good understanding of data security and date privacy, I'm scratching my head at the moment, thinking that's going to be quite a small pool of people," Bowman says.

Rose confirms there is a lack of suitable candidates. "We're already seeing a shortage," he says. "I'm already seeing clients at the moment who have decided to get a DPO and actually can't source the right level of candidates. We're seeing some very large salaries being offered out there to try to incentivize people."

And with the GDPR deadline just two months away, what are the options for an organization unable to secure a DPO?

Bowman says she is seeing the emergence of dedicated in-house data privacy teams that did not exist five years ago, and "the DPO would probably slot quite nicely in there."

Mark McQueen, senior advisor on best practice and process design at the EDM Council, also works with a GDPR workgroup that includes representatives from the buy side, the sell side and large full-service banks, tasked with determining GDPR compliance best practice. He says these firms see the DPO as a privacy control role, rather than a data management role, and therefore would be separate from a chief data officer's team. That means, McQueen says, that many organizations may already have a DPO within their privacy control functions, but are simply calling that employee by a different name.

"Depending on your organization, your structure, yes, there has to be a top DPO, but it's highly likely that there will be some sort of federated activity for that DPO through your organization," he says.

However, Rose suggests another option: "Because there is such a shortage of resources, I think you'll find a market being driven by services firms, maybe some law firms, and consultancies like ourselves, coming to market offering DPO-as-a-service," which would offer the advantage of independence as well as consistency, as outsourced DPOs would contract with a number of clients, and possibly work with a regulator, he says.

"I always get asked by clients, 'Are we ahead of the curve, or behind the curve? Are we doing enough compared to other people?' There is a level of comfort that people might seek, if they buy [data protection] as-a-service: they've got somebody with a greater oversight across a number of companies and organizations," Rose adds.

For organizations considering designating a DPO from existing staff, the discussion often focuses on whether the chief information security officer (CISO)—if they have one—can act as DPO, and if not, how the two roles will function side by side. But Rose warns appointing the CISO to DPO is the wrong move.

"The whole point of the DPO is independence, and therefore the CISO, yes, should make sure the controls are in place, but the DPO is that independent assurance and reporting line of escalation up to the board to ask whether the business is doing the right thing [for data protection]. There is a danger, there, that if you give the reporting line to somebody who also is responsible for putting in place the controls, [organizations] don't have that necessary separation and independence to call things out when they're not quite right," he says.

Bowman says it depends on exactly what responsibilities are given to the DPO, but she shares Rose's concern about maintaining the DPO's required independence, and questions where a single person can perform both roles.

"If the DPO has monitoring rights and oversight rights so that effectively, they are going out and conducting regular compliance visits to different parts of the business, then that is probably a full-time job in itself. In a more simplified organization that doesn't have multiple lines of business, doesn't have hundreds and thousands of staff, you may be able to combine them," Bowman says. "[But] by combining those roles, can the individual who is nominated as DPO operate independently, and can you still make sure that they are not penalized for the work that they undertake with respect to being the DPO? That is the key question for organizations."

Regardless of the approach to fulfilling the role, Bowman says compliance is not simply a matter of designating a DPO. Internal nominees need time to decide whether they want to take on the role, and for newly hired DPOs, organizations not only need to ensure a GDPR-appropriate reporting line and governance structure is in place, but they need time to get their designee up to speed.

"That individual, completely new to an organization, is going to have a very steep learning curve. In these very siloed, very large organizations, it can take up to six months or a year to get your head around navigating the organization, let alone actually getting to grips with doing the job. As much as an organization can say on paper, 'Yes, we've got a DPO by the May deadline,' I think the actual impact on the human being who is undertaking that role is going to take some time," she says.

Will DPOs Mean Better Business?

A continuing theme when discussing regulations is that compliance is arduous, but there is the prospect of business rewards down the line for organizations that do a good job. GDPR follows that theme via its GDPR specifications, provided that organizations fulfill the requirements as part of a larger information security and data privacy plan.

Mark McQueen
EDM Council

"[Firms'] data management control function needs to be able to provide the tools and the capability to execute what's required of data and the data management process, getting into the physical execution of things like encryption and anonymization of data—so there, organizations become a partner with their data management capabilities and their technology capabilities," McQueen says. "But the actual execution of all of these things is out in the business process. It's not something that can be done at the enterprise level."

In some cases, GDPR gives a data subject the right to pause the processing of a transaction, which impacts the process of the business that is executing the transaction. "That is not a data management activity," he says, although organizations may need to capture data explaining when the pause was requested, whether the pause happened, how long it lasted, when the transaction restarted, and whether the business addressed and removed the issue that prompted the pause. "That may be data that your business process needs in order to be able to execute that requirement, but that's not a data management process; that's introducing new data into your business process so that you can execute this requirement."

It follows, then, that firms should use the opportunity to inventory their current data infrastructure and examine how, exactly, they are executing information security and privacy activities, as well as determine whether those functions are executed in the same way across the entire organization. Those activities, McQueen says, led to the big question: Who owns the GDPR process?

"That GDPR process, in our view, should be owned by the control function of information security, however the organization is structured. This is embedded in the actual business process," he says, which paves the way for the control function to actually ensure and improve that business process via new information about how different departments are modifying their processes to execute the GDPR requirements.

Rose says he believes that many of the firms who are rushing to get GDPR compliant and throwing resources at the problem are failing to consider how data protection will operate after the May deadline.

"This is an ongoing obligation," Rose says. "It's a little bit like health and safety. So a business wants to run this as efficiently and effectively as possible going forward."

He sees opportunities for large organizations to increase efficiency during their compliance process, and says they should take stock of governance around the DPO function, with consideration as to whether it makes sense to instate privacy leaders in different regions or to create a central team that engages with the business in different areas. "I would argue that it's better for the business to appoint privacy leaders and country privacy advisors so they actually bought into the process, rather than having it come to them," Rose says.

In addition, he says DPO service providers are creating entire toolsets with the goal of making GDPR compliance as efficient as possible—though so far, he is not seeing uptake by end users rushing to comply by the regulation's deadline. "I think a lot of organizations are forgetting about that at the moment, just thinking about getting this in place. Post-May, people will look at cost of this, of maintaining it on an ongoing basis."

Specifically, Rose says, the DPO needs to consider business structure and next steps. "We absolutely need to comply with the regulation, but are there ways in which we can make sure the DPO is clear about explaining to people what data they can capture and how that can inform and deliver new services going forward? I think that's a task for the DPO role that people have not thought about at all." ■

HARD LABOR:

Dealing With Alternative Data

Everyone's excited about the potential sources of untapped alpha promised by "alternative data," yet those who work with it are far from excited about the prospect of testing and evaluating unwieldy and sometimes unstructured datasets. Max Bowie looks at the practical challenges of dealing with these datasets, and how some market participants are using automation and third-party platforms to speed up the process and start generating alpha faster.

At the height of the 1849 Gold Rush, the non-native population of the California territory swelled from less than 1,000 to around 100,000—with the city of San Francisco alone growing from 1,000 to 20,000 people—as miners, panhandlers, their families, and all the associated workers and businesses flooded into the territory in the single-largest mass migration in American history. And while many struck gold and some made small fortunes, those who made big fortunes were either able to excavate gold on an industrial scale, or simply got there first.

And in today's financial markets, just as in the gold rush, when you strike a seam, you have to move fast to mine its value before others start digging in the same place, and approach it as industrially as possible.

But how can you industrialize a process where each and every dataset represents a completely new terrain to dig in? And how can firms speed up the process of evaluating which seams will yield the richest results? Because as any "49er" would know, the hardest part isn't digging out the gold once you find it; it's knowing where to dig, and then the arduous task of digging your way to the gold.

"Generally, for any data—and in particular any non-traditional set of data—any quantitative or fundamental asset manager or hedge fund manager

still has to go through the same early-stage process of evaluating the core components of the data, such as coverage, relevance to the universe of assets you're interested in, predictability of future returns, consistency, and the ability of the source to provide it on a repetitive basis—and yes, that does take a fair amount of time," says Brian Buzzelli, senior vice president and head of data governance at Acadian Asset Management in Boston.

Yin Luo, vice-chairman and managing director of quantitative analysis, strategy and economics at Wolfe Research, which advises buy-side firms on which datasets will generate the most alpha, says the length of this process depends on the nature of the data itself. "Structured data takes much less time than unstructured data. If the data is numerical, mapping it to tickers is much faster. We can load data in probably about a day… [and] if we prioritize it, the background-checking process might take two to three weeks," Luo says. "The big time commitment is having an analyst work with the data and a domain expert to design the result. If we understand the domain well, it might take two to three weeks to design signals. So the shortest possible time is at least one month, up to three months. But if the data is unstructured and we have to hire an external consultant, it could take up to a year. So it is very time consuming."

Missing Out

And this delay prevents firms from using data that could deliver immediate benefits. "There is a huge race under way in the industry right now to be able to leverage alternative data that delivers some unique edge that you won't get from traditional market data," says Philip Brittan, CEO of Crux Informatics, which pre-engineers data to make it easier to use. "Hedge funds routinely tell us that they have 100 datasets on backlog and they only got through evaluating six last year… so they are missing out on putting good data into production."

To a large extent, the speed at which firms can get up and running with a new dataset depends on the amount of time and domain expertise alternative data providers have invested in their data to format it and make it easier to use.

"Imagine you have a data scientist come into your firm with great Python skills to analyze the market data…. There is a lot of structural work required to be able to do that, and the scientist may not have the knowledge or time to do that engineering work," says Mark Christine, CTO at Lux Fund Technology and Solutions, whose Transcend platform is a cloud-based technology platform for automating buy-side processes and applications. Once it spotted growing interest from its asset manager clients in alternative data, the vendor decided to proactively add support for alternative datasets to Transcend, rather than responding to one-off requests. "Funds shouldn't be suffering from long evaluation periods—the data curators should have done that."

However, this isn't always the case. In fact, Wolfe Research's Luo says that in his experience, more than half of alternative data vendors "haven't even done the basic job [of validation]. They just realize they have a lot of data that they can maybe sell. But there is no mapping to companies or securities, and the data can be very messy."

Though he says Wolfe has a proprietary mapping process that takes "almost no time at all," others cite poor identifier management as a key cause of delays.

"It depends on whether a data source has lined up the identifiers—that's where vendors can help," says Stephen Malinak, chief data and analytics officer at San Francisco-based alternative data provider TruValue Labs, citing vendor identifier schemas such as Thomson Reuters' PermID as a means to simplify mapping of alternative data to traditional data. "When we needed to test our data on Quantopian's system, I had to manually connect our data to their IDs."

Benjamin Quinlan
Quinlan & Associates

Automation

As a result, in addition to Crux and other third parties seeking to automate processes and shorten the time to market for new datasets, some end-user firms have created their own platforms precisely to automate and shorten this initial process of reviewing and hammering data into shape.

For example, Boston-based Quantopian, which describes itself as a crowd-sourced quantitative investment firm, makes its own platform available as a sandbox environment for quantitative analysts to test trading strategies and datasets. Quantopian's platform has 170,000 users per day performing tasks that require evaluating and analyzing datasets, and has 57 datasets, as well as US exchange-traded equities and futures price data, and Morningstar fundamental data.

"We're a platform for anyone to explore investing ideas using tools that are usually embedded at asset managers. We've opened these tools and data up to the world for free and said, 'Come work with data, see if it is predictive, and if you can build an algorithm," says Caroline Sherman, vice president of investment product strategy at Quantopian. "By using our platform, investors are able to slash the time they would usually have to spend getting the data into shape before they can analyze it, and so they are able to get a sense of whether there is a viable signal in the data within a couple of days, rather than weeks of analysis."

Meanwhile, Chicago-based Balyasny Asset Management recently rolled out its Antenna service, which analyzes third-party alternative datasets faster than traditional processes—perform-

ing an initial report detailing the data's coverage and identifying any gaps in the dataset or issues in about 20 minutes, and a back-test report that analyzes decades of daily data in less than an hour—to determine whether they can deliver better returns for the firm's investment strategies without having to spend up to a year or more properly testing and evaluating new data.

"Antenna helps our data scientists sift through the rapidly growing data landscape and helps identify those with the highest potential to positively impact our work," says BAM managing partner and chief investment officer Dmitry Balyasny, adding that it will help the firm cultivate "mutually beneficial partnerships with data providers."

One of the first vendors to go through Antenna's evaluation process is ExtractAlpha, a Hong Kong-based company that creates its own new data sources as well as aggregating and developing proprietary signals based on third-party content. CEO Vinesh Jha, a quantitative analyst with a background in mathematics, and career on the sell-side research and proprietary trading desks of large Wall Street firms and at analytics provider Starmine, says he anticipates that Antenna will expedite the purchasing process for new datasets—which in his experience can take between two and nine months—as well as provide feedback to help vendors refine their datasets, whereas an evaluation period by a quantitative fund or hedge fund is typically an opaque process where the client can be very guarded about giving away anything that might reveal their strategy.

"The way we work—especially with quant funds—is a well-established process, but is not very transparent. A firm signs our non-disclosure agreement, and we give them historical data to test, along with a lot of documentation about what it means and how it is formatted. We do a kick-off call, then we let them run with it, and often we don't hear a lot back—there's a lot of secrecy about how firms are using data. Then they decide whether to move forward," Jha says. "So it's not very transparent, and it's not centralized. Some of these firms have many operational groups, and we could be answering the same questions across several of these."

A potential solution to this, and one aspect of BAM's and Quantopian's platforms, is the concept of crowd-sourced aggregation, or "BYOD: bring your own data"—that users upload their desired datasets to evaluate, and vendors upload their own data in order to get exposure to these firms. The result is an a la carte selection of potential data sources.

"The concept of a 'menu' of this kind of data doesn't really exist in this space, so that's why it's something we care about and want to accomplish. But it takes a lot of engineering work to get all that data together and usable in one place," Sherman says. "There is an enormous amount of mapping required to be able to use [alternative] data in the way you want, and we take care of that for you."

A perhaps-intended consequence of the difficulty of dealing with alternative data is that it limits those who are able to extract its value, and therefore preserves alpha where a flood of new participants would exhaust any advantage. "Until today, different companies had wildly different approaches to data. There are definitely disparities across the industry in terms of firms' ability to take advantage of this data," says Quantopian's Sherman.

"Evaluating data has gotten a lot easier—there are now tools and third-party providers. But even if the data were free, it still requires investment to analyze it, and a lot of people seem to underestimate the costs associated with that—it's a non-trivial task, for sure," says Thomas Schmelzer, head of research at a Geneva-based asset manager.

Caroline Sherman
Quantopian

For example, sources acknowledge that most firms seeking to leverage alternative data don't have the resources—either in terms of data science teams to analyze the data, or funds to acquire datasets—of these firms, or of Acadian, which "can run through that early analysis of data very quickly," and can afford to "spend a lot more time… applying our intellectual property. And we have to run a lot of simulation," Buzzelli says. "When we look at alternative data, in the next step of evaluation, we run an extensive set of correlations to determine whether there really is a signal in the data over time. But new datasets can be hard to back-test because that data may not have existed before. So part of the challenge around alternative data—especially from a quantitative perspective—is the lack of historical data. So to really put a new dataset into an investment process, you're going to have to look beyond the data itself. Since many of these new datasets don't have 10 or 15 years of history available, we look at other factors, such as the history of the vendor itself, and the consistency of their existing data."

Stewardship and Protection

Protecting that IP—or the value of a provider's dataset—is essential for those who have already completed the heavy lifting associated with using alternative data, in order to protect their first-mover advantage as long as possible.

Tony Ho
Sandalwood Advisors

"The most active people in the alternative data space would be quant and sentiment-based hedge funds. The long-only market and big investors have only recently started talking about it—they may have looked at it or hired a data scientist, but they haven't really done much as yet, whereas other houses like TwoSigma have been working on this for some

time, building in-house capabilities and proprietary processes," says Benjamin Quinlan, CEO of Quinlan & Associates, a Hong Kong-based strategic consulting firm. "When you buy a vendor solution… it's not unique to you, so that alpha-generating capability is diluted… so firms need to think about how to erect barriers to entry—for example, negotiating exclusivity, or creating proprietary analytics."

But not all datasets are created equal—especially those not originally created for the rigors of finance.

"Proliferation of data is significant: Everybody is capturing data about everything. But not all of this is necessarily interesting to an asset manager. The data may be of interest to a marketing firm, for example. But it's another thing to have the ability to satisfy some of the fairly rigorous set of criteria before it can be deemed a viable dataset in the financial industry, and specifically in asset management," Acadian's Buzzelli says. "We would want them to be very reliable and well-stewarded datasets that could be used in our decision-making process."

However, the same levels of data stewardship considered routine at an asset manager may simply not exist for some new datasets, based on their immaturity and that their creators may not be finance professionals and not be familiar with those standards.

Brittan says a side benefit of using a third-party platform like Crux to pre-evaluate and process data is that because Crux ingests and stores the data initially, firms don't have to perform compliance checks on every single dataset they want to look at; only those they choose that have already passed Crux's evaluation.

But ultimately, firms may not have a choice in whether or not to adopt alternative data as part of their investment processes. "Fund managers have a fiduciary duty to invest in the best interests of their investors. And if you're making decisions without looking at any and all datasets—and especially if your competitors are looking at something you're not—then we believe you are not fulfilling that duty," Quinlan says.

Yin Luo
Wolfe Research

Brian Buzzelli
Acadian Asset Management

On the other hand, some question the amount of value really being created by alternative data, given the challenges of using it, compared to the amount of hype in the market. For example, Schmelzer suggests that firms who talk about using alternative data may be overstating their case for other purposes.

"The purpose of working with some of these exotic datasets is often not [directly] to make money, but is often a pure marketing exercise. For example, a hedge fund may say it uses satellite data, but in reality only $2 million out of $3 billion in assets under management is actually applied to that. But it looks impressive, and you can build an interesting story around it, and maybe you collect another $100 million in assets because people think you're smart…. And that's not a totally negative thing, because at the end of the day, marketing is crucial for a fund. It's totally our job to make some of the ideas appealing," Schmelzer says.

Indeed, many fund managers realize that "if they don't invest in alternative data, they will ultimately fall out of favor with investors," Quinlan says, though he cautions those firms not to use the data cynically. "The use of alternative data can't be an ad-hoc approach: It needs to be strategic and systematic, and you need to give it the right weight—you can't just throw in alternative data as an overlay to fundamental analysis."

And while many firms are excited about the opportunities offered by alternative, many are equally wary of whether they can move fast enough to exploit its alpha before others dilute its value.

"Many portfolio managers and analysts are worried about the dilution of data as more hedge funds adopt it, [but] the decay rate is partly a function of how correlated a dataset is: If the data is highly correlated with company earnings and it is easy to use, many analysts and artificial intelligence applications would generate the same view on a stock, so data will get priced into the stock quickly. However, there are many types of datasets out there that require thoughtful interpretation, and also if you combine them with different sets of data, you would generate a different set of conclusions. We have seen many investors looking at the same dataset but generating different views on a stock," says Tony Ho, managing director and co-founder, Sandalwood Advisors, a Hong Kong-based provider of analytics based on alternative data-

But even if alpha decay means that alternative datasets will only deliver their most impressive returns for shorter periods as more people start using them, there is still a silver lining to their increased usage: commoditization. The influx of people during and after the California Gold Rush also directly contributed to the territory attaining statehood and being admitted to the Union. And as alternative data becomes more common—and more commonly used—the challenges of using them today will become much easier to deal with over time until they ultimately become accepted as, and treated like, any other source of market data.

And eventually, this will also lead to commoditized pricing, rather than the ad-hoc arrangements currently favored as firms struggler to place a value on a dataset.

"One approach is to say 'We'll tell you what this looks like in terms of value—and that's what we're willing to pay. But there are many hurdles that data must jump-over in terms of being valuable, unique, repetitive and reliable, and the ability to include it in the investment process before we can get to a discussion about price," Buzzelli says. ■

LONDON CALLING: TP Icap's Sinclair Eyes Client-Driven Data

Six years after the collapsed merger between TMX and LSE thwarted his plans to relocate from Canada to London, Eric Sinclair is bringing his start-up spirit and focus on client experience to TP Icap, where he told Jamie Hyman and Joanne Faulkner about his role in transforming a company in the aftermath of major change. Photos by Jonathan Goldberg

In 2003, on Eric Sinclair's inaugural day as executive vice president of global sales for the then-Toronto Stock Exchange's TSX Datalinx division, the first thing he did was walk outside of the office to a pay phone—because it was, after all, 2003—call TSX's 1-800 number and attempt to buy a product.

Through that exercise, Sinclair "learned very quickly that the firm needed a dramatic overhaul to become more client-oriented." He says the realization anchored his approach as he led the growth of the Canadian exchange's data organization after TSX became a for-profit company. Sinclair was with TSX when the exchange merged with the Montreal Exchange to create TMX Group in 2008, and under his leadership, Datalinx revenue as a percent of total TMX revenue grew from 13 percent to more than double that today.

"The client experience is critically important if you want to adapt and grow," Sinclair says. This core philosophy underpins his approach to his new role as CEO of the Information Services data and analytics division of TP Icap, the world's largest interdealer broker. "All of TP Icap's product decisions will be client-driven."

Though his new office is 37 floors up with an elevated view of the building known as The Gherkin and the rest of London's financial district, blanketed below, Sinclair earned his

"Every country tends to have an exchange, a flag and a currency, usually in that order. [TMX] was a symbol of sovereignty to a world where fragmentation was leading to hyper-competition and exchanges needed to adapt. So culturally we needed to transform from being a government services-oriented organization to one where we had to serve shareholders and clients more effectively."

stripes on the ground floor in sales, and understanding the value of the client experience. He was a senior sales executive at Canadian data vendor IP Sharp when it was acquired by Reuters in the mid-1980s, and then stayed at Reuters for 16 years as vice president. Prior to TMX, where he was most recently president of its Market Insights division, Sinclair was executive vice president of global sales at Sanchez Wealth Management, which he joined as a result of its acquisition of Spectra Securities Software.

'A 150-Year-Old Start-Up'

Focusing on Sinclair's growth numbers at Datalinx perhaps understates the magnitude of TMX's transformation during his 14-year tenure. Currently the ninth-largest exchange in the world, the Toronto Stock Exchange was founded in 1861 and operated as a not-for-profit organization for nearly 150 years, becoming Canada's sole exchange for the trading of senior equities in the late 1990s. Sinclair joined in February 2003, just a few months after its November 2002 IPO, when the "sleepy not-for-profit" demutualized and became a for-profit company.

"For the first time in 150 years, they were dealing with shareholders and needed to produce earnings," Sinclair says. "TMX was a 150-year-old start-up.… That was a dramatic change in culture."

When he joined the team, Sinclair says there were two camps of people at TSX: those who had been with the exchange for a long time and "who frankly worked very similar to working for a government because the organization did not need to produce profits"—in fact, if it produced profits, the exchange would freeze trading fees until it used up the surplus, he adds—and newer executives who came on board with a for-profit mindset, trying to produce shareholder value, improve service to clients, and compete.

The stock exchange's transformation was far more than a strategy shift: Sinclair was overhauling a component of an entire nation's identity. TMX outdates the Canadian Confederation itself—established in 1867—by six years.

"Every country tends to have an exchange, a flag and a currency, and it's usually in that order," Sinclair says. "[TMX] was very much a symbol of sovereignty to a world where there was increased competition, and fragmentation was leading to hyper-competition and exchanges needed to adapt. So being a for-profit entity was an important structural step, and culturally we needed to transform from being a more government services-oriented organization to one where we had to serve shareholders and our clients more effectively."

That transformation took place from the ground up because "at the exchange there was no sales team and no thought of having people on commission," Sinclair says. "The idea of customer service was something that needed to dramatically improve…. People aren't calling to renew their passports, they're calling because they want to buy the exchange's products and services."

To position TSX for a competitive world, the first step was to build a global sales team to deal with the client base and respond to its unmet needs. From there, TSX diversified and provided content about other markets and other asset classes, including taking on the role of Securities Information Processor (SIP) for Canada, similar to those that collect data for the Consolidated Tape Association and Unlisted Trading Privileges (UTP) plan in the US.

"We were actually on a mandate from regulators to create the consolidated tape service that responds to the needs of Canada, which is based on depth of book rather than top of book in the US.… It is a far richer challenge to meet the needs in [the Canadian] market than it is in the US.," Sinclair says, adding that TSX captured content from its competitors, as well as from other markets, and built infrastructure services to support high-frequency trading (HFT) in the Canadian market. "Responding to that need for speed was a big technology challenge, and a great opportunity for us."

Yet TMX still did not have the same visibility as big exchanges based in New York or London—and to an extent, culturally, the Canadian exchange was fine with that. "I think culturally, we're an understated society," Sinclair says.

Meanwhile, change continued apace: TSX struck a deal with Standard & Poor's (now Dow Jones Indexes) to create the S&P TSX 60 index, marking S&P's first global partnership with an exchange, and also became the

first exchange in the world to launch exchange-traded funds (ETFs). "It was a great ecosystem because we had ETF trading creating velocity trading for the underlying stocks," which in turn allowed the exchange to build data products based on that to further enrich the ecosystem, with fees earned from selling the data driving trading in the marketplace.

"We tripled the size of the business, improved the margins, and got to 98 percent market share, and what were we going to do next?" Sinclair says. What came next certainly got the market's attention.

Eric Sinclair and Chris Dearie

London Relocation, Deferred

In February 2011, the London Stock Exchange (LSE) announced plans to merge with TMX, an historic merger that would have created a dual stock market listing of a combined 6,700 listings, making it the world's largest exchange by numbers of companies trading.

It didn't happen.

It was close. LSE needed—and secured—approval from 50 percent of its shareholders. But TMX required a "super majority" of 67 percent. Ahead of the TMX shareholder annual meeting in July 2011, Sinclair says they only had 55 percent support, so TMX opted out of putting the merger to a shareholder vote.

"The deal did not happen, and then the alternative bid superseded it," he says, referring to a rival bid from the Maple Group, a consortium of major Canadian banks and pension plans.

He acknowledges that there tends to be a lot of political opinion on exchange mergers, citing the Singapore Exchange's 2011 attempt to acquire the Australian Securities Exchange, which was blocked by an act of the Australian Parliament.

"That's how politically sensitive mergers can be," Sinclair says. "There have been a lot of challenges for global exchanges to merge… a lot of them have struggled." He says TMX and LSE anticipated regulatory review with "the added dimension of political interest that the exchange is a national asset," and attempted to create a merger with a "plurality point of view, where Canada would have been well-represented" by appointing TMX executives to serve as the new organization's president and CFO, and Sinclair as head of the combined information services decision.

Regardless, Maple Group's cash-and-shares bid of C$3.7 billion won the day, creating a "vertically integrated national exchange as an alternative to a transnational exchange and tie-up with the LSE." Although Sinclair says he would have preferred the TMX/LSE deal, the Maple deal was still "a positive step forward, a very good transaction."

And so, Sinclair left TMX in 2017, retiring from the exchange as the longest-standing executive. "It was a lot of fun, turning [TMX] from a not-for-profit to a for-profit company. We really transformed the organization, but the job was done," he says.

But retirement didn't last long. Sinclair says the opportunity to join TP Icap unfolded very quickly. "Here I am—six years later than I planned, but here we are in London and loving it."

'Enormous Opportunities'

Like his start at TMX, Sinclair joins TP Icap soon after an overhaul—the November 2015 acquisition of inter-dealer broker Icap's global hybrid voice broking and information business by rival Tullett Prebon. The remainder of the former Icap brokerage is now known as NEX Group. Following the acquisition, Tullett Prebon changed its name to TP Icap and is now the world's largest interdealer broker.

Sinclair replaces Frank Desmond, who left TP Icap after 12 years, and reports to group CEO John Phizackerley—a "great boss" who has "built a really good senior executive team," which includes CEO of global broking Nicholas Breteau, CEO of energy and commodities Andrew Polydor, COO Ian Plunkett, and Chris Dearie, COO of data and analytics. Sinclair says that "phenomenal team" is what first attracted him to the role.

"Similarly to TMX, the data business here is 6 percent of group revenue. I think there's a huge opportunity to change that," he says.

One key area of focus is data on the over-the-counter (OTC) assets brokered by TP Icap, which is "extremely valuable" because of its scarcity.

Hailing from an exchange, where market data is highly regulated and

commoditized, Sinclair sees great opportunity at TP Icap, which has a massive breadth and depth of OTC data. In fact, one plan for TP Icap is directly inspired by his TMX days, after the LSE merger collapsed, when TMX embarked on a joint venture with index provider FTSE, creating the FTSE TMX Global Debt Capital Markets fixed income index business in 2013.

"The irony of it is that neither FTSE nor TMX were actually generating the content. We relied on the dealers for the content, which I think is a fantastic opportunity for TP Icap. Because we're the world's largest IDB, we're the best source of OTC content. We're going to be working very closely with partners who are in that space. There is a natural role for us there," Sinclair says.

He and his team have also identified opportunities arising from the revised Markets in Financial Information Directive (Mifid II), which went live January 3, 2018, and has resulted in TP Icap making pre-trade and post-trade data available for

the first time. But this is a mere subset of the data that TP Icap plans to make available, Sinclair says, adding that the broker is excited about "other datasets that we have that we're going to want to monetize and bring to market."

TP Icap data COO Dearie calls the increase in pre-trade and post-trade data as a product "a significant change" from what the broker currently offers.

"In the past, we've been very focused on what is pricing data, and how pricing data works. But if you start thinking about it from a venue perspective, you have volume metrics, you have liquidity indicators, you have different derived data that we can build off the back of the stuff that we're adding to the platform," he says, predicting that it will result in a richer and deeper dataset that the broker will be able to implement globally across a whole range of assets. This will continue to enhance TP Icap's offerings within the market data and OTC data spaces, he adds.

In other words, Mifid II generates vast quantities of data and enormous amounts of oversight and governance—a change that Dearie says the whole industry, including the regulators, are getting used to insofar as its impact from a data perspective.

"I think it's worth pointing out that under the acquisition, the two major brands will remain separate, so the broking brands of Icap and TP will continue to compete as they did prior to the acquisition of the Icap assets," Dearie explains. "As a consequence of that, we will have datasets that reflect different liquidity pools that we're offering."

Opening the Lines of Communication

Dearie says this is only part of the transitional story at TP Icap, which as a result of Mifid II, now operates 11 different venues, split between TP Icap and PVM, the oil brokerage business it acquired in 2014 that brokers OTC trades in swaps, forwards, and physical crude oil and refined products.

"There will be elements of the data products that continue to reflect the different liquidity pools that we're supporting from a group perspective in terms of transaction capability, and then on top of that, the next phase is the ability to bring some of those datasets together to look at aggregated liquidity and aggregated metrics across those venues," Dearie says.

Sinclair says this translates into an integration of data products, and of course, in this era of transformation for TP Icap, Sinclair has client service in mind. He no longer can use a pay phone to tap into the client experience, but the broker has opened the lines of communication, and "all of our product decisions will be client-driven," he says.

"We'd like to have a common platform so that our clients can gain access to both the Icap and Tullet Prebon data in the same vehicle, plus we also want to upgrade our capability to deliver cloud-based services that make it very easy for self-service clients to come and acquire products and services faster, in a far more client-centered way," Sinclair says.

True to his sales roots, he says it is not enough to add more content, but that the user experience must also improve at the same pace. ■

Human Capital

BNY Mellon Taps Barr for CDO

Former HSBC and Bridgewater Associates data executive Gary Barr joined BNY Mellon in January as CDO. He is responsible for data strategy, "strengthening [the firm's] adherence to data governance standards, practices and policies," and "ensuring BNY Mellon's data is consistent, accurate and accessible for regulatory and business purposes," a spokesperson says.

Barr was most recently CDO at HSBC Global Banking and Markets, prior to which he was COO at New York-based portfolio analytics provider Novus Partners, and spent four years as CDO at Bridgewater Associates. Before joining Bridgewater in 2009, Barr spent seven years at Thomson Reuters as global head of its Enterprise Data business, was co-founder and managing director of London-based consultancy Spirit Solutions, spent five years as operations director at Credit Suisse, and was a data manager at Goldman Sachs and an associate at SG Warburg.

Brian Sentance

Rob Bernstein

He is also the co-founder, CEO and a board member of the charity Anchors for Hope.

At BNY Mellon, Barr reports to Doug Shulman, senior EVP and global head of client service delivery.

RegTek.Solutions Hires Bernstein as CFO

Trade and transaction reporting software provider RegTek.Solutions has named Rob Bernstein CFO.

Bernstein joins RegTek.Solutions from fintech firm TIM Group, where he spent seven years as CFO. During his career, Bernstein has headed both organic and acquisition growth strategies, and has executed two trade sales of fast-growth tech-enabled businesses: a telecommunications firm and, more recently, TIM Group.

"Since our launch we've seen an exceptional level of growth and now is the right time for us to have a CFO experienced in high-growth companies. Rob will be a key asset in us meeting our commitments to clients and enabling them to meet their regulatory requirements," says Brian Lynch, RegTek.Solutions CEO and co-founder, in a statement.

Bernstein adds that because financial firms will continue to face bigger and more complex regulatory challenges for the foreseeable future, now is an exciting time to join the RegTek.Solutions team, especially considering the firm's backing from Deutsche Börse and Illuminate Financial.

CEO Sentance Departs Xenomorph

Brian Sentance has left his role as CEO of analytics and data management services provider Xenomorph following the closing of a successful funding round.

Amanda Jones

Sentance left his role in late December. He started Xenomorph along with Chris Budgen and Mark Woodgate in 1995. Sentance tells *Inside Data Management* that the opportunity to exit the company arose during the vendor's latest fundraising process. He says he is not actively seeking other opportunities but will take up non-executive director positions.

Prior to co-founding Xenomorph, Sentance spent two years at JP Morgan as head of the equity derivatives pricing models team, responsible for designing equity derivatives pricing models for use in trading applications and risk management systems. Before that, he was a treasury analyst at BT Group.

Data Head Jones Departs Barclays Capital

Amanda Jones, global head of market data at Barclays Capital, has left the bank after almost 12 years. At Barclays, Jones was a managing director also responsible for supplier risk management, business information systems and broker and telecoms expense management. She joined Barclays in May 2006 to lead a messaging innovation project. Before that, she spent 10 years at UBS, including

as a director of business application management and senior business analyst for ecommerce.

Ex-CME's McElligott Emerges at Tradeweb

Brian McElligott, former managing director and global head of information products at CME Group, has joined fixed income, derivatives and exchange-traded fund trading platform Tradeweb in New York as managing director and head of data strategy.

At Tradeweb, McElligott is responsible for all aspects of its data business, from monetizing market data to using data and analytics to drive trading volumes. He was most recently director of business development at Crux Informatics, prior to which he was managing director of his own data consulting firm, BJM Data Management.

Before that, McElligott spent 14 years in CME's data group, including a decade running the division, prior to which he was a data management consultant at technology consultancy Bond Technologies, and spent six years as manager of foundations and endowments accounting at Northern Trust.

In his new role, McElligott reports to Scott Zucker, chief administrative officer at Tradeweb. "We're deeply focused on the growing opportunity that data and applications that consume data will continue to have in trading technology, and we're excited to have Brian join us to continue to drive innovation at Tradeweb," Zucker says.

Brian McElligott

Twitter, Neudata's Morse Joins AI Banking 'Assistant' Finn.ai

Stephen Morse, former head of global finance data partnerships at Twitter, has joined artificial intelligence-powered banking "virtual assistant" Finn.ai as head of global strategic accounts in New York, responsible for expanding the vendor's tier-one strategic accounts.

Morse was previously an advisor at Neudata, which advises investment managers on alternative data sources. In his previous role at Twitter, Morse led enterprise data sales and partnerships in finance, which he joined via its acquisition of Twitter analytics provider Gnip, where he was managing director of the company's New York office, prior to which he was a managing partner at 20 Twenty, director of marketing and sales at alternative investment firm Sciens Capital Management, senior vice president of sales at ValuBond, vice president of sales for both North America and (separately) Europe at Dow Jones' Stockpoint business, and head of sales at Barra.

iMeta Hires Former Capita Operations Director as COO

Onboarding and client lifecycle management technology provider iMeta Technologies has appointed Steve Piper as COO.

Piper will manage the day-to-day running of the Southampton-based business and will be responsible for program management, corporate governance, human resources and logistics.

He has a background in software development and 25 years' experience at technology and financial services firms. Prior to his new role, Piper served as operations director in busi-

FCA Names International Director, Esma Rejigs Board

Two European regulatory bodies have welcomed new faces to leadership positions. The UK's Financial Conduct Authority (FCA) has named Nausicaa Delfas executive director of international, in charge of setting and delivering the FCA's strategy for international engagement, while the European Securities and Markets Authority (Esma) has announced two new members of its management board.

Delfas is tasked with building relationships with foreign regulators, governments and other stakeholders while helping the FCA shape its global regulatory agenda and international policy. She will also lead the regulator's response throughout the UK's withdrawal from the EU.

Delfas, who has been acting COO at the FCA and a member of its executive committee since November 2016, will report to CEO Andrew Bailey.

Meanwhile, at a meeting of Esma's board of supervisors on January 31, the regulator named Robert Ophèle of the France's Autorité des Marchés Financiers and Erik Thedéen of Sweden's Finansinspektionen as the replacements for two outgoing board members—Birgitte Søgaard Holm of Denmark's Finanstilsynet and Giuseppe Vegas of Italy's Commissione Nazionale per le Società e la Borsa.

Ophèle and Thedéen will serve the outgoing members' mandates through to September 2019.

Esma's management board is chaired by Steven Maijoor, and ensures the regulator carries out its mission and performs the tasks assigned to it under its founding regulation.

Nausicaa Delfas

Wenting Shen

ness process outsourcing firm Capita's financial software business. He has also previously worked for iMeta as a principal consultant in delivering projects to top-tier banks and financial firms.

MDX Confirms Wurster as US Sales Head

UK-based data contributions, caching and distribution software provider MDX Technology has appointed Brian Wurster head of sales for the US and Canada, to respond to "a significant uptick in inbound enquiries," officials say.

Wurster first started working with MDX in September 2016 in a consulting capacity and has now joined the vendor full time to lead sales in North America. From 2009 to 2015, he was a senior account executive for fixed income brokerage at BGC Partners and eSpeed, and during his 20 years of experience in sales trading, broking and software sales, has also worked at Tullett Prebon and Bank of New York.

Based in New York, Wurster reports to MDX CEO Paul Watmough. "To keep up the momentum [of new business], it was essential we had a dedicated and experienced person on the ground who could handle all these enquiries locally. Given his sales trading/broking background, Brian knows his way around the market and hit the ground running," Watmough says.

Roger Worthington to Head AxiomSL's New Product Operations Team

Regulatory reporting, risk and data management solution provider AxiomSL has hired Roger Worthington as head of production operations. As part of his role, Worthington will be responsible for leading the firm's newly created production operations team, which oversees the live-service support for AxiomSL's Software-as-a-Service (SaaS) capability.

He will be based in Singapore and will report to Peter Tierney, CEO for Asia-Pacific.

Tierney says that under Worthington, the size of the product operations team is expected to grow to between six and 10 people this year.

Worthington's responsibilities also include establishing service-level agreements (SLAs) with AxiomSL's clients that use the SaaS product, creating service delivery and support processes to ensure those SLAs can be measured and met, and working with Amazon Web Services, its partner, to establish and manage service levels for hosted solutions.

He has more than 20 years' experience in building and managing shared infrastructure, including networks and data centers at financial institutions. Prior to joining AxiomSL, Worthington served as head of Asia-Pacific operations at Pico, a market data service and provider of customized managed infrastructure solutions.

Brian Wurster

T. Rowe Price Taps Former BlackRock Strategist for APAC Strategy Role

Asset manager T. Rowe Price has appointed Wenting Shen as its solutions strategists for Asia-Pacific (APAC). Shen will join the APAC multi-asset division team in Hong Kong and report to Thomas Poullaouec, head of multi-asset solutions for APAC.

Shen will work with the team to create customized multi-asset solutions for institutional clients in the APAC region. Poullaouec says these solutions would typically invest in a wide range of assets, such as equity, fixed income, and alternatives, as well as markets and sectors.

Poullaouec adds that in an era of changing demographics and falling yields, investors in APAC are demanding more comprehensive multi-asset investment solutions that offer access to investments in a broad set of countries, sectors and capital structures.

Shen joins T. Rowe from BlackRock Asset Management, where she was vice president for multi-asset solutions. She led the firm's Asia model portfolio business and was responsible for developing and managing a range of investment solutions from product design to launch to post-launch support.

Prior to her seven-plus years at BlackRock, she held various investment banking roles at JPMorgan Securities.

Shen's addition to the team is part of a strategic expansion of the multi-asset division regionally and globally. This includes the recent appointment of Nick Samouilhan as a solutions strategist for Europe, the Middle East and Africa, based in London.

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