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trading technologies for financial-market

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BREXIT STOKES INDUSTRY DATA FEARS

Alt Data Providers Struggle to Stand Out

THE CHANGE MANAGER

Fabrice Silberzan keeps the ship steady at BNP Paribas Asset Management

waterstechnology.com March 2019

Editor-in-Chief Victor Anderson
victor.anderson@infopro-digital.com
tel: +44 (0) 20 7316 9090
Editor James Rundle
james.rundle@infopro-digital.com
Editor at Large Anthony Malakian
anthony.malakian@infopro-digital.com
Editor, Asia Wei-Shen Wong
wei-shen.wong@infopro-digital.com
US Reporter Emilia David
emilia.david@infopro-digital.com
European Reporter Josephine Gallagher
josephine.gallagher@infopro-digital.com
European Reporter Hamad Ali
hamad.ali@infopro-digital.com
Head of Editorial Operations Elina Patler
elina.patler@infopro-digital.com

Business Development Executive Arnaud Morell-Coll
Tel: +1 646 736 1887
arnaud.morell-coll@infopro-digital.com

Marketing Manager Louise Sheppey
tel: +44 (0)20 7316 9476 louise.sheppey@infopro-digital.com
Design Lisa Ling

Corporate and Single Subscriptions
Europe: Tsetso Bikov tel: +44 (0)20 7316 9326
US: Barbara Faiman tel +1 646 736 1852
info@waterstechnology.com

Publisher Katie Palisoul
katie.palisoul@infopro-digital.com
Managing Editor Max Bowie
max.bowie@infopro-digital.com
Group Publishing Director Lee Hartt
lee.hartt@infopro-digital.com
Managing Director David Pagliaro
david.pagliaro@infopro-digital.com

Infopro Digital Head Office
Haymarket House
28–29 Haymarket
London SW1Y 4RX
tel: +44 (0)20 7316 9000
fax: +44 (0)20 7930 2238

Infopro Digital US
55 Broad Street, 22nd Floor
New York, NY 10004
tel: +1 646 736 1888

Infopro Digital Asia
Unit 1704-05
Berkshire House, Taikoo Place
25 Westlands Road
Quarry Bay
Hong Kong
tel: +852 3411 4888

Infopro Digital Customer Services
tel: +44(0) 1858 438 800

To receive *Waters* magazine every month you must subscribe to a WatersTechnology Subscription or a Waters Premium Subscription. For more information and subscription details, visit waterstechnology.com/subscribe

Waters (ISSN 1068-5863) is published monthly (12 times a year) by Infopro Digital Risk Limited. Printed in the UK by Stephens & George Print Group, Dowlais, Merthyr Tydfil, Wales.

The King Is Dead, Long Live the King

This is the last issue of *Waters* that you will ever read. But we're not going anywhere—far from it. As of April, we're welcoming our sister title, *Inside Data Management*, into the fold, and becoming something greater in the process, a magazine that truly reflects the marriage of technology and data in the capital markets. Next month, the first issue of *WatersTechnology* will hit doormats across the world. This magazine will be a mean beast, combining the expertise of our legacy brands—*Inside Market Data*, *Inside Reference Data*, *Buy-Side Technology* and *Sell-Side Technology*—into a single entity, for truly the first time. It is enormously exciting.

Along with the launch of the new magazine, a lot has gone on behind the scenes to make it work. Our offices in London, New York and Hong Kong, and the talented journalists who staff them, have been realigned into a true, global newsroom, which will be reflected in the continuous coverage found in our online presence, WatersTechnology.com. You will have already seen changes taking place there, most noticeably the realignment of the design to reflect the areas we cover—technology, data management, trading tools, regulation, operations, management and strategy and innovation. Our events calendar is being simplified to deliver the content that you need, and we're continuing to invest in our editorial output through the magazine, through the website, through podcasts and everywhere else.

But why are we doing this? Simply put, when *Waters* was launched 25 years ago, technology and data were in very different places for financial-market firms. Since then, technology has become the business, and data an integral part of that—just see the rise of the chief data officer for more. Banks now refer to themselves as technology firms that run money, and the growing importance of information to new technologies, not least of all artificial intelligence and other such areas that are reshaping how firms trade and manage their businesses, should be reflected in the flagship publication that covers such an intersection.

This isn't just a cosmetic change—the debut of *WatersTechnology* cuts to the very core of how we cover financial technology. You can expect in-depth investigative work, a great example of which is our exhaustive examination of the Consolidated Audit Trail on page 12. You can expect stories that don't just cover one or the other, but bridge the gap between tech, data, politics and market structure developments, like our look at Brexit data concerns on page 32. You can expect more content, more expert, independent journalism that matters to you.

For over 25 years, *Waters* has been at the forefront of covering change in financial-market technology. Led by Max Bowie, our managing editor, we're inviting you to come with us on the journey into the next 25 years, where we'll cover the market in a depth unmatched by any publication on Wall Street, in the City, or anywhere else. It should be one hell of a ride. **W**

James Rundle
Editor

waterstechnology

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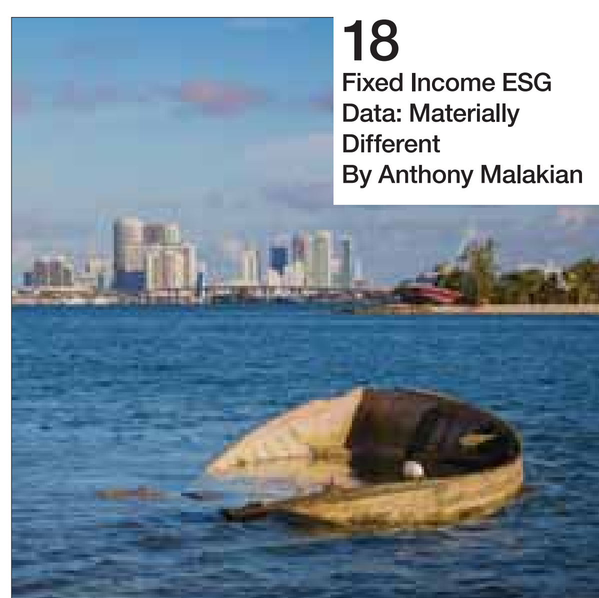

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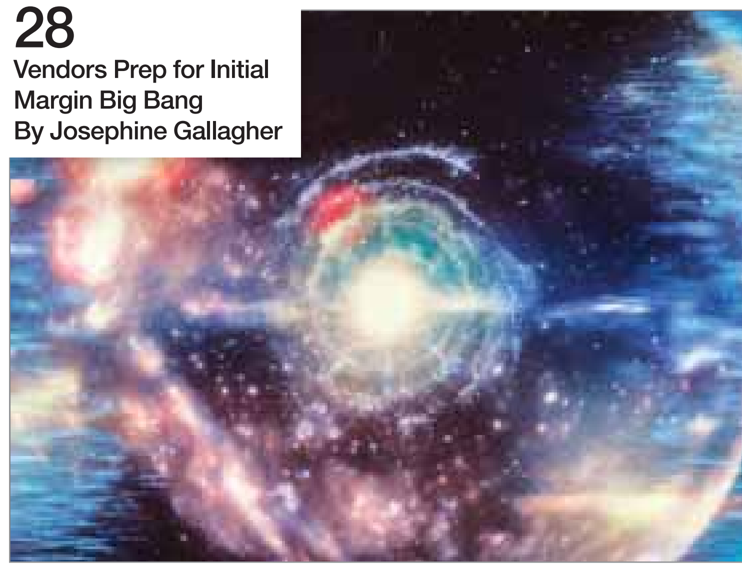


CLS Sees Growing Buy-Side Demand for FX Settlement Risk Solutions

Buy-side participants are now more aware of the risks associated with FX settlement, and are getting more involved in managing them. By Wei-Shen Wong

Foreign exchange (FX) settlement, processing and data solutions provider CLS anticipates that buy-side interest in FX settlement risk mitigation tools will continue to grow.

Margaret Law, head of client management for Asia-Pacific at CLS points to evidence that between 2017 and 2018, the average daily gross value settled by third parties—including banks, funds, non-bank financials and corporates—grew 18 percent.

Settlement of FX transactions requires counterparties to exchange the principal, or the value of the trade, in two currencies. "Settlement risk is the risk that one party to an FX transaction delivers the currency it sold but does not receive the currency it bought from its counterparty, resulting in a loss of principal," says Law.

CLS aims to reduce settlement risk by simultaneously settling the payments on both sides of an FX trade through CLSSettlement—its payment-versus-payment (PvP) settlement service.

Asset managers, asset owners, banks, non-bank financial institutions and multinational corporations can participate in and submit FX trades to CLSSettlement through a CLS third-party service provider that is also responsible for handling all of the payment instructions and funding to CLS in relation to the trades. Law adds that interest in settlement risk mitigation is driven by the asset management community in Japan, as well as from the larger Asia-Pacific region.

According to the Bank for International Settlements Triennial Central Bank Survey in 2016, Japan is one of the world's largest centers for currency trading and a crucial hub for the Asia FX community. The country accounts for 6.1 percent of global over-the-counter FX turnover.

CLS recently signed Nomura Asset Management (NAM) as the first asset manager in Japan to provide access to CLSSettlement for Japan-domiciled funds.

NAM is working with the Nomura Trust & Banking Co., Japan Trustee Services Bank, and the Master Trust Bank of Japan to offer CLSSettlement a total of 21 investment trust funds. NAM, along with the three trust banks, is supported by global custodian banks including Brown Brothers Harriman, Citibank, and Sumitomo Mitsui Trust Bank.

According to CLS, while large banks and securities companies in Japan have been using CLSSettlement to settle FX trades, it is only recently that asset managers and pension funds are starting to do so. This is because Japan-domiciled fund FX transactions involve many stakeholders, such as trust banks, asset managers, global custodians and counterparty brokers.

However, following guidance by the Basel Committee on Banking Supervision to use PvP settlement and netting where appropriate, the Financial Services Agency of Japan and the Bank of Japan have promoted the use of PvP settlement to Japanese wholesale FX market participants.

Buy-side firms are also increasingly aware of the risks associated with FX settlement, and as a result they are getting more involved in how those risks are managed, Law adds.

"In addition to risk mitigation, firms benefit from streamlined trading operations, and enhanced liquidity from netting that lowers transaction costs. They are also able to boost trading and counterparty limit management efficiencies that support business growth opportunities. For these firms, reducing risk through efficient post-trade processing has a direct impact on the performance of their investment portfolios—every marginal saving delivers to the bottom line," she says.

On top of that, the creation of the FX Global Code—a set of global principles developed to provide a common set of guidelines promoting integrity and effective functioning in the wholesale FX market—encourages more market participants to focus on best practice in the post-trade area, including the need to mitigate FX settlement risk.

The code was developed by a partnership between central banks and market participants from 16 jurisdictions. While it does not impose legal or regulatory obligations on market participants, the code is intended to serve as a supplement to local laws, rules and regulations by identifying good practice and processes.

Law says many CLS products aid compliance with the principles set out in the FX Global Code. "CLS has developed new solutions with the buy side's needs in mind, such as CLSTradeMonitor, which allows non-settlement members, or those without direct access to CLSSettlement, to see the matching and settlement status of their own trades. Previously, they had to rely on an intermediary for this information," she says. W

CAT's Future Cloudy as NMS Committee Declines to Name New Processor

Technical specifications will remain the same even as the committee works on finding a new database operator. By Emilia David

As the saga of the Consolidated Audit Trail (CAT) continues, the committee handling the project left the industry in limbo on February 20, as it refused, or said it was unable, to answer key questions during a highly anticipated webcast.

Despite the lack of a new technical lead, following news that Thesys CAT will no longer be the plan processor, deadlines and technical guidelines for the industry to start reporting trades to the database remain the same, the Operating Committee said.

Questions around who will continue Thesys' work on the CAT went unanswered, with the CAT National Market System (NMS) committee saying that it is not in a position to announce the new processor at this time. The self-regulatory organizations (SROs) that make up the committee must all agree on the new processor before an announcement can be made, though the committee notes it may be able to provide another update in April.

In the meantime, Thesys remains as the processor until a replacement is named.

Industry sources tell *WatersTechnology* the new processor is most likely the Financial Industry Regulatory Authority (Finra), which is said to already be in discussions to take over. Thesys was dropped by the Securities and Exchange Commission (SEC) at the end of January in a move that shocked the industry. Finra, which already runs the Order Audit Trail System (Oats), a system for collecting trade data from exchanges, was considered to be the frontrunner to run the CAT before Thesys won the bid.

The Committee declined to answer questions around the selection of a new processor during the call but assured industry participants that it is "working in good faith with the information [they] have."

The Committee also did not mention if the new processor will be required to build new technology for the CAT, though it noted whoever wins the contract must adhere to the technical specifications already laid out. This means messaging protocols established while Thesys was the processor will remain, along with other technical guidelines.

In addition, it shot down proposals to move to an Oats-like format for reporting to the CAT. Smaller broker-dealers are still required to submit data for validation to CAT NMS before undergoing testing, which is set to begin in December 2019, with larger broker-dealers due to begin reporting this November.

The CAT, billed as the largest database of trade information in the world, has been through several delays since its inception. Thesys CAT, then an arm of proprietary trading firm Tradeworx, was confirmed as the processor in January 2017—even though a request-for-proposal was released in 2013—but was working on a tight schedule. Concerns over security and privacy, plus a prolonged search for a chief information security officer to oversee approvals of its security protocols, hounded the project. In the run-up to the November 2017 deadline, CAT NMS sought to delay the project, but these new deadlines were not approved by the SEC. Nevertheless, Thesys and CAT NMS followed their new deadlines despite technically being out of compliance.

After the November 2017 deadline, the CAT finally went live for SROs a year later, though only in a limited capacity. Full functionality was supposed to begin on January 31. Staggered industry reporting is still set to begin November this year but is "subject to SEC objection and staff feedback." In January 2019, the SEC hired Manisha Kimmel as a special advisor, reporting directly to chair Jay Clayton, with a brief explicitly focused on pushing the CAT forward. Several days later, it was announced that Thesys would not be the plan processor for the next phases and that a search was underway for a replacement. W

Refinitiv Consolidates Data Insights on China's Belt and Road Initiative

The data provider recently launched a platform aggregating BRI data. By Wei-Shen Wong

Market data provider Refinitiv has laid out a roadmap for additional functionality and data linkage capabilities on the recently launched Belt and Road Initiative Connect (BRI Connect) platform.

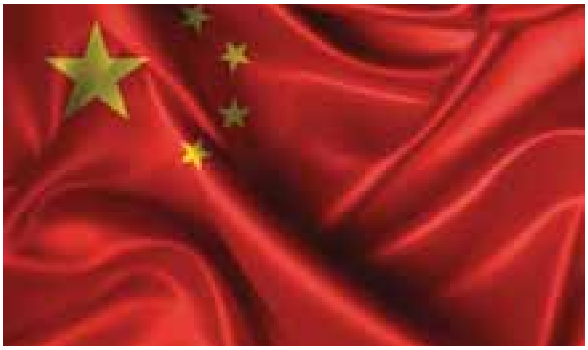
Earlier this year, Refinitiv launched BRI Connect, available via its financial-markets desktop, Eikon, giving investors access to a suite of tools to help identify opportunities around China's BRI. BRI Connect provides investors with BRI information including macroeconomic, project, market, financing, geopolitical, and operational risk data, collating data on over 2,000 infrastructure projects involved in the initiative.

The BRI project was launched by China in 2013 with the aim of strengthening infrastructure and connectivity between itself and about 70 other countries. It is considered the largest investment program in history, accounting for more than $500 billion in infrastructure spending. It covers infrastructure projects connecting countries along six different economic corridors and one maritime route across Asia, Europe, and Africa.

As the scope and scale of the initiative are still taking shape, investors and asset managers are looking to get a slice of the BRI pie.

Phil Low, customer success director and BRI regional lead for North Asia, says investors are tackling BRI at different levels. Some are interested in looking at project risk, construction risk, and country risk, he says.

"What we're trying to do is be that single source of BRI project data. We believe that because of our other assets on our platform, there isn't anyone



else who can provide details beyond just the projects," he adds.

Details of the individual BRI projects are the first level of data, he says. "It's really the in-depth analysis that we are providing, on top of our news. From my experience, talking to participants in Hong Kong and Singapore, everyone wants to come at it from a different angle. We are trying to make the entry points to the data as flexible as possible. It's an entry point into Eikon and behind the scenes, there's a whole lot of other data that we're consolidating and structuring so that people can access a whole platter of data," he says.

He adds that BRI Connect is available to most Eikon variants at no added cost.

Future Additions

Refinitiv expects that there is potential for the BRI Connect platform to commingle data. One of the datasets it is looking to integrate on BRI Connect is the deals database, which it is working on.

"So from an investment banking perspective—take, for example, HSBC—they will have all the data of the deals they have been involved in, in the Asian region. They'll be able to potentially put that layer of information in, match it with our data and/or see where the gaps are and what other people have done, and maybe find that there are other projects that are an extension of the infrastructure project. For example, if a port has been put in, there is usually a road or rail, hotels, shopping malls, that come after that. That's what the banks are after too, and that's a secondary and tertiary business they're looking to provide," Low says.

Refinitiv is just starting this process, and it will be unique to the BRI Connect platform. "This is where it will get interesting, when layers of data are added. There are modules where customers can put their proprietary data on the platform," he says.

The actual project data is already available, but Refinitiv is taking it a step further, providing data, connection, and details that users may not necessarily have by just looking at the project.

"It's a process of getting the connections to the back end connected. All our data is tagged and it's just a matter of determining that what is tagged is correct and making it available. As a roadmap, that's one part of the project that is happening. So by the end of the first quarter, we should have all deals databases connected," he says.

Also included in the roadmap for BRI Connect is the addition of linkages to World-Check, Refinitiv's know-your-customer and third-party screening service. "Interviews, insights, industry analysis—these are some of the other areas we have on the roadmap," Low adds. W

Trading Technologies Debuts Infrastructure-as-a-Service Offering

The vendor is embarking on a new strategy with Graystone Asset Management as its first client on the platform. By James Rundle

In 2018, Chicago-based Trading Technologies (TT) began a journey away from just being a provider of trading tools to futures market participants, to covering screen-based execution products and data analytics. Now, with the launch of its infrastructure-as-a-service (IaaS) offering, the company has completed its transformation into a full-service vendor.

TT has announced Graystone Asset Management as the first formal client of its consolidated IaaS product. The firm, based in the Cayman Islands, is an excluded person under Cayman law, trades on a proprietary basis in currency derivatives markets and cryptocurrencies, and advises high net-worth individuals in these areas through its funds. It currently manages the Graystone Balanced Arbitrage Fund, which operates as a Cayman Islands hedge fund.

Graystone is also deploying the TT platform—and the vendor's advanced execution and algorithmic tools—as part of the deal. Prior to the implementation, it had relied on connecting to venues itself and on its proprietary technology—although it will still use its own code with TT's products.

"TT provides a very unique product in its time to market and the cost of time to market," says Jame' Groves, senior quantitative advisor at Graystone. "Coming from a proprietary trading background—our expertise is in high-frequency trading—the general thinking is that you just build it yourselves. It's not so much that building an order management system (OMS) is too difficult in terms of time and dollars, but you have to couple that with the cost of co-locating in the datacenters of the various venues you need to transact with. And on that side of the ledger, it's extremely expensive. And TT, especially with their Algo Design Lab features, and with Autospreader, it's really limitless. When you couple that with an infrastructure that's co-located, for us, it's a turnkey solution that allows us to go to market very rapidly, and for us, it doesn't make any sense to go in-house."

For most firms, a shift from its traditional heartland of providing execution tools for futures markets would be a radical re-engineering of its core functions—operating points-of-presence on a global basis, co-locating in exchange datacenters and providing ultra-low-latency connectivity is not, after all, a task for the fainthearted. However, as TT's chief information officer, Mike Mayhew, explains, much of the foundation had already been laid.

"I feel like we've been doing this for such a long time that we don't see it as that big of a migration step," he says. "We've been hosting customers on TTnet, for instance, on what customers feel is dedicated infrastructure—although there is an application management aspect to it on top of that. We operate a 24/7, follow-the-sun model. We have support and that includes systems engineering and network teams in London and in Singapore, who are highly capable when it comes to supporting our network globally. We have highly resilient networks to begin with and manage thousands of servers today for our internal use. I feel that if I look across the operations teams, it's just a natural progression."

Indeed, this was the central thrust behind CEO Rick Lane's decision to diversify the product offerings on hand at TT to begin with. The company already had this connectivity, the global footprint and everything else in place to support its existing customers, Lane told *WatersTechnology* in March 2018, shortly after he authored a blog post outlining the strategy.

"I do think we've—probably for longer than I'd like to admit—had a very unique asset in our global network and backbone, which was really all built to serve one purpose, and that was to be a screen company," he said. "For too long, I think, we've under-utilized that."

Pieces had begun to be arranged on the board before this, notably in the form of TT's October 2017 acquisition of Neurensic, and its move into the surveillance and analytics space. The introduction of TT Score would later provide the backbone of the analytics arm. Then, one year later in October 2018, it announced that it was consolidating a number of its existing workflows into a single OMS product.

One of the key aspects of the new IaaS product is that using it doesn't require a full-blown subscription to TT's other services, Mayhew adds. In addition, explains Brian Mehta, chief marketing officer, it gives the vendor the ability to expand its coverage beyond just its traditional asset classes—recent forays into crypto notwithstanding. Future development of this platform, for instance, could include connections into datacenters like those in Mahwah, New Jersey, which service NYSE. W

TNS to Roll Out R2G Low-Latency Tech Globally, Post-Acquisition

Financial extranet provider Transaction Network Services plans to deploy proprietary technology from R2G Services at locations on its network worldwide, after acquiring the Chicago-based low-latency co-location and connectivity provider in January.

The move was driven by TNS' goal of expanding its own low-latency infrastructure and managed hosting business in addition to its extranet. "We've seen quiet growth with it over the past couple of years, so we started to think how we could accelerate that and take it to the next level," says Tom Lazenga, vice president of TNS' financial services division. "R2G had something purpose-built for this market and customer base and when we looked under the hood at their technology and how they built their network, we were excited about what they had put together—and that's what led to those conversations."

Lazenga says he expects the businesses to be fully integrated within a few months, and already has some projects underway to roll out R2G's technology to clients in Europe and Asia.

"One of the things we're excited about is that R2G was only in the US. We have a global presence, we have relationships with financial firms around the world—and we're already starting to have conversations with firms about it," he says.

The projects already underway represent the beachhead of new build-outs of R2G's technology at datacenters around London, Frankfurt, Amsterdam, and Singapore.

Lazenga says the vendor plans to appeal to new client types as well as different job functions within existing clients of its extranet business, which it can leverage to sell the R2G services into business areas that require higher-performance data access, while also being able to sell the broader extranet services to firms that may have focused on low latency in a small number of specific markets and now want access to other markets worldwide to which TNS is already connected.

"Our extranet's traditional focus was not on latency, but rather on resiliency, [whereas] R2G had constructed a purpose-built, low-latency data transport between key locations. We intend to bring that same model international," Lazenga says. "What we like about R2G's setup is how well its network design will scale," he adds, noting that while the low-latency marketplace is already a crowded space, few players can offer TNS' global presence and full range of services.

Max Bowie

JP Morgan's FX Algo Tool Launches on Bloomberg Terminal

JP Morgan has launched its foreign exchange (FX) algorithm tool on the Bloomberg Terminal's application portal. Bloomberg's App Portal will provide access to JP Morgan's FX execution tool, Algo Central, to Terminal users without needing to open another program. Algo Central offers pre-trade, real-time, and post-trade analytics to help manage multiple FX algorithms at the same time, and allows users to quickly change execution strategies.

Algo Central is also available on JP Morgan's Market Execute platform. Mike King, global business head for Bloomberg App Portal, says adding Algo Central is part of its goal to help create more value for application providers and users by embedding the applications within a Terminal user's workflow.

"Bloomberg's collaboration with JP Morgan is a prime example of the value clients receive when dealers integrate their proprietary analytics with the App Portal: an integrated workflow with functionality that they control, combined with the powerful combination of data and analytics of the Terminal. The App Portal enables our customers to deliver their applications to the Bloomberg user community via the Bloomberg Terminal," King says. "It provides customers with a unified desktop experience instead of having to switch between multiple application screens."

He adds Algo Central is the first institutional FX algorithm execution tool offered by a global bank on the portal. Bloomberg Terminal users already have access to the portal. King says more applications are in the pipeline for the portal with most focused on niche areas.

Emilia David

Avelacom Adds Third PoP in Tokyo

Low-latency network provider Avelacom is catering to the demands of market-makers, proprietary trading firms and investment bank trading desks interested in both local and global markets with the addition of a third point-of-presence (PoP) in Tokyo.

The AT Tokyo Premium Colocation Space PoP joins Avelacom's two existing PoPs at Equinix's TY3 and at AT Tokyo's Chuo Data Center (CC1).

Each datacenter has its own specificity. For example, Equinix's TY3 datacenter mostly accesses foreign exchange electronic communications networks, while the AT Tokyo Premium Colocation Space accesses Japan's commodity and equity derivatives markets. Alina Karpichenko, global marketing manager at Avelacom, says institutional players trade at multiple venues in multiple assets and they therefore have varying approaches to latency.

"By launching three PoPs in Japan, we provide our clients with access to all asset classes in line with their latency strategy in a highly efficient manner," she says, adding that the new PoP provides firms trading in Japan's capital markets with ultra-low latency access plus increased stability.

Wei-Shen Wong

Deutsche Bank Takes to the Cloud

Deutsche Bank is offloading critical functions to the public cloud. The bank is integrating CloudMargin's cloud-based offering for collateral and margin management requirements, in keeping with the phased-in initial margin rules on non-cleared derivatives.

Deutsche Bank and its clients will access the same web-based platform using individual login portals. The platform will provide a transparent single version of record for all parties involved in the collateral management process, including obligations and required actions for cleared and uncleared over-the-counter transactions. It is designed to minimize operational risk and eliminate discrepancies. Joseph Macdonald, global head of collateral optimization trading at Deutsche Bank, says one of the objectives of using cloud-based technology is to enable automated upgrades and software updates, which in turn allow for improved user experience on collateral management.

"The alternative to the cloud is on-premises solutions and these typically, by the time they are integrated into our platform, are already regarded as obsolete and needing to be updated," he adds. "But with cloud, we are always on the latest version and every time something changes we get the benefit of that and so does every single one of our clients logging into the platform."

The cloud-based technology is expected to provide a more efficient and cost-effective alternative to on-premises management systems. Deutsche Bank will reduce costs by eliminating the need to host the service and maintain the technology. Macdonald says there is a drive in investment banking to automate processes and refocus attention on more specialized areas. As smaller asset managers and banks come into the scope of the initial margin rules in September 2019 and September 2020, CloudMargin's integration into Deutsche Bank will enable those firms with fewer resources and budgets to tap into the service through an online browser, removing the need for them to integrate the technology. The platform is being developed to support all users currently within scope or coming into scope of the initial margin requirements.

Until recently, investment banks had remained reluctant to offload core functions or services to the cloud due to security threats and having to rely on third-party infrastructures. Macdonald says cloud technology is the future and that investment banks are quickly realizing that the benefits now outweigh the risks.

Josephine Gallagher

Axon Launches Data Declaration Portal, API in the Works

Axon Financial Systems is launching an online portal that streamlines the collection of market data usage allocations.

The Axon Declaration Portal (ADP) is a simple browser-based entry form that eliminates the need for email-based declarations, with the aim of minimizing manual interventions and improving accuracy.

Axon COO Steve Cowler says the portal represents an upgrade from the old method of emailed spreadsheets that needed to be collated and reconciled by a central billing system.

"Cost benefit is to the exchanges or vendors in time saved collating the information from multiple clients. ADP does not reduce the cost of market data," Cowler says, adding that use of the ADP is free to the client entering the data, with exchanges and vendors paying a subscription fee for Axon to manage the portal.

He says the ADP is a standalone product that will help simplify a time-consuming process. "Time savings vary depending on the size of the client and how many exchange products they are declaring usage for. If you have the data to hand, you can enter the data in a matter of a few minutes," he says.

Belfast, Northern Ireland-based Axon is also releasing an API that provides access to its flagship product, PEAR, a database of market data policies and pricing that underpins the company's platform.

Jamie Hyman

Startup Fincross to Onboard Clients, Launch Crypto Custody in Second Quarter

Fincross International, a startup digital asset investment bank based in the United Arab Emirates, will start onboarding clients in the second quarter of this year, and plans to launch a custody service for digital assets in April, officials say.

Fincross, which received an investment banking license from the Financial Services Commission of Mauritius (FSC) last year that allows it to integrate cryptocurrency financial services with traditional financial services, is building a proprietary distributed banking ledger to facilitate trades and other potential products and services.

Deputy CEO Henry James says Fincross has already built the custody solution, and is currently testing it ahead of the expected April go-live date, subject to regulatory approvals. "We simply need to receive the approval for the digital asset custody license from Mauritius. With that license activated and the technology having completed testing, we can roll out the solution," he says, adding that he hopes to receive the approval from the FSC in March.

Wei-Shen Wong

Lucena–WSH Broaden Buy-Side Exposure to Quant Signals

Buy-side firms without in-house quantitative data science resources can now exploit datasets from events data provider Wall Street Horizon that might have previously been beyond the scope of their expertise, as a result of an agreement between the vendor and analytics provider Lucena Research, which has created easy-to-use trading signals based on Wall Street Horizon's data.

Lucena has created long and short strategies within its QuantDesk platform from Wall Street Horizon's dataset of revisions to company earnings event dates, which have demonstrated positive and negative impacts on a company's stock price depending on whether the company brings its earnings date forward or delays the date.

Lucena's platform uses an artificial intelligence-driven process to identify datasets that have an impact on stock price and other key performance indicators, and which of these datasets produce bet results when combined together.

"We have combined Wall Street Horizon data with fundamental factors and analyst recommendation factors. We tested each indicator individually, and when combined, and found that the combination was much more potent," says Lucena CEO Erez Katz, adding that incorporating the analyst recommendations raised the accuracy of Wall Street Horizon's predictions to 67 percent. "The real power of the data is in short signals: If someone delays an earnings call, we've combined that with other fundamental factors like free cash flow and Sharpe Ratio over the last 12 months, and we were able to generate a back-test that not only beat shorting the S&P 500 but also generated positive cash flow from shorting those stocks."

Erez Katz
Lucena

"Lucena has redistributed our data for years … and found that not only do we have a strong signal, but that they can augment it with other fundamental indicators to make it more unique," says Wall Street Horizon CEO Barry Star. "When you put the two together, you get a solid gold signal for generating alpha or for managing risk."

For Wall Street Horizon, the move allows the vendor to expand the reach of its data to a broader cross-section of buy-side clients beyond its core base of hedge funds and proprietary trading firms that license its raw data and have the resources to derive trading signals in-house.

"We have a handful of clients on the buy side [aside from hedge funds], but we think we can grow this. One of our 2019 strategies is to grow that by baking our data into other peoples' packages. And over the next couple of months, you'll see us announce a couple of other relationships to make our data more visible to the buy side," Star says. "Lucena works with a lot of firms on the buy side. We continue to be strong in the quantitative, trading, and algo communities. Lucena has a very strong installed base on the buy side. Their business is to give asset managers who may not have an in-house quantitative capability the tools to develop their business."

Katz says Lucena's involvement will help expose Wall Street Horizon's data to "pretty much every major hedge fund in North America," plus growing client bases in Europe and Asia.

Max Bowie

New Big XYT Data Shows Appetite for Equity Spreads

Big XYT has launched a website that provides a 250-day view of market trends, and its first online poll reveals respondents are keen to get access to equity spreads.

The data and analytics provider will release new metrics and trends in one of the following areas on a weekly basis: systematic internalizers, periodic auctions, block trading volumes, the impact of double volume caps, equity spreads, and exchange-traded fund spreads. The order of the releases will be dictated by an online poll.

"If someone spots a certain trend and wants to understand the underlying datasets that were used to visualize this trend, they can now do that with 250days.com," says Robin Mess, CEO of Big XYT. The data is also useful for looking at the impact of Mifid II, he adds.

The website leverages Big XYT's data analytics solution, Liquidity Cockpit, a cloud-based platform comprised of tick data and market share statistics across all execution venues that provides a reference for liquidity analytics.

Amelia Axelsen

Chainalysis Gets $30M in Funding

Crypto asset research firm Chainalysis received a $30 million investment to aid its expansion push, and develop new research around the crypto industry.

The series B financing round was led by venture capital firm Accel and will be used to open a new office in London that will be primarily focused on research and development. It will also help fund the hiring of additional sales and marketing employees, particularly for Europe and Asia. As part of the financing deal, Accel partner Philippe Botteri will join the Chainalysis board.

Chainalysis started four years ago and provides information on parties involved in a crypto asset transaction, including banks, exchanges, and traders. Michael Gronager, co-founder and CEO of Chainalysis, says research papers into the industry are lacking.

"What we're looking to do in London is more economic research. What is interesting in the crypto economy is that it's so big that we need to see the trends and understand the landscape much better," Gronager says

Emilia David

Fundamental Interactions Launches Auto-Hedging Tool

Enterprise technology platform developer Fundamental Interactions (FI) is releasing a solution aimed at providing a jump-start in liquidity at new exchanges, particularly for token trading.

The "auto-hedger" platform is targeted at start-up exchanges, over-the-counter desks, and automated market-makers operating in cryptocurrencies, security tokens and traditional asset classes, says Julian Jacobson, president and COO at FI.

The solution will be used by VL Financial, a private blockchain-enabled platform operated by Velocity Ledger Technology, which enables the generation of tokenized assets, secondary trading and settlement. Based in Bermuda, VL Financial is in the process of attaining a digital asset license.

Jacobson says automated hedging has been popular in mature asset classes in institutional markets, and is gaining momentum in cryptocurrency trading due to the number of venues proliferating globally that trade in common instruments such as bitcoin and ethereum.

"[The auto-hedger] allows a market operator to kick-start the order book for a new market by tapping into an instrument that is already actively traded at some other venue. It allows a market-maker to arbitrage in instruments that are traded on more than one venue," he says, adding that this is done by re-factoring quote feeds from an active external exchange to supply continuous order liquidity to the internal market book.

"[Auto-hedging] will be vital in the security token market, where instruments are inherently global in nature and require tools to build regional liquidity on central limit order books," he says.

FI's technology has been deployed by securities exchanges, alternative trading systems and inter-dealer brokers across various asset classes and geographies. Jacobson says the auto-hedger is active in foreign exchange, equities, and now cryptocurrencies.

The company's automated liquidity sourcing and hedging infrastructure to support optimal issue, trade and settle functionalities will be available as a plug-in to its existing Neutron suite of products.

Jacobson says the auto-hedger uses proprietary mechanics to minimize slippage and boost profitability at target venues. "This includes dynamic delays and fee-aware mechanics based on maker/taker pricing dynamics at the target venues," he says.

The service has two legs: auto-quoting and auto-hedging. The auto-quoting process converts bid–ask quotes from external exchange market data feeds into orders to create liquidity, while the auto-hedger optimally liquidates positions resulting from the auto-quoting process.

The auto-hedger runs on the core FI stack, a mature Java-based platform that has been operational for more than eight years in the context of exchange, smart routing and automated market-making, says Jacobson.

Wei-Shen Wong

Velocimetrics, Napatech Team Up to Slash Trading Delays

Velocimetrics is partnering with Napatech to reduce tick-to-trade latency by addressing data and internal system issues.

Paul Spencer
Velocimetrics

Paul Spencer, COO of Velocimetrics, says firms that use its software—designed to monitor high volumes of messages delivered at a rapid pace during trading transactions—frequently encounter problems with market data delivery. The real-time performance analytics provider is able to reconstruct the trading lifecycle in real time from quote and trade activity on trading venues.

"We inform traders about how well their platforms are behaving, and therefore how competitive, from a financial perspective, their trading is," he says. "In the event that trading platforms don't perform well, it's almost certain to develop into poor trading performance, financial losses, and so on, which is why it's so important for a trading organization to depend on their trading for revenue streams. We provide a real-time view of the performance of their platforms."

Napatech solutions have been integrated into Velcometrics' software to enable the more accurate reconstruction of trades through the use of its capture technology.

Amelia Axelsen

Arachnys Joins Oracle as Part of Wider Partnership Strategy

A new tie-up with Oracle is the latest step in Arachnys' decision to build strategic partnerships with other firms in 2019.

Arachnys' Navigator, part of its cloud-native customer risk intelligence platform, will be integrated into Oracle's enterprise content management system. The integration will be added to Oracle's Financial Services Financial Crime and Compliance Management to enable clients to leverage additional capabilities to combat crime, including access to a content library for financial crime investigations and know-your-customer (KYC) profile record completion.

Ed Sander, president of Arachnys, says financial institutions are increasingly trying to solve regulatory demands with a focus on KYC information and how it is used for financial crime risk and prevention. He says firms have to perform enhanced due diligence investigations on how information is used and pulled from external sources, resulting in huge data location efforts. As a cloud-based platform, Arachnys aims to onboard and integrate solution providers to address specific regulatory issues.

Amelia Axelsen

CAT'S TALE:

How Thesys, the SROs and the SEC Mishandled the Consolidated Audit Trail

WatersTechnology investigates the SEC's well-intentioned but torturous journey to create a stock-trading database for the US, why Thesys was ousted, and where the project goes from here. By James Rundle and Anthony Malakian

The removal of the technology company building an ambitious database to track all equity and options trades in the US sent shockwaves through Wall Street at the end of January, providing a dramatic end to the first act of an already-theatrical story.

Yet those familiar with the construction of the Consolidated Audit Trail (CAT) say that the decision to drop Thesys CAT—a subsidiary of technology vendor Thesys Technologies that beat numerous established firms to win the contract in early 2017—is just the latest in a series of episodes that have characterized the troubled nature of the CAT.

The dozens of insiders and experts who spoke with *WatersTechnology* for this report paint a picture of a combination of mismanagement on all sides, infighting, inflated expectations, regulatory inaction and overly ambitious projections, miring the CAT in a state of limbo, half-active and half-finished, even as it remains dangerously out of compliance with the rule that authorized it in the first place.

These sources say problems first began to appear with the CAT long before January 31, when the self-regulatory organizations (SROs) tasked with running the project fired Thesys, going back even before the bidding process, and continuing through the subsequent delays that occurred in 2017 and the go-live in 2018, and that the blame for the disruption cannot be laid at the feet of any one of the entities involved, but is spread among the vendors, the SROs and the regulators alike.

Early Errors

Following the 2010 Flash Crash, in 2012, the US Securities and Exchange

"I recognize that recently the SROs have worked together to develop an action plan for bringing the CAT on-line, albeit on a delayed basis. Further, it is clear that the SROs' increased engagement with the SEC in recent days has been constructive. However, I am not in a position to support the issuance of the requested relief on the terms currently proposed." **Statement from Jay Clayton, Securities and Exchange Commission**

Commission (SEC) approved Rule 613, mandating the National Market System (NMS) exchanges to begin work on a comprehensive audit trail of market activity. The Financial Industry Regulatory Authority (Finra) had operated its own Order Audit Trail System (Oats) since the late 1990s, but the CAT would be an altogether different beast: Whereas Oats only collected data from the NMS exchanges, the CAT would capture all trade data, from all market participants. Yet despite the regulatory impetus, sources close to the regulators and the SROs at that time say there wasn't universal support for the CAT.

"I think what the industry really wanted was Finra to continue doing Oats, because it's crappy and opaque. The CAT is granular, time-stamped data that's shared among the exchanges, so NYSE gets to see Nasdaq's order handling, Nasdaq gets to see Bats, and so forth," says a source familiar with the early days of the CAT.

Despite a lack of unanimity on its purpose, however, the SROs published a request-for-proposal (RFP) in 2013, with responses due by March in the following year, in which firms would bid to build and operate the system on behalf of the NMS Plan. It would take years to reach that stage.

Throughout 2014, the SROs shortlisted 10 firms from 31 initial bidders, and filed their initial plan with the SEC. It would be amended and restated multiple times before the SEC put it forward for public comment in April 2016, finally approving it in November—already four years after its mandate to create the CAT.

By this time, the number of competitors vying to build the CAT had been whittled down to a handful. Finra had long been considered the front runner, owing to its experience operating Oats, but sources say a change of the guard at the very top of the regulator also changed its outlook. Richard Ketchum, then CEO of Finra, had been an ardent supporter of the CAT—and, crucially, of Finra being the one to build it. However, Ketchum announced his retirement in 2016, with Robert Cook taking over as the head of the regulator.

Sources say Finra had been growing increasingly uncomfortable with the demands that the contract would place on it—some say there was an element of a conflict of interest between it processing this data and being the body responsible for regulating broker-dealers; others say Finra's discomfort stemmed more from what it would be asked to perform as part of the project.

"The only thing, in my opinion, that tanked it for Finra was the fact that Ketchum had just left: He was the one who really wanted the CAT for Finra. Ketchum was a businessman—he saw the dollar signs. Cook didn't want the CAT. Cook is a true-believer regulator, and he saw the conflict-of-interest issue," says one person familiar with the bidding process, although sources close to the regulator's thinking dispute that Cook put the kibosh on the CAT.

According to those involved at the time, Finra's interest began to wane—although it remains a vocal proponent of the CAT's benefits in terms of surveillance—leaving the field open for Thesys to step in. The vendor, at the time an arm of proprietary trading shop Tradeworx, had previously built a similar system for the SEC, known as the Market Information and Data Analysis System, or Midas.

This helped, of course, but it wasn't the only reason why the SROs chose Tradeworx. Multiple sources confirm to *WatersTechnology* that, in comparison to some of the bids submitted by other shortlisted firms, Thesys proposed to build the CAT at a cost far below everyone else's projections. The bid numbers remain confidential, and cannot be independently verified, but estimates of Thesys' bid from sources place it around 50 percent cheaper or more than those at the top end of the scale. A 2017 Finra rule filing would subsequently reveal that the CAT would cost the industry just over $50 million for that fiscal year, with $37.5 million earmarked for development.

Multiple sources cite this as the start of problems with the CAT's construction, leaving aside what some call prevarication and delay tactics on the part of the SROs up to this date. Thesys, they say, underestimated both the cost and the complexity of what it was bidding on. In effect, the company bit off more than it could chew.

"We all thought Finra was going to win," says a person close to the selection process. "They were both bidders and on the selection committee. It was a ridiculous process. But then Finra backed out at the last minute. So, at the end of the process, the only bidder left standing was Thesys, and that bid was accepted—a bid that, in my opinion, was way too low to build the CAT."

But if the SROs agreed at the time, it didn't show. Thesys was confirmed as the plan processor for the CAT on January 17, 2017, although *WatersTechnology* understands that the contract wasn't officially signed until April. This gave the vendor just seven months to deliver the platform for the first phase.

Things started to go wrong almost immediately.

Missteps

Thesys would later break away from Tradeworx and become its own business, Thesys Technologies, and establish Thesys CAT LLC as a subsidiary company designed to handle the build-out and operations of the CAT in early 2018. This effectively firewalled it from Thesys' other operations, partly to nullify concerns that a third-party vendor would have an enormous advantage over its competitors owing to the information it had flowing through its pipes on a daily basis. For now, however, it had an enormous contract on its hands, but a shocking lack of guidance on how to accomplish it.

One of the first critical missteps in the CAT's construction, multiple sources say, was the dissolution of working groups and management structure within the NMS Committee, following the appointment of Thesys as a plan processor. This triggered months where the vendor was operating in the dark, without coordination or direction from the SROs, outside of loosely organized conference calls and meetings.

Insiders say any chance of delivery was crippled by the inability of the SROs to agree on basic elements of the platform's design and specifications. "The design kept changing and there was just never going to be enough time for such a monumental project [to be delivered]," says a person familiar with the early days of the CAT's development.

The fact that there was no single guiding hand behind the project—rather, dozens of people with their own agendas trying to come to a common conclusion—meant decision-making was critically slow at the best of times.

"From a technical point of view, it's very complicated, but also from a decision-making, organizational structure—all those kinds of things—it was very complicated as well, and it didn't have enough time," says David Campbell, vice president at Broadridge, which had also bid for the CAT contract.

The CAT, effectively, was in trouble from the word go. Leaving aside the fact that Thesys had been given the contract with little time to meet the first-phase deadline, the CAT had also started to attract an enormous amount of criticism and concern regarding cybersecurity. A number of major breaches had occurred already in 2017: Credit agency Equifax had been compromised by criminals, exposing the personal data of tens of millions of Americans, and even the SEC's company filings system was breached, resulting in fears that personally identifiable information had potentially been compromised.

With even the SEC seemingly not safe from hackers, the CAT became something of a cybersecurity whipping boy in the media and in Congress, resulting in SEC chair Jay Clayton being grilled in both House and Senate hearings about what information the CAT would be collecting, and how it would be protected. The SEC found itself in an awkward position—it was the SROs that were tasked with building the CAT, yet the SEC was increasingly being asked to shoulder responsibility for its defenses. In addition, it was getting dragged into an uncomfortable discussion about what types of information the CAT would collect, and whether that was appropriate.

As Clayton was being grilled by Congress, politicians were urging the SEC to the delay the rollout of the CAT. Republican Congressman Jeb Hensarling of Texas, then-chair of the House Financial Services Committee, added his concerns at a hearing on October 4, 2017. "With the [CAT] serving as a central repository for order and trading activity data, I urge the SEC, again, to delay its implementation date until the Commission can ensure that the appropriate safeguards and internal controls are in place to protect this data," he said—something Clayton firmly ruled out, although he acknowledged that the SEC would reexamine what type of data it would collect.

The CAT would later come under additional political pressure when a bill that sought to prevent the CAT from collecting personally identifiable information (PII), cleared the House Financial Services Committee in mid-2018. That bill could have forced a re-engineering of the entire system at a delicate time, months away from the revised November 2018 implementation of phase one, but failed to clear the House floor.

Delays

At the time, this all proved too much for the SROs and for Thesys, all of which were quickly realizing they didn't have a hope of sticking to the original timeline. As November approached, the NMS Plan put together an alternate proposal in which timelines for the various phases of implementation would be delayed by up to a year or more.

They had little reason to believe that the SEC (which declined to comment for this article) wouldn't approve the changes. Up until that point, the agency had proved remarkably amenable to amendments and adjustments to the 2014 plan, to the point where some sources say that even extraordinarily dubious reasons for amendments were being passed through and rubber stamped.

"There were several delays in the RFP process, and each time the SROs submitted a request for approval of delays, and each time the SEC agreed to these well-written—even though it was bullshit—submissions," says a source involved in the original bidding process.

On November 13, 2017, the SROs hand-delivered their revised plan to the SEC, two days before they were due to begin submitting reports to the CAT, which at that point, simply did not exist.

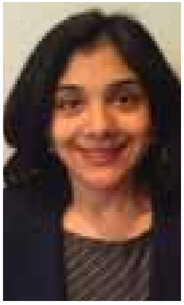
Clayton refused the request on November 14.

"I recognize that recently the SROs have worked together to develop an action plan for bringing the CAT online, albeit on a delayed basis. Further, it is clear that the SROs' increased engagement with the SEC in recent days has been constructive," said Clayton in a statement. "However, I am not in a position to support the issuance of the requested relief on the terms currently proposed."

As far as the SEC was concerned, he said, the original timeframes still applied. November 15 came and went without a single report being filed, and the CAT was officially out of compliance.

Despite this, an enforcement action from the SEC failed to materialize. In the absence of any other guidance, the SROs said they were continuing to work for their revised—and rejected—plan. The SEC would remain publicly silent on the matter for months to come.

The SROs decided that work couldn't proceed without an appropriate chief information security officer (CISO) being appointed to oversee the protection of the CAT, thanks to the criticism it had come under in recent months. Here, too, the weaknesses of the NMS structure—and getting nearly two-dozen people to agree on something—became apparent. People familiar with the meetings to approve a CISO describe a series of candidates being presented to the SROs, all of whom were rejected for one reason or another in a series of meetings rife with disagreement and vacillation.



Manisha Kimmel
Securities and Exchange Commission

"It was the longest hiring of a CISO in history," says one person familiar with the hiring process.

Discussions continued for months, until in early February, Thesys announced the appointment of Vas Rajan, the former CISO of CLS Bank, as its cyber chief. He hit the ground running, filing a security plan shortly after, which was approved in May. Indeed, this period marked something of a turning point for the project. It was around this time that the Operating Committee re-established its working groups to guide the development of the CAT, a process that stretched through to the summer. It also appointed a leadership team, led by Nasdaq's Cindy Retterer and supported by NYSE's Soniya Shrivastav, Finra's Shelly Bohlin and Cboe's Tom Busch in June to drive the project forward.

"The CAT NMS group and the SROs really started to figure this out last summer when they came up with the streams and the stream leads and they started to assign more individual responsibility to this person, or this group is in charge of figuring this out, versus everything being done at that all-the-SROs-together level," says Broadridge's Campbell.

It was also around this time that work began in earnest on building the platform itself, and, perhaps, when the scope of what was being asked began to become clear to its builders.

Thesys CAT had partnered with a number of firms from the word go—law firm Latham & Watkins (for legal counsel), IBM (to host the platform), and broker Rosenblatt Securities were all named as partners in its initial bid—though it is now understood that Amazon Web Services would eventually host the platform. However, the real firepower came from the appointment of Sapient. Widely regarded as a specialist in the field of regulatory reporting, Sapient had been engaged in similar trade reporting projects in Europe through reforms introduced by the Markets in Financial Instruments Regulation, helping banks to interface with Approved Publication Arrangements that went live in January 2017, not entirely without incident.

Now, it was being contracted to build the systems on the other end—albeit secretly. Sources familiar with Sapient's work say that its involvement in the project was kept very quiet, even internally, and that only a select group knew that it was working on the CAT.

The distribution of work between Thesys and Sapient is difficult to determine, although it's clear that Sapient handled a range of work in at least an augmentative capacity, from building the front-end user interfaces through to query engines, and major architectural concerns. With the new structure and coordination provided by the Operating Committee, elements of the CAT began to take shape, although sources say that work remained slow even then.

It still wasn't enough. While the SEC acknowledged that the project was now working to its new proposed timeframes—even though it stopped short of explicitly approving them—and that progress was being made, delays were, at this point, inevitable.

Thesys informed the SROs that the full functionality for phase one of implementation would not be available for the November 15 launch, although it would begin ingesting data in a limited capacity. That day came and went largely without incident, sources say, and full functionality was intended to be put in place by January 31. That deadline, too, would end up being pushed back, according to subsequent testimony from the SEC's Clayton, who was rapidly losing patience.

"Here's the analogy that I would use: When the SEC wrote this rule, think of 13 crazy aunts and uncles and they are the people that the SROs put in charge of this," says a source familiar with the initial process. "Think of the SEC putting them in a van, driving them out into the desert, handing them shovels and saying, 'Dig your own graves, we'll be back in a year!' The SEC comes back, and these guys are still standing with shovels and they're like, 'But we told you to dig your own graves! This time, we're serious. We'll come back in a year and this time you'd better have dug them.' They come back and they're still standing there."

For the SEC, it was fast becoming the last straw.

Repercussions

It was after the November go-live that the SEC seemed to show a pronounced change in attitude. On December 11, testifying before the Senate Committee on Banking, Housing and Urban Affairs, Clayton came out swinging on the subject of the CAT.

"While the CAT has now begun receiving equity and options data with limited functionality, the SROs remain out of compliance with the CAT NMS Plan today," he said. "The SROs are making some progress, but the development and implementation process remains slow and cumbersome due largely to what I believe are project governance and project management issues experienced by the SROs."

The SROs had, Clayton said, set out a more detailed roadmap after requests from SEC staff, but Thesys had subsequently informed them that it would not be able to deliver full functionality for the first phase in line with this, and that the SROs had subsequently informed the regulator that the first phase would not be fully implemented until March 31—nearly 18 months after the original deadline.

"We remain frustrated with failure of the SROs to meet their obligations, and the delays in the development of the CAT," he continued.

The US government shutdown didn't help matters. Starting on December 22, the shutdown lasted for more than a month, with the government officially reopening on January 25, 2019. Because the SEC draws its funding from a mix of government appropriations and fees paid to it by regulated entities, and as such, could keep critical functions operating, it wasn't as hobbled as some federal bodies. But its ability to move on issues with the CAT was still hindered, even as market oversight continued amid the chaos of other departments being reduced to skeleton staff.

However, when the government reopened, the SEC moved quickly and dramatically, signaling that Clayton's remarks hadn't just been hot air in the face of a Senate committee. On January 29, 2019, it announced the appointment of former Refinitiv compliance chief Manisha Kimmel as a senior policy advisor to Clayton, with a brief explicitly focused around the CAT.

Many see this as a long-awaited appointment of a "CAT tsar" by the SEC—a person who would finally represent the agency in meetings regarding the CAT, and who would be empowered to drive the project forward. This, some said, had been clearly lacking to date, leading to many of the governance and project management issues faced by the CAT, highlighted in Clayton's testimony.

Crucially, people who know Kimmel say she is precisely the right person for the job. She has been deeply entrenched in the CAT project already, having served on its advisory committee, as well as through her work as a managing director of data industry association the Financial Information Forum. More than that, they say, she can get the CAT over the line.

"You have to be able to execute. There are people who can talk the talk, who can teach, but they can't get the ball across the goal line," says Thomas Jordan, president and CEO of consultancy Jordan & Jordan. "I worked with her and I've seen her get the ball across the goal line. Sometimes you have to compromise to get it done, but she knows how to do it."

Moreover, sources say, these moves betray a growing impatience not just among the SEC's top brass, but among its staff as well, in the languid progress that has been made on the CAT to date. In any case, Kimmel's appointment presaged the biggest controversy to face the CAT project yet, when just two days later, the SROs announced that Thesys would no longer be the plan processor.

Endgame

By all accounts, there had been problems brewing between Thesys CAT and the SROs for some time. Sources familiar with Thesys say that the vendor had been growing frustrated with the SROs over the timeliness of their payments to the vendor for work accomplished, while those familiar with the SROs say the vendor had finally begun to appreciate the scale of what it had signed up for. It had encountered problems with technical aspects and was asking the Operating Committee for more money, they claim.

Then, on January 31, *The Wall Street Journal* reported that Thesys had been fired as the plan processor. The Operating Committee released a statement shortly after, saying that Thesys would no longer build and operate the CAT, although it would assist in the transition to a new processor, and that while some testing phases would be affected, the core technical specifications would not change.

The full picture of exactly what happened around January 31, and the exact reasons behind Thesys' ousting, remain unclear, with accounts differing about precisely what occurred. People on both sides accuse the other of handling the situation poorly—sources familiar with the situation say, alternately, that when Thesys asked for more money to accomplish its tasks, relations became acrimonious, while others say the news of Thesys' firing had already been leaked while the company was being told it would not be needed for the next phases of implementation. A number of alternate strategies were on the table, including a possible acquisition of Thesys CAT LLC by a third party, but these were ultimately not pursued and the Operating Committee issued its statement saying that it was parting ways with the vendor.

News reports tipped Finra, which had been the front runner initially, to become the new plan processor. Sources confirm to *WatersTechnology* that Finra is in discussions to take over the role, although Finra itself declined to comment and referred queries to spokespeople for the SROs. At the time of publication, the identity of the new plan processor had not been formally announced.

Just how long it will take the CAT to transfer from Thesys to Finra is also unclear, although industry experts have been warning broker-dealers, who are due to report to the CAT in phase two, that they shouldn't expect any significant delays to implementation timelines.

Indeed, reaction to the news has been measured, even if it took most of the industry by surprise. Most say that, despite the change in processor, enough experience has been gained for the project to shed many of the difficulties that have plagued it to date.

"I think there have been a lot of lessons learned and hopefully, while they're negotiating and getting the new plan processor in place, they can utilize some of those lessons learned to make sure that the next step of the process works better," says Broadridge's Campbell.

The Long March

On February 20, the CAT NMS Operating Committee hosted a webcast to reassure market participants that work was proceeding, but declined to name the new processor.

Putting concerns over this being another delay tactic on the part of the SROs aside, there are still a multitude of issues that need to be addressed. Chief among them is the state of the technology underlying the CAT: While most sources assume that CAT NMS owns the intellectual property, the particulars of the contract are not public. Also important is that while Thesys will not be the plan processor moving forward, the CAT is currently operational in a limited form, and ingesting upwards of 100 billion records per day.

Since CAT NMS has said that core technical specifications won't change, it's a safe bet that the same technology will remain in place. And the fact that the platform is hosted in the cloud will make some aspects easier, but other details are yet to be fully addressed. For example, an even more disruptive element could be the parts that haven't been pushed to production yet, or are still being developed. Taking over a technology project is a difficult task at the best of times, let alone one as nationally significant as the CAT, which already attracts extreme scrutiny from both regulators and the media, and which still isn't finished.

"There are also a lot of other things still outstanding in terms of fields, linkages, a lot of the detail underneath specifically how the scenarios would need to work," says Broadridge's Campbell. "[The CAT] is more complicated than what it's replacing, and there are a lot of open questions that people still had."

As to the future of the CAT, the time has long passed when it would simply be theory, or a form of Oats-plus. Those actively working with firms on projects say that the broker-dealers, not the SROs, have already been sold on what the CAT can provide for them in terms of data management, and that firms have already budgeted plans and assigned resources to those efforts.

"While things are perceived to be up in the air, given the change within the plan processor, the effort that has been done up to date is being looked at twofold," says Michael Drews, managing principal at Capco. "First, [industry participants] are not overly concerned that this is going to go away; this is going to happen and they're going to continue to prepare and ready themselves. The other aspect is you're looking at data that has been siloed historically, and the ability to link that data … can be leveraged for more than just this reporting obligation, and it can benefit you from a business perspective and functional-area perspective."

That said, an element of risk to the project still remains. SEC enforcement action is still a distinct possibility, particularly now that the regulator has been so vocal about its displeasure with the SROs—and at this point, according to people familiar with the regulator, another delay may be inevitable.

Indeed, should delays occur—as is already the case with the testing schedule being pushed back—they will have to be short and sweet, lest they risk causing further disruption to an industry already beset with regulatory projects.

"The problem is that at these companies you have certain resources assigned to projects and there's no shortage of projects," says Jordan & Jordan's Jordan. "There are still issues that have to get resolved in Europe on Mifid. What if Brexit happens? There's going to be competition for those resources. So this delay has to be short, so that people can keep their resources in place that they've been preparing while getting ready for the CAT."

Most expect the transition to a new processor to be smooth, and that the problems of the past seem to be behind the project. Yet, if the chaos of the past few years—and, particularly, the past few weeks—has demonstrated, when it comes to the CAT, nothing is certain. W

FIXED INCOME ESG DATA:

Materially Different

The ESG space is growing rapidly and gaining more attention, but one area that has been largely ignored by data providers is that of ESG information specific to fixed-income investors. Anthony Malakian talks with asset managers to better understand why this is likely to change in the coming years.

Miami Beach sits with the Atlantic Ocean to the east and Biscayne Bay to the west. The sandbar was bought in 1870 by Henry Lum and his son Charles for $0.25 per acre. After failing to turn it into a coconut farm, it was sold to Elnathan Field and Ezra Osborne, who flipped it to John S. Collins and his son-in-law, Thomas Pancoast. The beach would later be connected to the city of Miami via a wooden bridge, built in 1915.

The mangroves were eventually cleared out, the channels deepened to allow for ships to freely pass through, and soil was brought in to create usable land, according to the *Miami New Times*. The Miami Historical Association notes that 500,000 Army Air Corps cadets were stationed in Miami Beach to train before being shipped off to World War II. After Fidel Castro seized control of Cuba in 1959, "millions of Cubans poured into the area," having a major effect on the area's demographics.

Today, Miami Beach is a beautiful resort town, teeming with both young and old looking for a good time and relaxation. It's is also extremely vulnerable to sea-level rise. Nonprofit research firm Climate Central lists Miami as the second most-vulnerable city to coastal flooding in the US behind New York City. It's costing the city and the state of Florida very real money already. Even though the sea has only risen by eight inches since 1950, the state is planning to spend over $4 billion on "sea-level-rise solutions, which include protecting sewage systems, raising roads, storm-water [drain] improvements, and seawalls," according to sealevelrise.org.

Miami's taxpayers are also loosening the purse strings to help protect the city's future. In the November 2017 elections, voters chose in favor of the $400 million Miami Forever general obligation bond, giving their local government "the ability to borrow the money on the municipal bond market, leveraging a new property tax to pay for storm drain upgrades, economic development grants and other government initiatives."

Only three months earlier, residents were reminded why the bond might prove useful after Tropical Storm Emily dropped seven inches of continuous rain on Miami Beach, which knocked out the power for several water pump stations, and which led to extreme flooding. The total damage is estimated to have cost $10 million for the region, according to the National Hurricane Center.

Miami's tenuous future is just one of many examples around the globe demonstrating why investors are increasingly incorporating environmental, social and governance (ESG) data into their analysis of companies. But perhaps the greatest beneficiaries of more robust and targeted ESG datasets are fixed-income traders and portfolio managers. According to consultancy Opimas, total spending on ESG data, including ESG content and indices, will hit $745 million by 2020, up from $505 million in 2018.

Greenfield

Incorporating ESG factor models into the investment process has largely been the domain of equities to date, but it's starting to creep into bonds. In 2017, the Bloomberg Barclays MSCI ESG Fixed-Income Indexes launched to address "the evolving needs of institutional investors, who increasingly aim to incorporate ESG considerations into their strategic asset allocation," according to a launch statement from the companies involved.

In April 2018, JP Morgan launched a suite of global fixed-income indices, called the JP Morgan ESG (JESG). "The idea for the index was conceived in collaboration with BlackRock to address growing demand from bond investors looking for a benchmark that targets emerging market issuers with strong ESG practices," the bank said at the time.

According to the bank, JESG EMBI index outperformed its benchmark by 46 basis points (bps), JESG GBI-EM by 35 bps and JESG CEMBI by 20 bps in 2018. JP Morgan expects that $20 billion to $30 billion will be benchmarked to its JESG indices by then end of 2019, "up from nearly $1 billion currently, driven largely by investors switching to the ESG variants of our flagship indices," according to an internal research report seen by *WatersTechnology*.

Others are getting in on the game—last year, Nuveen, iShares and Sage Advisory launched ESG fixed-income ETFs.

Axel Pierron, managing director and cofounder of Opimas, says firms have been slow to incorporate ESG into fixed income because there was a dearth of ESG indices and ETFs, and specialist data vendors weren't focused on the space, or at least, not nearly as much as they are for equities. That's slowly changing, and as a result, these datasets can be used to bolster risk practices.

"In the bond market, you have less coverage compared to the equity market; that's why the market has been largely left outside of the analysis," Pierron says. "What we have found, though, is a lot of interest from asset owners, especially insurance companies, on the 'E' side. Insurance companies believe there will be an impact from global warming and that as insurance companies, they will have to pay for environmental disaster. So they're now seeing an opportunity to use their investment to drive change."

Fixed income is a natural fit for ESG, as both are more focused on the long-term horizon—the bond market has specific debts as it pertains to time and ESG data tends not to be real time (or anywhere close to real time, for that matter).

The firms providing fixed-income ESG datasets are, for now, the same as those providing ESG data for equities and it's a field without specialists—so far. The growth of the green and social-bond markets may change that—the green-bond market exceeded $167 billion in new issuance during 2018 and it is experiencing a compound annual growth rate of 85 percent over the past five years, according to the not-for-profit Climate Bonds Initiative.

Yet, while there's a hunger for information, data providers will have to better understand the needs of fixed-income investors.

Materiality

Breckinridge Capital Advisors is nestled next to Rowes Wharf on the Boston Harbor off the Fort Point Channel. Founded in 1993 by Peter Coffin, it manages over $36 billion in assets, with about $30 billion invested in the municipal bond (munis) market. It specializes in investment-grade fixed-income portfolio management, with a commitment to ESG and sustainability concerns.

Rob Fernandez, director of ESG research at Breckinridge, says the company is focused on capital preservation, so ESG data is vital to get a good understanding of its borrowers.

"We saw [incorporating ESG] as an important way to enhance our credit research," he says. "So we're really focused on bottom, fundamental research, on getting a good understanding of our corporate and municipal borrowers, and developing that comprehensive picture, ensuring that they're going to repay over time. We felt that these ESG issues could have a real impact on the credit quality of companies and municipalities, and in certain cases—though it's not broad-based—we've seen examples where these issues have created credit distress."

So, what does this look like in action? The world of munis offers an example. Say, for instance, the firm is looking to invest in a water utility—it would typically gather information on water supply projections and drought conditions for more real-time data; it also looks at longer-term factors, including water supply and management procedures, as well as water quality, which is becoming increasingly important. Take the lessons learned from Flint, Michigan, and its toxic water scandal, which was a governance (and government) problem that was exacerbated by deficient infrastructure.

"If the quality of the water is not sufficient, that's a huge problem in terms of your ability to manage the utility successfully to generate cash flow to pay bondholders back, right?" says Andrew Teras, a Breckinridge senior research analyst, with a focus on municipal credit and analysis.

For a transportation bond, such as those issued by airports, analysts consider governance issues, carbon emissions, and if they're located near places susceptible to sea-level rise—examples being Boston Logan International, San Francisco International or New York's LaGuardia Airport. There are also bonds pertaining to school districts, which require more emphasis on social considerations such as academic performance relative to the income level of the population they serve—the worse the performance, the less likely that the community is going to step up and want to support payments to bondholders.

These examples show the unique challenges facing data providers in the fixed-income space—materiality is different for each investment product, and there are many investment products with nuanced considerations that fall beyond simply giving a single company an A-rating on ESG factors, as is often seen in equities.

"Materiality is constantly changing. I don't think anyone, including us, has 100 percent of the right answers about which indicators are the most material in terms of how it ties back into credit research," Teras says. "We're constantly evolving in terms of the way we're thinking about these risks. We have added quantitative and qualitative elements to the research process and we've taken some out when we said, 'You know what, we tried this for a few years—we're not sure it's material, so we're going to try something new.' [The fixed-income ESG data space] is still very, very new, particularly in the muni market. So you have to be willing to try things and evolve as data becomes more and more available."

Fernandez, who works primarily on the corporates side of the firm, says that early on when they'd think about ESG research they'd take note of a company's philanthropy program and where it was donating money in areas where it operates, but they wondered whether or not it had a material impact on the firm's credit quality or credit worthiness. What they found was that it probably didn't.

He says the Sustainability Accounting Standards Board (SASB) has been useful in helping investors to focus on key issues. As a result, they keep SASB's framework for a particular sector in mind when examining a company. From there, analysts will incorporate MSCI and Sustainalytics reports to get a feel for whether what they're saying is important for a particular company or sector.

"If you're looking at a corporate sustainability report and they say something about carbon emissions, but maybe carbon emission aren't particularly relevant for that sector, maybe it's not a key issue—say, for banking—it's more about governance and maybe social-related aspects that are the real material issues. If they're reporting on carbon emissions and they have a plan for it and a target, and they're making progress, that's all really good, but that might not be what the analysts should really be focusing their time on. Whether they cut emissions or not may not have a real material impact for them, where it would for a company in the energy sector, or a company in retail that has a real, large-store footprint," Fernandez says.

A Concoction

Blaine Townsend has been involved in the sustainable investment space for three decades, first as a journalist writing about corporate social responsibility and then, starting in 1991, as an investor. Today, he is director of sustainable, responsible and impact investing at Bailard Wealth Management, which was founded in 1969 by the late Tom Bailard and is located 30 minutes south of San Francisco.

The ESG data space was quite different when Townsend got his start in 1991 at Muir Investment Trust. Once per month, he would receive a floppy disk through the mail. He can't recall how long it would take to load the massive dataset onto his computer, but it was certainly enough time to go and get a coffee. Some of the information included in the report had been contributed by Townsend himself. The data collected was qualitative and it was acquired, usually, through conversations with individuals, rather than through a tech-based platform.

"We've shifted now to this incredible world of, really, a quantitative framework for ESG investing," he says. "I've seen this arc from really qualitative, hands-on [information] to this explosion among institutional investors who demanded a different level of data granularity, to now having this myriad of choices to sort through and synthesize. The more information that's out there, the more efficient the markets for everybody, and that includes ESG issues."

Bailard has its own proprietary scoring system called ESG Capture, about 40 percent of which is comprised of scores derived from providers of broader ESG scores. Those outside scores give them some sense of relativity between sectors for, say, the environmental impact of a consumer company, versus an energy company, versus a financial services company.

"That's what the major providers are really good at doing: giving that kind of sensitivity analysis by sector," Townsend says. "But then we have six different independent variables that we're building in to go with those off-the-shelf scores—let's call them deep scores."

As an example, Bailard has found that corporate governance is very important, but then there are factors like political influence and contributions, schematic environmental business lines, gender-lens issues, and how the company is adjusting to climate change. For the latter, they have a factor called Climate Gap, which measures, for instance, if companies are setting goals on reducing carbon emissions. They'll also dig into the datasets provided to them by the vendors to try and find key performance indicators for materiality.

Townsend sees the growth in the green and social bond markets—using debt to fund things that have a positive social and environmental impact—as an indicator that fixed income is ripe for ESG data growth. It's a great way, he says, to use instruments available in the capital markets to fund infrastructure projects and ESG data can also help manage risk.

"Fixed income should really be a sweet spot for ESG, because when you think about ESG, we look at ESG as a way of positioning [corporates and munis] for the world that we're heading into, and a lot of that has to do with risks, right? Risks that are coming our way with respect to natural resources, scarcity, exploitation of human labor and supply chains—the whole host of things that you can surmise from this data that is being constructed. So what we're really trying to do is build portfolios that are positioned for that world. When you think of debt, what is the biggest risk in debt investing? It's default. So anything that can enhance the credit quality and risk analytics of fixed income should be a real boon."

It's also important to remember that this is a nascent space and, as such, there will be mistakes made and lessons to be learned. The story of the Mexico City Airport Trust (MexCAT) bonds, which are all green bonds, can highlight this point best. On October 29, incoming Mexican president Andres Manuel Lopez Obrador stated that he would cancel the new Mexico City airport, which is what the bonds were helping to fund. His announcement led to a massive sell-off, which dragged down many ESG indexes.

This shows that, for all the data in the world, political changes can still wreak havoc on fixed-income portfolios.

A Changing World

On February 7, 2019, US Representative Alexandria Ocasio-Cortez (D-NY) and US Senator Ed Markey (D-Mass.) unveiled their outline for what is being called the Green New Deal, a play on the famous jobs-creation program rolled out by President Theodore Roosevelt during the Great Depression. The proposal aims to tackle both economic inequality and climate change. While it is vague at this point, and has not been brought before Congress, it is clear that in the lead-up to the 2020 US presidential election, climate change and sustainability will serve as major talking points.

Across the pond, Europe has long been the leader in proactively using governmental and local resources to address ESG-related issues. Asia has been on the rise—most notably with Japan's Government Pension Investment Fund (GPIF), the world's largest pension fund, deciding in 2017 to dedicate 10 percent of its stock holdings to responsible investments—but still has ground to make up.

Beyond government officials getting involved in climate change, even militaries are realizing the challenges that climate change presents when it comes to national security and human migration. The US Army Corps of Engineers notes that it has "very high confidence" that global mean sea-level rise could range from a minimum of eight inches to more than six feet by 2100. "Many of the nation's assets related to military readiness, energy, commerce, and ecosystems that support resource-dependent economies are already located at or near the ocean, thus exposing them to risks associated with sea-level rise," it said in a report.

Furthermore, investors have come around to the idea that incorporating ESG factors can be beneficial to the bottom line. In 2015, Harvard Business School published a study that found that firms with high performance on material sustainability issues, as prescribed by the SASB, realized an estimated 3.39 to 8.85 percent annualized alpha improvement over firms that did not rate high by those standards. It's one of numerous studies that point to better returns for firms that rate highly in terms of ESG.

And one needs only to look at South Florida to see that climate change is taking a toll on both taxpayers and insurers—and, thus, will increasingly be factored into fixed-income risk analyses. The 2017 hurricane season proved to be the most costly in US history, with damages exceeding more than $200 billion, led by Hurricanes Harvey, Irma and Maria.

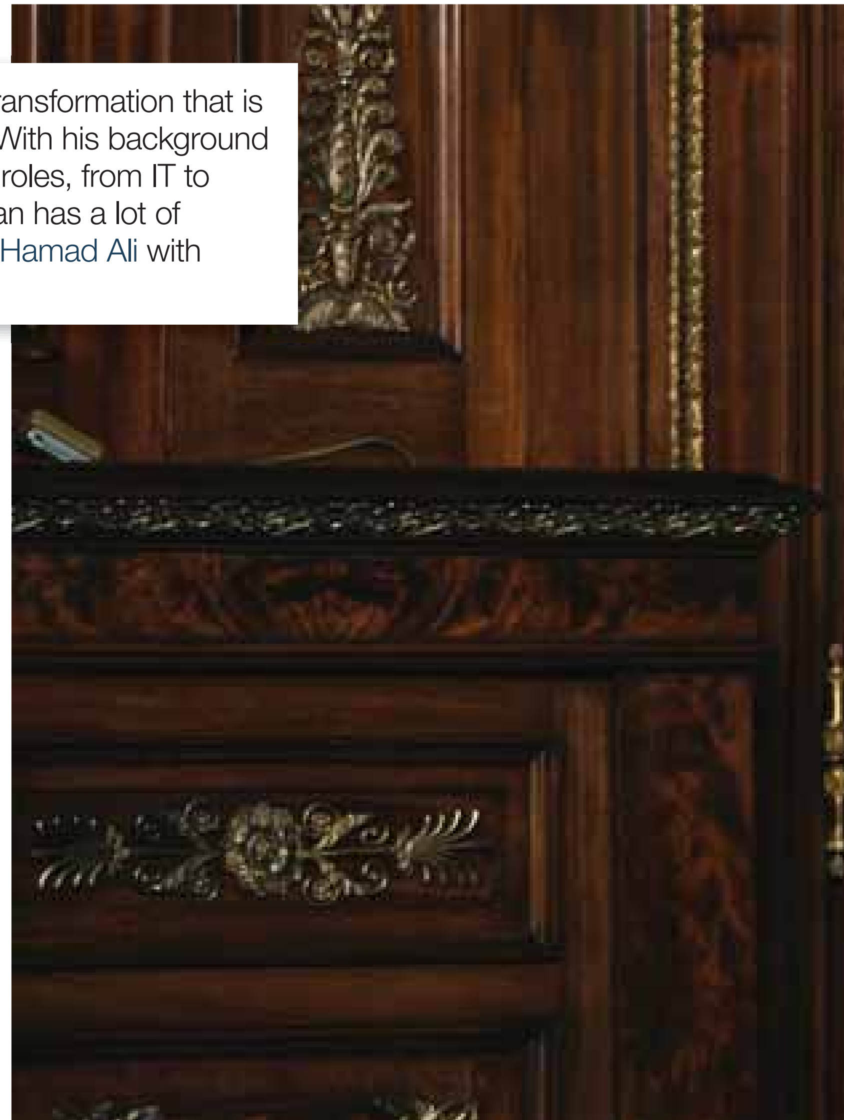
In the capital markets, there's still much room for growth when it comes to ESG data. Steven Heim, director of ESG research at Boston Common Asset Management, which is dedicated to financial returns on social change, notes that the data world for these factors still needs improving.

"Unfortunately, a lot of the [data] quality is very poor, so you still need people who can dig through this information and provide judgement," he says.

Part of the problem is that, despite the ESG field being wide and varied, there isn't a lot of competition when it comes to data providers. The biggest vendors dominate the space and even the specialists aren't great at delivering more customized reports and datasets around material factors that the firm has identified—so it's up to the firm to do a lot of the heavy lifting.

While Boston Common subscribes to different data providers for ESG research, it still has to "triangulate" that information to find common themes with what is being presented in those datasets from its own in-house research teams, to see where they agree and where they disagree. So, the ESG space—and this is beyond fixed income, as Heim says this is an issue for equities, but can be extrapolated out to other asset classes—has room for growth and improvement. But fixed income is a logical place for advancements to be made.

"It will be very important going forward," he says. "I think there's so much more money that could be in the debt securities [market] that it will see more attention." W



Fabrice Silberzan is playing a key role in the transformation that is reshaping BNP Paribas Asset Management. With his background working across different cultures and various roles, from IT to securities and HR, the opera-loving Frenchman has a lot of lessons to share in change management. By Hamad Ali with photos by Emmanuel Fradin

It's fair to say that Fabrice Silberzan, COO of BNP Paribas Asset Management, is a well-traveled man. Over the course of his career, he's worked in traditional banking mainstays in Europe and the US, but also the Far East, the Middle East and everywhere in between. From Britain to Bahrain, he's come to a conclusion about the markets business: While technology is important, the real capital in banking worth a dime is its human capital. Learning how to manage that is the crucial difference between success and failure.

"There are many technologies," he says, "You can decide which technologies are most effective. But there is one factor that I think has been, and will remain, more promising than any technology in the world and that is people. Whatever technology you choose, human capital will be the most important differentiating factor."

It's a common refrain heard among C-level executives in the pages of this magazine, but it's wisdom that is often hard-won. Silberzan is no different—indeed, he recalls a tricky project in 2003, where he had to roll out a money transfer system across Europe. The system worked, he says, but the real problems lay with figuring out the regional idiosyncrasies and requirements of the staff who were assigned to the project, all of whom sought—and, crucially, interpreted—guidance on different levels.

In other words, technology problems are often, at root, people problems—and more specifically, communication and management problems. "One of the things I learned with BNP Paribas, and I am grateful to them for providing me with the opportunity, is how wonderful it is to work with different cultures. But you need to understand the implicit, that is what is not said, is different from what is said. We don't all don't come from the same place and people expect different interactions."

The key, Silberzan says, is listening more. It's an outlook he's tried to implement over a three-decade career at the French bank, which has seen him cross both sides of the Street in more ways than one.

Early Days

Born and raised in Villeneuve-Saint-Georges, a suburb of Paris, and despite early intentions to be a doctor as a 10-year-old boy, Silberzan quickly gravitated toward finance, after a brief flirtation with engineering ambitions.

He studied mathematics and IT at École Nationale Supérieure des Mines de Nancy. One area he specialized

The **Change Manager**

Fabrice Silberzan
BNP Paribas Asset Management

in was operations research, a field very much oriented toward statistics, which gave him a chance to look at how processes could be implemented in an efficient and effective manner. He also studied a lot of mathematics, statistics and programming, which was particularly focused on the C and Pascal languages. He completed his masters with a qualification of Ingenieur Civil des Minesin in 1990.

Post-university wanderlust led Silberzan to look for a job abroad and away from France—even his alma mater, in the city of Nancy, is a mere 90 minutes from the French capital by train. He soon came across an opportunity to work for Banque National de Paris—which would later become BNP Paribas—based in Norway, in 1991. That, he recalls, was kismet. He had applied to work abroad, and the bank needed a candidate willing to relocate. "It was really, I would say, an opportunistic moment, how it happened," he says. After all, 28 years later, he is still with the company.

For the first six months in the role, he was his own boss. There was only one other person in the IT department in Norway at the time, eventually growing into a small IT team with Silberzan at its helm. It was one of his first brushes with the differences in culture between colleagues—people in Norway, he recalls, had a very strong sense of work–life balance, while his tasks varied from the menial—like changing the paper in the printer—to coding software for the bank's back office.

This was also a massive learning curve for him in terms of his professional development. The internet was nowhere near ubiquity, and computing was still at a basic level relative to what it is today—he recalls his first PC was a Dell with a hard disk storage capacity of just 40 megabytes. Still, the education in the banking industry was first rate, not least of all when BNP acquired a Norwegian bank, Kjøbmandsbanken. And he found himself working in all areas of the business.

For Silberzan it was like a school. "I learned banking there because it was quite a small shop—like 100 staff," he says. "But we were doing everything from an automatic teller machine to trading on another floor of the building, from cooperative banking to wealth management."

After four years in Norway, he returned to France and joined BNP's Inspection Générale department, where the firm's auditing is carried out. Silberzan began working as an inspector, and two years later was appointed to the role of head of assignments. He would lead audits with teams to different corners of the world, from Asia to the Americas. In this role, he was able to see and audit different aspects of the organization, becoming involved in everything from investment banking to retail. "It was very international, very diverse, and my job was to look at what was done and to consider whether it was [done] appropriately or not," he says.

After four years in the role, he was appointed head of cash management products and services in 1999. For someone with his background, it was perfect, as this was an area where technology and banking were becoming intertwined. "Technology started to be meaningful for banking and finance," he says. "It was the beginning of algorithmic trading, for example. For cash management it was the moment when our technological capacity would mean something to our client."

The Promise of Technology

The late 1990s were still early days for the internet but technology was moving fast. Silberzan spent a lot of time proposing new solutions to clients, and he was becoming acutely aware that technology never stopped changing. "It was the first internet bubble," he says. "You were always behind something new that had happened, and that a competitor potentially was using, or said it was using. We couldn't spend one day without a vendor coming, just like today, and telling you that you were making the biggest mistake in your life because we were not using the technologies that were proposed that would make you the king of the world."

Silberzan made another move within a few years, being appointed as the head of clearing and market operations in 2002, a move that also saw him transition to the Securities Services arm of the bank, where technology was most effective. Its systems handled billions of dollars' worth of assets being traded, and reliability was key. This was put to the test when Lehman Brothers failed during the 2008 financial crisis, and the markets were sent into turmoil.

Silberzan learned a lot during that time, namely that in a time of stress and volatility in the markets, it is necessary to react as a team, and a manager has to bring calm and sound decision-making to the team so they can carry on with their jobs. It is not a time to defend oneself. In these kinds of crisis moments, he learned it was imperative to speak with colleagues and swiftly make the right decisions.

> "Technology is now everywhere in the organization and in the mind of everyone. The head of marketing thinks technology. The head of client experience thinks technology. For the head of product it is also about technology."

Although he was head of clearing, Silberzan looked after multiple teams in operations. After eight years on the front lines of the crisis, he was made head of human resources (HR) at BNP Paribas Securities Services in 2010, and stayed in the role for five years. His role included activities like workforce planning, personal development and strategic sourcing. Then, in 2015, he was offered the opportunity to join BNP Paribas Asset Management as it embarked on a period of transformation. For Silberzan, while his background was firmly on the sell side, it still felt like going home. He had spent five years in HR, but 20 years dealing with IT, operations and auditing—which dealt with many of the same matters.

The Change-Maker

As he joined the buy-side arm of the bank, change was underway. On the technology front this included working on enhancing its quantitative capacity as well as combining more quant research and quantitative asset management. It also included partnerships with fintechs in areas like smart coding, robo-advice and artificial intelligence.

For the past 18 months, the asset management firm has been implementing a new end-to-end front-office system that will combine risk analytics, portfolio management and transaction trading into one system. In addition to its enhanced scope, it will also have the benefit of replacing around 50 legacy applications that are costly to maintain. Silberzan describes it as changing a large group—complicated to integrate and costly to maintain—into one, wider enterprise. The project is being implement with BlackRock's Aladdin and is expected to go live in May.

"Each of the numerous systems we were using were good but the sum of them created a complexity," he says. "We had to manage several views of the same position that we had to reconcile at all times. That is why we are now implementing one single source of truth across the organization. This is transformational."

Other tech initiatives are firmly underway. He says what the asset management sector is missing is more standard reporting capacity. One example of this is around Solvency II, where Silberzan notes that everyone has developed their own ways to report. "We all have to invent our own manner of formatting our elements," he says. He says there could be room for better cooperation within the industry.

But one of the most transformational technologies for the bank is cloud, which has historically been tricky to implement at large firms such as BNP Paribas Asset Management. Silberzan appreciates the ability to implement new software and developments faster. A growth in data means paying more, but if the data decreases, it costs less.

However, concerns around data privacy mean BNP Paribas is looking at public cloud very carefully. As the firm gets cloud-ready, he estimates implementation will take place in two years. "We are preparing all our information and all our architecture to be cloud-ready. A large part of our information system we be cloud-based. Will everything be cloud based? We don't believe so. I mean, not in the very near future. But a very large part of it will."

The move to cloud will also democratize opportunities for collaboration between banks and fintech firms. "I believe it is competition to some extent," he says. "But there is also a cooperation element. We work with 10 different fintechs. Sometimes it works, sometimes it doesn't work." In certain cases the relationship has developed further, such as BNP Paribas' acquisition in 2017 of Belgian fintech firm Gambit, which specializes in robo-advisory.

More Than a One-Man Show

The bank is also exploring other of emerging technologies such as distributed ledger, or blockchain. In 2017, the asset manager carried out its first blockchain transaction, but there is still some way to go before it becomes more prevalent. Silberzan says blockchain can enhance transactions around subscriptions, redemptions and other areas of asset management.

Blockchain is as much a protocol as a technology, he notes. A technology can be implemented by one party, but a protocol requires at least two to interact. Silberzan says the asset manager is considering opportunities in the market, but says it's not a one-man show.

"I don't believe it will be one asset manager who will have a 'clean' blockchain solution," he says. "It is more about finding the right partnership across the industry that can aggregate a sufficient number of asset managers and distributors so that we can then start working on large-scale change in the industry to implement blockchain."

As a prime use-case, Silberzan points to the implementation of blockchain in document management, where a shared golden source is needed.

There have been a number of well-publicized initiatives by bank consortiums working on blockchain technology. But the asset management industry is different. Silberzan says the banking industry has always been better at organizing itself as an industry. "Asset management is an industry that is not used to sharing infrastructures," he says. "Whether you want it or not, at some stage you will need someone to operate blockchain. I think the solution will come."

Disrupting Traditional IT

One of the fundamental changes at the firm since Silberzan's tenure as COO has been the way work is performed when it comes to technology implementation. The digital team at the asset manager reports to the product organization, which is a provider of not only ideas but technology solutions that will eventually be made at scale by the more traditional IT team, which is also working very closely with them. This is an approach the asset manager has developed into its organization where it picks personnel who are not necessarily technology native, but who are incredibly smart, who can pick up whatever technology exists and help to introduce opportunities for the business.

"When you come only from a 'traditional' technology background you may remain slightly conservative," he says. "When you have a 'single and traditional' IT team you may be tempted to always leverage more of the same, whereas sometimes you need disruptions. We need in our organization to get places where disruption comes. And they need to have leverage."

He points to marketing and product engineering as areas that can be disruptive for IT. "The closer you can get product people to the traditional IT world, the better the result you will have," he says. "People will come without the feeling that prevailed before. This generation will not be afraid, to search in the internet and say 'oh, there is this technology, it seems incredibly interesting, why shouldn't we try it?' And they will try. They will either ask you to try or they will be pushing you all the time to look at the wider open world and to better consider the possibilities that are out there. And this is where you start being disruptive."

He says technology is not the sole property of IT. "Technology is now everywhere in the organization and in the mind of everyone," he says. "The head of marketing thinks technology. The head of client experience thinks technology. For the head of product it is also about technology."

In his free time Silberzan enjoys sports, cooking and music. He listens to classical music, especially opera, naming Bellini and Mozart among his favorites. He also likes Bob Marley and The Rolling Stones and also enjoys singing himself.

The transformation the asset manager began around the time Silberzan became COO is still ongoing. It is working on improving not only the client journey, but also enhancing quantitative capacity as well as combining more quant research with quantitative asset management. Silberzan likens it to building a new investment firm, at the core which, ultimately, is the people who staff it. He says he is proud to see individuals in his teams grow and that, at times, he feels like a football coach. At the end of the day, he is not the one on the field, and the way he sees it, none of what is done in this organization is about him. It is the team that wins. W

Vendors Prep for Initial Margin Big Bang

Technology providers are emerging from all corners as the final phases of initial margin rules closes in, which are expected to capture over 1,000 buy-side and sell-side firms over the next 18 months. By Josephine Gallagher

As smaller banks and asset managers brace themselves for new rules covering how they trade exotic derivatives come into force, lobby groups and vendors are joining forces to create technology that, trading firms say, may be too difficult to manage in-house once the big bang hits.

Later this year, and into 2020, these firms will be required to calculate and exchange initial margin on their derivatives trades that don't pass through clearinghouses. For many, this will be the first time they've had to handle such complex calculations in-house. Although the very largest dealers have been through this process already, experts warn that these smaller market participants may not be ready for the burden that is about to fall on them—and that the clock is ticking.

"Time is running out," says Nosheen Amir-Ebrahimi, managing director at IHS Markit. "Phase four is in six months, phase five is in 18 months. And if you look at the experience from phase one and two, they have taken between 18 and 24 months to get to where they need to in terms of compliance."

The regulatory changes, jointly developed by the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (Iosco), will take effect in September 2019 and September 2020, the fourth and fifth

> "The scary thing is the sheer volume of the 2020 phase-in. We're anticipating on-boarding hundreds of counterparties in that phase and whatever the number is, it multiplies [the workload] by two. So there is a considerable workload to be done,"
> **Liz Lindsay, BMO Capital Markets**

phases of implementation, respectively. While it may be tempting to think of the margin rules as mature and bedded in at this late stage, these two phases will have an enormous impact on the largest segments of global derivatives markets. They are anticipated to bring more than 1,000 banks, asset managers and counterparty firms with margin valuations exceeding €750 billion ($854 billion) in phase four and €8 billion ($9.1 billion) in phase five into scope of the uncleared margin rules.

Vendors have responded accordingly. On January 17, several organizations launched IM offerings in preparation for the next deadline, including the International Swaps and Derivatives Association (Isda), which announced that it has joint forces with London-based law firm Linklaters to launch Create IM, the first release of its Create negotiation platform.

That same month, HIS Markit and AcadiaSoft forged an alliance to enable their margin automation platforms to interoperate, and the CME Group subsidiary, TriOptima launched an initial margin analytics tool. In February, several other firms such as CloudMargin and Cassini Systems—in partnership with Margin Reform—have made subsequent announcements on tech offerings and consultancy services in the run-up to the next phases.

Andrew Kayiira, director of product development at Isda, explains that the time is finally ripe for providers to ramp up technology releases in response to this regulatory pressure. He says the industry is ready to move away from paper contracts and manually led negotiations.

"I don't think at the time [in previous phases] the legal industry was ready to make the shift to an electronic form of negotiation with documentation," Kayiira says. "The timing now coincides with a regulatory push—but also it coincides with the fact that Isda has published documents that made it allowable for us to do digitization."

There is also danger in distraction. IHS Markit's Amir-Ebrahimi says that while the uncertainty surrounding the UK's planned departure from the European Union at the end of March 2019 has occupied much attention, the timelines here are critical. Firms that will come into scope over the next two years must begin prioritizing now, before it's too late, she says.

Under The Scope

The IM requirements are mapped out in the global framework agreed by the Basel Committee and Iosco, and are adopted under the European Market Infrastructure Regulation (EMIR).

Affected firms are required to exchange margin on over-the-counter (OTC) derivatives contracts that are not cleared through a central counterparty clearinghouse. The

Andrew Kayiira
Isda

regulation was first introduced by BCBS and Iosco in September 2016 and is being phased in over four years, capturing counterparties depending on their categorization and derivatives volumes—otherwise known as their aggregate average notional amount of non-cleared derivatives.

Bank of Montreal (BMO) Capital Markets is just one of the many firms that will come into scope in phase four of the IM rules in September 2019. Liz Lindsay, director of BMO Capital Markets, Collateral Management Group, further explains that the strain on smaller firms that are stifled by restrictive budgets, within phase five, is likely to also increase pressure on larger institutions—ultimately requiring them to pick up the tech bill.

In some cases, many pension or hedge funds will struggle to implement industry technologies and services, including Isda's Standard Initial Margin Model (Simm), a common methodology used to calculate initial margin for non-cleared derivatives. Many of the platforms used to digitize the initial margin process are largely unattainable to smaller counterparty firms—including those used to calculate margins, manage the negotiation process and exchange collaterally more effectively.

"Those firms are looking to the dealers to provide some of these services and in fact pay for some of these services. Otherwise, it turns into a fairly manual process for the dealers," she says.

There is also growing concern that firms in phases four and five are less educated about the extent of the regulatory challenges ahead.

"Phase four and phase five are capturing firms of decreasing size, and in reality, often a decrease in resources available to look at regulation related to derivatives portfolios," says Thomas Griffiths, co-CEO of TriCalculate, TriOptima's IM calculation service. "So they are really the types of clients that require some external help."

Digitizing IM

In response to the rules, Isda launched Create IM on January 31, following the release of a beta version in September 2018. The soft launch attracted just over 50 institutions to test the technology, amounting to more than 540 users. The tool enables relevant firms to digitize initial margin processes, including managing, executing, and simultaneously negotiating IM documentation with other counterparties. It is designed to allow clients to capture, process and store legal data while delivering it in a structured electronic format.

"We have built-in interactive dashboards for firms to utilize, with audit features for workflow transparency throughout the whole lifecycle of the negotiation process," explains Isda's Kayiira. "Firms can benefit from automatic reconciliation of both standard elections within the Isda standard framework, but also as these are OTC [trades], we allow for the flexibility of bespoke provisions."

Create IM is a web-based product with built-in user management features that will allow counterparties to manage workflow and designate front-office roles by job function, such as administrator or manager, and those responsible for approving contracts. The tool will provide an environment for collaboration and communication, where firms can directly comment on IM terms and interact with each other on live contracts. Kayiira emphasizes the value of digitizing the negotiation process to enable clients to capture data in a structured format and extract insights to be used elsewhere within a firm to support functions such as risk management, resource management, analytics, and other applications. The data can be downloaded or delivered via individual counterparty systems using application programming interfaces (APIs).

"It is this access to structured legal data, where it is frankly the first time you will have legal data in front of you in various forms for you to pull into your systems or send externally," he explains. "With the connectivity, they can leverage this to read and write APIs and then allow for firms to fully automate the process."

Targeting a similar space, TriOptima introduced TriCalculate, a risk analytics tool for initial margin compliance, which calculates IM and informs trading decisions to reduce margin costs. The technology provides insights into IM calculations to enable clients to identify and prioritize counterparty negotiations. TriCalculate is a standalone offering within TriOptima's product suite, which also includes its TriResolve reconciliation and reporting solution, its TriResolve Margin collateral management service, and integration with AcadiaSoft's Initial Margin Exposure Manager. The combined services enable clients to access the offerings through a single interface.

"The workflow for initial margin is important," explains TriCalculate's Griffiths. "TriCalculate provides the analytics and calculations for initial margin as part of the full TriOptima suite of services, which ensures clients have one seamless workflow."

TriCalculate is currently up and running with some clients, though Griffiths says there is more urgency in the run-up to the next deadline because such a vast number of firms will be caught by the rules.

"There are potentially over 1,000 firms coming into scope in phase four and five, so it is really important that firms start to look at the analytics sooner rather than later. There will be a real rush coming into the deadline. So the sooner people get started, the better," he adds.

Bridging Solutions

While some vendors are developing technologies to service the growing market, others are forming alliances to strengthen their competitive edge. On January, IHS Markit announced a partnership with AcadiaSoft to provide an integrated offering to mutual clients, similar to TriOptima's and Isda's collaboration with the provider on January 30. On February 20, SmartStream teamed up with Numerix to provide a packaged tech offering for collateral management of over-the-counter derivatives.

Richard Barton
AcadiaSoft

As the industry's regulatory deadlines near, a key objective of the alliances is to provide a wider variety of technology options to clients and reduce the cost of compliance. A common variable to the IM network is AcadiaSoft, which claims to serve as many as 95 percent of firms within phase one, two and three of rules. The AcadiaSoft hub provides a community-based infrastructure and integration services using common adapters and APIs. The common platform enables other third-party providers to connect into the system and interoperate with other applications.

"Providing those common repeatable adapters saves everybody from having to build their own point-to-point integrations. That is the key benefit of a community-based infrastructure where you mutualize a lot of the cost and technology decisions into something like AcadiaSoft," says Richard Barton, head of strategic new product development at AcadiaSoft.

The AcadiaSoft hub is designed to provide an overview of the initial margin process but although it offers a variety of margin and collateral management services within its single platform, counterparty firms can choose to use a range of other technologies provided by partnering firms. Much of the industry has had to adapt to a different competitive nature in bridging solutions to help to provide a more flexible workflow and automate initial margin lifecycle processes through integrated platforms.

"There is overlap with Acadia in what we do, and we understand there are competitive angles, but what we are trying to do is enable customers that might want to use AcadiaSoft for a specific component of their margin workflow and IHS Markit for another component," IHS Markit's Amir-Ebrahimi says. "Even if we might be competing, we want to make sure that we connect with each other so it's easier for customers to ultimately have a more holistic solution."

Taking to the Cloud

As vendors are rolling out and testing platforms to service the next wave of counterparty firms, some banks and asset managers are turning to emerging technology to offload their margin and collateral management functions. On February 7, Deutsche Bank announced it will be integrating CloudMargin's web-based platform, which is stored on a public cloud. This will provide the bank and its clients with individual login portals for visualizing and managing the collateral management process. Users will have access to the same version of record, designed to minimize operational risk and eliminate discrepancies.

Nosheen Amir-Ebrahimi
IHS Markit

Joseph Macdonald, global head of collateral optimization trading at Deutsche Bank, explains that one of the key objectives to using cloud technology is to benefit from automated upgrades and software updates—enabling all users to access the most recent version of the collateral management lifecycle.

"The alternative to the cloud is on-premises solutions and these typically, by the time they are integrated into our platform, are already regarded as obsolete and needing to be updated," he adds. "But with cloud, we are always on the latest version and every time something changes, we get the benefit of that and so does every single one of our clients logging into the platform."

Although many financial firms are still reluctant to embrace cloud technology for managing critical functions, Macdonald explains that the decision to introduce CloudMargin was an obvious and practical one. He says cloud providers have come a long way in the development of their security architecture to meet the standards of heavily regulated financial institutions.

"They do all of the kernel patches and have a whole [security] program for that. That is their job and they are real specialists at making sure the servers they provide and the service they provide is secure at that level," he adds.

Deutsche Bank is also working with CloudMargin in an effort to provide additional services for its clients in the run-up to phase four and five of the initial margin rules for non-cleared derivatives. As tier-one banks and asset managers endure a heavier serving of regulatory scrutiny under the rules, the partnership with CloudMargin will digitize the process for Deutsche Bank's smaller counterparty clients and enable them to utilize the service for free through an individual login.

The Compliance Roadmap

As the countdown continues, many are waiting for a response to the advocacy letters submitted by Isda in 2018 to BCBS and Iosco to request relief for some smaller firms that will be subject to the initial margin rules in phase five of the implementation. Statements published by the industry body outlined that the final phases will present "serious logistical challenges" due to the volume of firms that will be brought into scope over the next 18 months. It showed that many firms with a low IM threshold, of under $50 million, will not exchange IM under some circumstances and their compliance with the rules would offer little benefit to regulators in measuring systemic risk for the global markets.

"The scary thing is the sheer volume of the 2020 phase-in. We're anticipating on-boarding hundreds of counterparties in that phase and whatever the number is, it multiplies [the workload] by two. So there is a considerable workload to be done," explains BMO's Lindsay.

Some of the initiatives have looked at raising the gross notional threshold to $100 million, relieving some of the burden on the industry and removing phase five firms. Other suggestions include the removal of foreign exchange swaps and forwards from the notional calculations, as well as off-loading the burden of phase four and five firms from using globally accepted IM models, including the Isda Simm. Macdonald explains that proposed initiatives would defuse the pressure on smaller firms to implement costly technology systems and ease the pressure on the rest of the industry waiting to onboard or set up multiple digital relationships with hundreds of firms expected in the final phase.

As a rule of thumb, firms that fall under the $50 million bilateral threshold are not required to be papered for IM agreements—although if they breach that amount, they will subsequently be required to do so for every trade—and therefore many believe that this is a key driver in raising the requirements to $100 million and alleviating unnecessary strain on an already heavily regulated industry. Some believe that only time will tell on whether relief will be granted for the final phases, but others are hoping that the ambiguous nature of the regulation and the unnecessary challenges it presents will allow the pendulum to tip in favor of reigning in the scope of the regulation.

"If we are not required by the rules to actually post the IM for those with a 50 million threshold, and do not have to go through all of the paperwork and all of the manual setup that we currently have, this will allow us—without actually changing the rule itself or changing the spirit of the rules—to solve the bottleneck problem of trying to bring in over a 1,000 firms on board on one date. It will give us a better run way to do that," says an executive at a global investment firm.

Hopes are fading that this will be approved, however. While the industry awaits a verdict, as experts have pointed out, little time remains. W

Bracing for DATA DISRUPTION In Case of No-Deal Brexit

In February, UK and EU regulators made announcements expected to shed light on the future of data sharing and alleviate some uncertainty post-Brexit, but industry experts tell Josephine Gallagher and Amelia Axelsen the latest statements fall short of lifting the real burden on affected firms.

European regulators are issuing clarifications on data sharing as Brexit's March 29 deadline draws closer, but there are still deep concerns, should the UK exit the EU in a no-deal scenario.

On February 5, the European Securities and Markets Authority (Esma) announced that should the UK leave the EU without an agreement in place, the UK's Financial Conduct Authority (FCA) would stop sending data to Esma and would no longer have access to Esma's IT applications and databases. That means Esma will not receive or process UK data post-Brexit, nor will it publish UK data on the Esma website. The disruption is set to particularly impact transparency calculations of both the revised Market in Financial Instruments Directive (Mifid II) and the Markets in Financial Instruments Regulation, raising questions about the regulatory oversight of the UK and EU markets.

"Esma recognizes that there is continued concern for the quality and completeness of data. The industry would welcome any delay that would allow time to make sure the data is complete and accurate in a very similar way that Esma took that pragmatic approach to the double volume cap at the start of Mifid II, but right at this moment in time we don't know what we're dealing with." **Rebecca Healey, Liquidnet**

"There is still a high level of uncertainty as to the final timing and conditions of Brexit," the statement reads, and the regulator indicated that if the timing and conditions change, Esma will adjust its approach.

Steps have been taken in some areas. On February 1, the FCA agreed memoranda of understanding (MoUs) with Esma and EU member state national regulators to enable the continued cooperation and exchange of cross-border information, in the absence of a withdrawal agreement. The MoUs are expected to provide a temporary framework for supporting cross-border market supervision, enforcement, the flow of data and information sharing.

Additionally, MoUs will be placed between the FCA and Esma to allow for the continued supervision of credit rating agencies and trade repositories (TRs).

Regulators had been concerned that, without these agreements, the flow of data between the UK and the EU would be abruptly cut off, should a no-deal Brexit occur on March 29. In that scenario, information critical to various regulatory activities would become difficult, if not impossible.

Although these regulatory efforts have helped to alleviate some cross-border concerns on a regulatory level, industry experts say more steps should be taken to address more practical issues.

"It could have been more helpful," says Michael Thomas, a partner at law firm Hogan Lovells. "What they could have done is assess the UK TRs as being equivalent from a third-country perspective and provided even greater continuity with the existing regime."

Brexit is proving a challenge for all types of trading and reporting firms, which are faced with relocating operations from the UK to within the EU27, migrating systems, transferring reporting data, moving personnel and heavily investing in no-deal contingency plans.

"I don't think it has allayed any concerns [for industry firms] as far as I can see," says Virginie O'Shea, research director at Aite Group. "It's more for the regulators, for the transparency of information between them."

She says the real concerns involve operational factors, rather than regulatory reporting. As firms are left scrambling to deal with the increasing cost of Brexit, little time or budget is left for anything else. For many, in the lead-up to April, the priority is to safeguard core business functions and continue servicing UK and EU clients.

"It's more about the operational aspects of Brexit rather than the regulatory reporting aspects that have worried people. No one worries about the regulatory reporting side unless you are going to get caught and fined for it," O'Shea adds.

Alex Dorfmann, senior product manager at SIX, says a no-deal withdrawal poses huge operational risks because no one is certain the exact impact this will have, or knows exactly how they should prepare.

SIX receives data from UK venues and UK manufactures, but the processes and analytical systems will all need to change to reflect data transactions made solely in the UK and in the EU without the UK. In addition, SIX will be responsible for informing UK clients about data calculations on control systems, benchmark ratios, and calculations that are constantly shifting based on the market. These calculations will be based on different data and different assumptions, and with data missing, this will not be possible.

"If something like [a no-deal Brexit] happens, then all of a sudden a chunk of data is not usable, or you need to alter the data, then it is not only that the data changes, but the whole set of analytical systems and workflows and processes that come with the data also changes," Dorfmann says.

Rebecca Healey, head of EMEA market structure and strategy at Liquidnet, says in a scenario where there's a post-Brexit data pause, firms need to ensure that they still have market access and the ability to perform regulatory obligations for trade and transaction reporting. For instance, European firms should confirm that they have licenses in place, and should provide employees with the direction and resources necessary to meet regulatory requirements. She also recommends that firms open a dialogue

with local regulators and regulators that will oversee the firm in the future to help with clarifications for firms that set up operations outside of the UK.

Withdrawal Woes On

On February 1, Esma released a statement on reporting obligations under the European Market Infrastructure Regulation (EMIR), in the event of a no-deal Brexit. The release covers issues regarding reconciliation, data sharing, portability, reporting and aggregation of derivatives positions. Esma has confirmed—as previously reported by *WatersTechnology*—that UK and EU TRs will have to be treated as separate legal entities following Brexit, requiring counterparty firms to split their reporting obligations between the two jurisdictions.

Hogan Lovells' Thomas says that although industry firms are continuing to enact their contingency plans, and the MoUs will look to minimize market disruption, third-country equivalence for EMIR reporting would avoid the breakup of reporting entities and ease uncertainty surrounding cross-border data-sharing between TRs.

"It still does require an equivalence agreement to be taken," he adds. "It requires international agreements on access and exchange of information. So it is good to know that part of the process is being completed in terms of the MoUs, but there is still other stuff to be put in place as well. The issue is the timing for when those additional pieces are to be put in place and whether there is going to be any gap after March 29."

Chris Cornish
RegTek Solutions

Firms still need to consider every factor without clarification from Esma in order to prepare, she says, although once the Brexit deal is struck, there may be time to lobby Esma for further delays, if necessary.

Esma's public statement affirms that EU TRs will have to cease inter-TR reconciliation activity with UK TRs, remove relevant derivatives associated with UK reconciliation, and terminate UK-related record-keeping beyond March 29.

Additionally, UK TRs will have to be recognized within the EU to have access to EU EMIR data, and under Esma's guidelines on portability, will have to transfer all UK TR data to a EU27 TR before the deadline. After Brexit, UK-based TRs will no longer be recognized as EU legal entities and will have to be authorized by the FCA to continue servicing their UK clients. Similarly, TRs hoping to service the EU market will have to be licensed as Esma-regulated entities ahead of the UK's departure from the bloc.

Chris Cornish, senior business analyst at RegTek Solutions, says data-sharing pains will largely be the most burdensome for TRs, who will be responsible for terminating all reports submitted by UK counterparties and central counterparty (CCP) clearinghouses with outstanding derivatives one month following the Brexit date. Another "mammoth" task will be removing all the EU27-to-UK, UK-to-EU27, and UK-to-UK derivatives from reconciliation, he says, which is expected to be completed four months after Brexit.

"This year was already going to be a busy year for transaction reporting teams as most start to get their Securities Financing Transactions Regulation projects off the ground and now Brexit is only adding to the burden," he says. "Regulators might be trying to make the transition as seamless as possible, but all these changes still add to the complexity and widen the scope for data quality issues."

Cornish says the FCA's plan to require UK trading venues to report for EEA members who are not operating through a UK branch are likely to pile onto the data problems, as the influx of that data could result in additional data quality failures.

Although the Esma statement has shed some light on EMIR compliance post-Brexit, many questions remain over reporting obligations for EU counterparty firms. One example is dual-sided reporting, in which both sides of a trade are responsible for reporting the details of that transaction—as opposed to other jurisdictions, such as the US, where the tradition is single-sided reporting from the senior regulated counterparty.

Virginie O'Shea
Aite Group

Joris Hillebrand, a managing director at Synechron Business Consulting, who heads up the firm's regulation practice, highlights that regulatory clarity is needed to understand the treatment of the UK as a non-European Economic Area (EEA) country after Brexit.

The FCA announced on February 1 that it is set to onshore "EU legislation and rules into the UK rulebook for a maximum of two years from exit," to minimize market disruption for firms, but as time is running out, concerns have emerged as to how or whether EU counterparties will have to report a UK counterparty's side of a trade going forward.

"After Brexit, the UK is not considered as an EEA country. So the question is whether they still have to report that trade or if they should submit a correction on the outstanding trade. As it is [currently] reported as an EEA counterparty, it will become a non-EEA counterparty [following Brexit]. I have not read or seen any guidance on that topic," says Hillebrand.

Healey says that with each clarification issued by Esma, new challenges come to light. For instance, what will happen with shared trading obligations without equivalence of trading venues? How will European instruments be traded, and on what venues? And how will that work on behalf of European funds?

"It's moving away from the lawyers and going to the actual applications of the law—and that's where some of these challenges are emerging," she says.

Michael Thomas
Hogan Lovells

Some of these challenges are already beginning to manifest. While Esma has concluded some MoUs with UK authorities to ensure that critical entities, such as CCPs, will be recognized as equivalent under EU law in a timely fashion—thus preventing a possibly catastrophic dislocation of the European derivatives market—it has said that it is planning to suspend some crucial functions until the dust can settle, in the event of a no-deal Brexit.

In particular, Esma will, it said in the February 5 statement, freeze its quarterly determinations of bond liquidity and its monthly threshold calculations under the double-volume cap, implying that the quarterly systematic internalizer (SI) determinations will also be affected. While this freeze is envisaged to last only two months, Esma warned that it could be longer, should the quality of the data is receives to perform said number-crunching not be up to the required standard.

Healey says regulators are keenly aware of the potential data issues that could arise following Brexit. Delaying quarterly calculations for SI determinations for equities and bonds scheduled in May to August is one example, outlined in Esma's February 5 statement, of how the regulator is trying to quell problems.

"Esma recognizes that there is continued concern for the quality and completeness of data," she says. "The industry would welcome any delay that would allow time to make sure the data is complete and accurate in a very similar way that Esma took that pragmatic approach to the double volume cap at the start of Mifid II, but right at this moment in time we don't know what we're dealing with."

Although she says the industry welcomes any type of clarification due to the degree of uncertainty, the political environment in the UK is not ideal for Esma, which relies on clarification from politicians. Without the UK Parliament's final decision, the entire financial services industry in Europe is left to grapple with unpredictability. But for now, preparing for a worst case scenario is the wisest plan. W

Hamad Ali and Jamie Hyman provided additional reporting for this story.

ALT DATA OVERCROWDING:

Strategies to Keep Providers from Getting Lost in the Pack

As alternative data companies battle for capital and a coveted spot in investment managers' portfolio strategies, they are turning to bespoke marketing and partnerships to stand out in an industry where firms still struggle with data science resources. Amelia Axelsen reveals how alt data providers who fail to tailor sales pitches to individual firms or produce easily accessible datasets may squander business opportunities.

For alternative data consumers, the shop windows glitter with potential. Providers offer innovative datasets that range from satellite imagery of crop productivity for commodities and futures traders to datasets comprised of US labor statistics projecting employment trends to spreadsheets of consumer credit card purchases that could predict trends ahead of official earnings announcements.

Alt datasets have evolved significantly from the days when the only example of the obscure metrics was a compilation of data on how many cars visited a Walmart parking lot in a given quarter to predict future earnings. Now, alt data providers continuously innovate and deploy unique, advanced technologies to develop new datasets to separate from the herd.

In 2008, there were only 100 alt data providers in the space, a number expected to exceed 450 in 2019, according to alternativedata.org, an alt data community formed by former traders and quants.

George Mussalli, CFA, chief investment officer and head of research, equity, at PanAgora Asset Management, says he receives dozens of requests from data providers every single day.

In an increasingly crowded and competitive field, it's easy to get lost in the hype. While spending for alt data is not expected to wane, consultants and alt data vendors predict that 2019 will be a year of consolidations and partnerships, to gain exposure and stay in demand.

> “Getting traction in finance takes a lot of time and energy, for two primary reasons: These are big, slow-moving institutions and they don’t necessarily want to adopt things quickly, but on top of that, there’s the procurement cycle. Getting that first sale to a bank takes time because you have to get through compliance and get a lot of sign-off, so even if they desperately want it, it still takes months to complete a sale.” **Evan Schnidman, Prattle**

Practical Packaging

Accessibility is a necessary part of the equation for alt data providers hoping to attract new business, as alternative data’s proliferation is currently outpacing most firms’ ability to effectively leverage the data. A mere 12 to 20 firms in the US and Europe have the capability to turn a terabyte of data into alpha, and levels of expertise in managing alt data vary wildly, according to Bruce Fador, managing director of Fador Global Consulting, which specializes in product launch and positioning.

“If you don’t have sophisticated people in-house who know how to operate and utilize [research and datasets], then you’re still at square one and still kind of stuck,” he says.

For alt data providers, the ability to test new datasets and show clients how they work is just as important as the datasets themselves. According to Fador, hedge funds that excel at factor modeling can easily discern if a dataset will generate alpha, but other firms may not have the resources to effectively evaluate if a dataset is as valuable as a vendor says.

“I don’t care if they’re the hottest thing. … [Alt data providers] have to have very specific bread crumbs to lead people to understand how their datasets correlate to success,” he says. “If the data is predictive or provides a post rear-view mirror look, [demonstrating value] is not easy to do.”

Fador says successful data providers meet with potential clients equipped with an example or a trial where they conducted independently run tests on the data, back-tested it for several years, and provide transparency on the data sourcing. His advice to CEOs and founders of alt data companies is to not only make pricing adjustable, but make the data accessible.

According to Rich Newman, senior vice president and global director of content and technology solutions at FactSet, datasets are frequently difficult for firms to integrate because vendors have different ways of combining data.

Newman says clients can imagine the datasets’ potential, but they may not know how to translate alt data into alpha. FactSet prioritizes concrete examples in their client pitches.

“For FactSet as an organization, the big growth—in addition to our support structure—is moving away from [Microsoft] Excel-based, traditional financial analysis around fundamentals and estimates to more data science-based methods to show clients how would we build an application,” he says. “For example, demonstrating how we would link shipping data and news information.”

Alt datasets are not cheap, with some costing up to hundreds of thousands of dollars depending on return on investment, and ensuring datasets are accessible is one way for alt data providers to gain an edge when commanding steep fees.

Warren Breakstone, chief product officer of data management solutions at S&P Global Market Intelligence, says some of the most attractive alt datasets are still in “pretty tough shape.” Most of his clients report that they spent 80 percent of their time fixing data quality and only 20 percent on the value-add, he says.

Prescriptive Preferences

On the other side of the coin, alt data providers have to customize to attract clients who know exactly what types of datasets they need.

Jesper Goor Pedersen, head of algo quants at Nordea Bank, says the bank chooses providers that have transparent data so it can easily discern what the data is trying to reflect, and vendors that normalize the datasets. One alt data source that the firm is particularly interested in is timestamp activity data from the electronic communication networks (ECNs), because the feeds can be integrated into Nordea’s existing infrastructure.

“We have our own market view that we build based on what we think makes sense, and the alternate sources are there to validate best execution for clients from a third-party provider,” he says.

Niklas Jahnsson, who works in algo quants and insights at Nordea Markets, says more useful datasets are being produced as a result of regulatory requirements, but poor quality makes the data difficult to use

George Mussalli
PanAgora Asset Management

at Nordea. He says there is less value in pursuing certain alt data sources such as news and twitter sentiment datasets and they prefer high-quality datasets that help bring transparency to a very fragmented foreign exchange (FX) market, with a focus on the Nordics.

"There's always a relation between a news event and what happens with price and you need to react to that, but currently, due to the way that data is structured and how difficult it is to access, the barrier for entry for us is quite high. It also depends on how big of a bank you are," says Jahnsson. "In the FX markets, the market is very fragmented, but the way to increase transparency is through datasets, and that's where we see the big value coming in."

PanAgora is another example of a client with specific, unique preferences. Mussalli says the quantitative investment firm has resources and extensive knowledge of alt data, since it has been using it for more than a decade and has tested hundreds of datasets.

Based on metrics PanAgora prioritizes, the investment team has built a fundamental thesis on what types of data they value most highly: high-quality data that has few mistakes and missing data elements and outliers, with a preference for raw datasets. They also avoid popular vendors and alt data providers that are trying to sell technology in addition to data.

PanAgora is not interested in testing datasets if the companies specialize in the area that PanAgora is trying to target, but for some firms, alt data providers are expected to prove their datasets are worth it.

Bruce Fador
Fador Global
Consulting

Evan Schnidman is founder and CEO of Prattle, an alternative data and technology company that quantifies news, articles, and speeches and produces metrics for how linguistics patterns tie into financial price movements. He says the firm used to provide multi month-long trials so clients could sample Prattle's technology and datasets, but there was a problem: No one used them.

So Prattle adjusted its strategy to get clients to actually trial the products. Schnidman says the vendor provides documentation tailored to each use case, then explains the product and how it could be useful for a particular client. Prattle then provides a structured evaluation with a shorter trial where benchmarks are set up for what the firm is trying to achieve. This approach is much more hands-on and helps deliver the data's potential to the client to fulfill its specific needs, he says.

Banks and asset managers are approached by so many different data providers that it is important for them to be able to easily assess whether a dataset is worth the effort, says Chris Hammond, executive director of research signals at IHS Markit. He says the data vendor deploys research and use cases to help potential clients "understand the data and allow them to make a decision whether they think this should be something they spend some resources on right away or if they want to focus on another dataset."

Rich Newman
FactSet

Promotional Partnerships

For alternative data providers, carefully tailoring a client pitch is one way to stand out, but even getting in the door can be a struggle when overcrowding in the market can put a squeeze on funding opportunities. Newman says he is often approached by alternative data providers that ask to be acquired by FactSet, and Fador says some providers are struggling to raise capital, so he expects to see an uptick in acquisitions in the coming year.

"At some point, [alt data providers] need to generate revenue or else it's just an experiment or a hobby, not a business," he says. Fador doesn't see a funding drought just yet, but if alt data vendors don't evolve their messaging or adjust their strategies to appeal to banks and investment managers, he predicts that the alt data marketplace will get a lot less crowded.

"Vendors are there still standing and part of it is that they have a handful of clients that keep them going, then they raise some capital, and once a venture capitalist puts money in, people are given an adequate amount of time to figure out if it's a business opportunity or if it's not going to have strong enough legs or draw to scale quickly on the revenue side," he says. "I haven't seen any wholesale going-out-of-business sales yet, but I do believe that if things don't change and if people don't figure that out then it's going to happen."

Warren Breakstone
S&P Global Market Intelligence

Schnidman says the first generation of fintech companies born after the 2008 global financial crisis are failing to evolve their technology, but competing with them is still a challenge because they are well-funded and well-connected. He says he is confident in Prattle's technology, but that getting in front of banks and asset managers is not always an easy endeavour.

"Getting traction in finance takes a lot of time and energy, for two primary reasons: These are big, slow-moving institutions and they don't necessarily want to adopt things quickly, but on top of that, there's the procurement cycle," says Schnidman. "Getting that first sale to a bank takes time because you have to get through compliance and get a lot of sign-off, so even if they desperately want it, it still takes months to complete a sale."

While providers wait for agreements to funnel through for internal approval, partnerships are a way to gain exposure.

Open:FactSet, FactSet's alternative data arm, connects asset managers with a number of alternative data vendors in one marketplace through the cloud and other tools. Open:FactSet works with vendors on a partnership model, wherein FactSet arranges all the contracts with banks, conducts client relations, provides support, and completes all the integration, while the providers get to focus on data.

Newman, who helps oversee Open:FactSet, says the vendor isn't in the business of choosing "winners or losers," which is why it prefers partnerships with alternative data vendors rather than buying them outright.

The humble approach of vendor impartibility does come with a caveat: Alt data providers have to be financially stable and produce high-quality information in order to be put into Open:FactSet.

Fador says inputting a start-up's dataset poses a risk for asset managers. If a company fails, removing datasets or adjusting internal IT models is a complicated process.

Dave Pope, managing director of quantitative research and an alt data scout at S&P, looks for new providers at conferences and through online resources. He says one of his main criteria is data quality and he avoids datasets with no discernible personal identifiable information (PII). Similar to FactSet, he says data vendors approach S&P to bring their content to the market.

Prattle has partnered with Nasdaq Analytics hub, Open:FactSet, Bloomberg's alt data platform, and has a close relationship with S&P, among others. Schnidman says partnering with bigger vendors provides marketing opportunities and credibility. The downside is that partnerships require a lot of coordination when working with clients or negotiating sales, he says.

Schnidman says that even though the more established data providers have an existing client base, solid infrastructure, and great teams, they are struggling with how to frame alternative data. Selling these datasets requires a new set of sales skills, he says, because alternative data isn't just data, but could also be considered research in some regards.

"It's interesting to see that even those companies that are ubiquitous and have all the resources in the world are facing some of the same struggles we face," says Schnidman. W

Anthony Malakian

Get the Pitchforks

While no one involved in the building of the stalled Consolidated Audit Trail is free from blame, Anthony says there are reasons to believe the CAT won't ever materialize, regardless of the plan processor.

Perhaps 10 years from now we'll all look back at the building of the Consolidated Audit Trail (CAT) and have a laugh assured in the fact that it was finally created and is running effectively—but today is the day for ridicule.

As James Rundle and I discovered while writing our feature on the building of the CAT (*see page 12*), there is plenty of blame to go around. So let's do just that—let's play the blame game.

The Obvious Choice

For many, the biggest offender is Thesys Technologies, which won the original bid to build the CAT through its Thesys CAT subsidiary. It was removed as the plan processor at the end of January by the self-regulatory organizations (SROs). After speaking with dozens of experts on the subject, it became clear that Thesys low-balled its bid to build the CAT and for a multitude of reasons was never able to right the ship after the project started to go awry.

But here's the problem with blaming Thesys as I see it: Yes, it came in well under the other bidders and perhaps overplayed its success in building the Market Information and Data Analysis System (Midas)—a similar platform that the US Securities and Exchange Commission (SEC) uses to surveil the markets—but the SROs had to know that it was an unrealistically low offer.

The fact is that they saw all the other bidders, some of which said that it would take hundreds-of-millions over five years to build the CAT. How is it possible that tougher questions were not asked of Thesys when its bid was in some cases 12 times under the highest bids? Either they were naïve or they did not do a proper job of vetting the candidates. Or maybe it's option number three: They didn't care that the bid was low because they never wanted this thing built in the first place and they knew that by taking a low-ball bid it would be tough to get such a complex platform off the ground. And here's another problem: The SROs—considering they comprise a group of different kinds of organizations—haven't adequately explained why they chose to ignore the fact that some said it would cost $300 billion to build the CAT, and here is why, while Thesys said it would take far less.

Again, this is just my opinion, but the SROs should be taking the majority of blame here. And the SROs are followed closely by the SEC, which has only recently begun to exert its influence over this process.

“ The problem is that if you are a cynic (which I am) then the decision to remove Thesys as the plan processor is just the latest delay tactic in a long line of delay tactics deployed by the SROs.

Was the CAT ever intended to get off the ground?
For more information and readers' feedback please join the discussion at **waterstechnology.com**

Take Action

It seems that the SEC both wants the CAT and wants absolutely nothing to do with it. The Commission—which, somewhat in its defense, has had different leaders throughout this process that has dragged on for several years—likes the idea of the CAT. After the Flash Crash (and the SEC's impotent attempts to explain the reasons for it) there was a clear need for a platform that could surveil the markets in real time. But it also did not want to have to take the lead on its construction—and nor should it have to. But as this project started to fall behind schedule, the SEC made a conscious choice to stay quiet. No enforcement actions, no grandstanding—just business as usual.

Over the past year, the SEC has taken a greater interest in the building of the CAT. And, as best I can tell, the pick of Manisha Kimmel as the so-called "CAT Tsar" has been quite popular among market participants.

The problem is that if you are a cynic (which I am) then the decision to remove Thesys as the plan processor is just the latest delay tactic in a long line of delay tactics deployed by the SROs. If that is indeed the case, then we're still nowhere closer to being able to explain the next Flash Crash or market irregularity. And you can't blame the cynics for thinking as they (we) do, because the SROs are all silent on the subject and the SEC is still not being as proactive as it probably needs to be if it really wants to get this thing up and running. W

Playing It Safe

Traders in the US, Europe and Asia behave differently. Wei-Shen Wong finds out how cultural differences can influence the popularity of certain algorithms.

Regional algo differences?
For more information and readers' feedback please join the discussion at **waterstechnology.com**

Cultural behavior and upbringing influence how people react in similar situations. Take, for example, how Chinese takeaway noodles are often portrayed on TV or in films. The person eating will often leave the chopsticks standing upright in the noodles. In many Asian cultures, this is a big no-no, as leaving them standing vertically symbolizes death, as though placing incense at the altar during a funeral. This serves as a reminder—albeit somewhat morbid—that things are often portrayed and done differently in different cultures. Trading is no different.

In a recent discussion with Scott Kartinen, head of algorithms and Stuart Thompson, head of execution and quantitative services for Asia-Pacific at Liquidnet, we spoke about how certain algos are more popular among Asian traders compared with their counterparts in the US and in Europe.

This conversation stemmed from Liquidnet upgrading its algos. It is looking to launch the enhanced version of its volume-weighted average price (VWAP) algo in Asia due to the higher demand and interest for it in the region. VWAP is a trading strategy that balances execution with volume.

"Traditionally, things would generally migrate from the US, to Europe and then to Asia. But we've started to flip that model around," he said. "There's a lot more VWAP trading that goes on in Asia than other markets so it might make sense for us to start here because there's a bigger appetite for VWAP trading [strategies]."

Thomspon said about 46 percent of total algo flow in the region is VWAP-based, on the electronic trading side. In the US, it is about half of that. "It's a risk-averse strategy," he said. "It's culturally dependent. If you look at Japan and Hong Kong, it's a traditional way of trading and ultimately it's a safe way of trading on an overnight basis. So you have your European traders or US overnight traders who are not looking to take your risk because they are not able to visualize and look at the trade live. They want to hand it off to a trading desk and ask to work VWAP because there's not going to be too much deviation from the VWAP price, whether it's plus or minus 'x' basis points. So you'll never be greatly skewed and it provides a level of comfort to the portfolio manager and the overnight trader," he said.

> "Things are often portrayed and done differently in different cultures. Trading is no different.

The next most used trading strategy in Asia is the percent-of-volume or POV strategy, at between 20 to 25 percent, while the remainder consists of implementation shortfall, or dark aggregator strategies.

Liquidnet aims to pilot the new version of its VWAP algo in the second quarter of 2019. It will incorporate some of the analytic models that Liquidnet owns via its acquisition of OTAS Technologies.

Liquidnet is currently testing and tuning a number of different signals to see which ones are best at determining when is a good time to trade, or slow down. "If you're going to deviate from a VWAP curve, you need a signal that's going to be consistently giving you good advice for when you should deviate and when you should not. It's all about tuning those signals and testing them and making sure they work both in and out of sample, so when you put it into production it'll give a consistent result," Kartinen said.

Liquidnet also plans to rebuild its algo infrastructure from scratch. Kartinen said one of the benefits of building a container—where Liquidnet stores and builds its algos—in-house is that it will be able to customize and change configurations to the infrastructure to control what the algo is able to do.

"If there are certain things we want the algo to do, [currently] we don't control every piece of the algo infrastructure. If we want to make a change to the way the algo behaves in certain cases, or we want to use a different type of model or piece of data we may in certain cases have to rely on the algo container provider to make changes so that we can ingest what we want from a particular model or a particular piece of infrastructure," he said. W

Human Capital

Rimes Appoints Former MSCI Exec Chairman

WatersTechnology has learned that Rimes Technologies, a provider of regulatory technology and managed data services, has named David Brierwood as its first-ever chairman of the board. He joined first Rimes' board in 2015 as a non-executive director, and is based in London.

Brierwood previously worked at index specialist MSCI. After serving in various roles at Morgan Stanley for 20 years—including as COO of the bank's equity division and COO of its institutional and retail securities group—he moved to MSCI in 2006 to serve as its COO, a position that he held until he retired from the company in February 2014.

Brierwood will help to steer the company that has been making inroads into the regtech space through its RegFocus software suite, having traditionally been known on the buy side for its benchmark and data products.


David Brierwood

The most recent addition to that package was a new managed service called RegFocus BMR Data Feed, which was rolled out in November to help users adhere to the European Benchmarks Regulation.

In addition to his role at Rimes, Brierwood is also a director at Greensill Capital, and a non-executive director at data provider Preqin.

From late 2014 to June 2018, he was a Crown Representative at the UK's Cabinet Office, an advisory role where said representatives work with government departments to ensure that they derive as much value as possible from external contracts.

SEC Taps FIF Vet Kimmel to Oversee CAT Implementation

The Securities and Exchange Commission (SEC) has named Manisha Kimmel as a senior policy advisor for regulatory reporting, to coordinate the SEC's oversight of the Consolidated Audit Trail (CAT).

She was most recently chief regulatory officer for wealth management at Refinitiv (formerly Thomson Reuters), which she joined in 2015 after 10 years at data industry association the Financial Information Forum, where she served as executive director and then managing director. Previously, she spent eight years as an industry consultant at Jordan & Jordan, and was a business strategy associate at ADP.


Manisha Kimmel

In addition, Kimmel has also served on the advisory committee for CAT NMS, and the SEC's Equity Market Structure Advisory Committee.

In her new role, Kimmel reports to SEC chairman Jay Clayton. "Manisha knows the value of orderly, deep, and transparent markets to our investors and our country. ... I am confident that her extensive experience and expertise in market data and regulatory reporting will further enhance the Commission's ability to effectively oversee the SROs' implementation of the CAT," Clayton said in a statement.

Qaravan Founder Joins OTC Markets Group After Acquisition

OTC Markets Group has a new senior vice president of market data following its acquisition of Qaravan, a software, risk and analytics vendor.

Qaravan founder Anthony Hodson joins the benchmarking data provider as it integrates Qaravan's core assets into OTC Markets Group, namely web-based applications for peer monitoring and competitor benchmarking aimed at bankers, regulators and analysts.

Qaravan's software includes Microsoft Excel tools and provides interactive versions of FDIC reports, plus analysis of associated regulatory data. Using a question-and-answer format, the application collects data and decision points, and then uses that information to create custom reports focused on key data points required by regulators. The data modules also generate reports for management, boards and regulators that include competitive intelligence, due diligence analysis, and benchmarking of industry peer groups, taking into account funding strategy, loan concentration, risk profile, and branch geography.

New York-based OTC Markets Group operates financial markets for 10,000 US and global securities. The acquisition of Qaravan provides banking data on more than 500 community banks that trade on OTC Markets, says Matt Fuchs, executive vice president of market data and strategy at OTC Markets Group, in a statement.

Young Moves from Deloitte to Bentham IMF

Data veteran Tina Young is now chief of staff for Bentham IMF, an organization that provides litigation finance and investment capital to plaintiffs and law firms for large disputes in the US and for international arbitration.

Young has worked in a number of market data manager roles in financial services for the past two decades, most recently in the strategy and analytics practice at Delloitte Consulting, where she was a senior manager in the data management and analytics team. Previously, she was an executive director and vice president of market data sourcing at JP Morgan. She has also worked in the latter role at Morgan Stanley.

Bentham IMF hired Young alongside Sidley Austin partner Dana MacGrath and Kirkland & Ellis partner Sarah Tsou, who have been appointed as investment managers and legal counsel responsible for sourcing and evaluating arbitration and commercial litigation matters that meet Bentham's investment criteria.

This is the second round of hiring at the company since its most recent launch—a $500 million fund with the potential to reach $1 billion—in November 2018. The hires, plus several others announced in December, establish gender equality for Bentham IMF's 10-person senior investment management team in the US.

ICE's Belcher Skates to London to Head EMEA Data Biz

Anthony Belcher

Intercontinental Exchange (ICE) recently appointed Anthony Belcher head of ICE Data Services for EMEA, based in London, responsible for the success of the exchange's data business in the region, and reporting to Lynn Martin, president and COO of ICE Data Services in New York.

Belcher was previously head of business development for ICE Data Services in New York, which he joined via the exchange's purchase of Interactive Data, where he spent just over eight years in various roles, including managing director of strategy and product management in New York, director of pricing and reference data in EMEA, and director of EMEA valuations.

Before that, he was a commercial business manager at Thomson Financial and a management consultant at Accenture.

Fitch Names Filanowski President of Solutions Arm

Fitch Group, the parent of ratings agency Fitch, has appointed Brian Filanowski president of its Fitch Solutions data business, replacing Ranjit Tinaikar, who is leaving the company after two years as president but will remain an advisor during the transition.

Brian Filanowski

Nat Luengnaruemitchai

Filanowski joined Fitch Solutions in 2014 as managing director and global head of data, technology, product and solutions. Before that, he spent three years at Bloomberg, including as business manager for new commercial initiatives, and head of strategy and business development for Enterprise Data Management, prior to which he spent just over six years at Thomson Reuters in various roles, including EMEA business owner for the vendor's pricing and reference data business, and global head of product management for its DataScope product. He also held product management roles at Interactive Data, Multex, and Telekurs.

In his new role, Filanowski reports to Fitch Group president and CEO Paul Taylor, who praised his "wealth of experience and understanding of both Fitch Solutions and the wider market we operate in."

Stock Exchange of Thailand Hires New Head of IT

The Stock of Exchange of Thailand (SET) has hired Nat Luengnaruemitchai as executive vice president and head of its information technology development group, part of the exchange's information technology division. His appointment was effective February 16.

Luengnaruemitchai has more than 20 years' experience in capital markets and information technology, most recently as the consulting member of technical staff at California-based computer technology giant Oracle.

He has also held roles at financial institutions and technology companies including Amazon, Credit Suisse, Merrill Lynch, Lehman Brothers and Bangkok-based Phatra Securities.

Luengnaruemitchai has a master's degree in information systems management from Carnegie Mellon University and a bachelor's degree in business administration from Chulalongkorn University in Bangkok.

Truvalue Taps ESG Vet Kuh for Indexes

Environmental, social and governance (ESG) data provider Truvalue Labs has hired ESG industry veteran Thomas Kuh as head of index, a new business being developed in partnership with German index operator Solactive.

His role will involve developing Truvalue's own index products, and working with partners that license Truvalue data to create indexes, as well as asset owners creating benchmarks and licensing ESG strategies as the basis for exchange-traded funds (ETFs) or mutual funds.

Kuh joins Truvalue from Benchmark ESG Consulting, an ESG advisory firm assisting companies with benchmark design and fund construction, where he was president. Before founding the firm in 2018, he was executive director of ESG indexes at MSCI, which he joined in 2010 as a result of MSCI's acquisition of RiskMetrics, where he was head of ESG indexes—itself a result of RiskMetrics' purchase of KLD Research & Analytics, where he held a range of positions over more than 16 years, including managing director of indexes, business development director, and sales and marketing director, having joined the company as a research analyst in 1993.

Kuh says the companies will construct indexes that "better serve investors who want to align investment and ESG objectives," and will provide "transparent and cost-efficient" exposure to its ESG factors.

He reports to Truvalue chief revenue officer David Silver. W

Thomas Kuh

SmartStream